

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA**

CASE NO. 1:16-CV-21199-CMA/O'Sullivan

ANDREA ROSSI et al.,

Plaintiffs,

v.

THOMAS DARDEN, et al.,

Defendants.

INDUSTRIAL HEAT, LLC and IPH
INTERNATIONAL B.V.,

Counter-Plaintiffs,

v.

ANDREA ROSSI and LEONARDO
CORPORATION,

Counter-Defendants,

And

J.M. PRODUCTS, INC., et al.,

Third-Party Defendants.

PLAINTIFFS' MOTION FOR PARTIAL SUMMARY JUDGMENT

Plaintiffs, Andrea Rossi and Leonardo Corporation (collectively, "Plaintiffs") move, pursuant to Federal Rule of Civil Procedure 56 and Local Rules 7.1 and 56.1, for summary judgment as to Defendants' Counterclaims Counts I, II, and IV, and Affirmative Defenses numbers 1-5, 7, and 8, and states:

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Introduction

In May of 2015, Defendants successfully sold approximately 4% of their company for \$50 million – equating to a \$2 billion valuation. In soliciting this deal, Defendants touted Plaintiffs’ intellectual property as the centerpiece, and most advanced, of several different Low Energy Nuclear Reaction (“LENR”) technologies in their portfolio. Just a few months later, after working with Plaintiffs for over three years, Defendants, for the first time, expressed to Plaintiffs their dissatisfaction with Plaintiffs’ performance under the parties’ license agreement and with the underlying technology. It is no coincidence that this written communication was provided between two distinct points in time: (1) the date in which Defendants received \$50 million and (2) the date in which Defendants were obligated to pay Plaintiffs \$89 million.

At its essence, this is an action for breach of an intellectual property license agreement (“License Agreement”). Neither side has claimed the agreement is ambiguous or otherwise unclear. At the time the License Agreement was executed, the underlying technology had not yet gained general acceptance in the scientific community. As such, the parties agreed to the achievement of certain test parameters as conditions precedent to two payments due under the License Agreement. First, the technology had to pass a 24-hour test (the “Validation Test”) in order for Leonardo to be entitled to a \$10 million payment. Second, the technology had to pass a 400-day test (“Guaranteed Performance Test” or “GPT”) in order for Leonardo to be entitled to an \$89 million payment. The License Agreement required the parties to agree upon an independent third party arbiter, defined in the License Agreement as an expert responsible for validation (“ERV”). The parties agreed upon the ERV, the ERV performed his agreed-upon duties, and the ERV issues two reports: one showing the technology passed the Validation Test, and one showing the technology passed the GPT. After the ERV issued his first report, Plaintiffs demanded and received payment of the \$10 million. After the ERV issued his second report, Plaintiffs demanded payment of the \$89 million.

Instead of making payment, Defendants have created numerous defenses and counterclaims in an attempt to avoid their contractual obligation. Significantly, despite claiming (1) they had no contractual obligation to pay the \$89 million after October 2013, and (2) they suspected that the GPT was being performed in some type of fraudulent manner as of its inception in February 2015, Defendants allowed Plaintiffs to continue to perform under the License Agreement without providing any notification of either until, at the earliest, November 2015. The reason for this conduct is readily apparent: Defendants were soliciting from investors funding in excess of \$50 million, premised on Plaintiffs’ technology, during the time period in which the GPT was being performed. Once the

funding closed in May of 2015, Defendants no longer needed Plaintiffs, setting the stage for the present lawsuit.

Plaintiffs are entitled to summary judgement as to their breach of contract claim, and to Defendants' applicable defenses and counterclaims.

Statement of Undisputed Material Facts

I. The Parties, the Agreement and Amendments, and the Assignments.

1. Plaintiff, Dr. Andrea Rossi (“Rossi”) is the inventor and owner of a disruptive technology that provides for the creation of heat energy in a safe and efficient process using a combination of unique fueling agents and catalysts. Rossi has successfully patented this technology globally, receiving patents from, *inter alia*, the USPTO (patent no. 9,115,913 B1) and WIPO (patent no. 2016/018851 A1). *See* Rossi Aff. ¶ 1, appended hereto as **Ex. 1**.

2. Defendant Cherokee Investment Partners, LLC (“Cherokee”) holds itself out as “an investment company that blends capital with creativity, experience and resolve provide superior financial, environmental and social returns for investors, partners and communities.” *See* Cherokee Depo. Tr., appended hereto as **Composite Ex. 2**, at 21:12-20; CherokeeFund.com, appended hereto as **Composite Ex. 2-A**.

3. Defendant Thomas Darden (“Darden”) is the CEO of Cherokee, and Defendant John T. Vaughn (“Vaughn”) is the Venture Investment Manager of Cherokee. *See* <http://cherokeefund.com/team/>, appended hereto as **Composite Exhibit 2-A**.

4. Defendant Industrial Heat, LLC (“IH”) was formed on October 24, 2012, two days before the License Agreement at issue was executed. *See* IH Depo. Tr., appended hereto as **Composite Ex. 3**, at 42:2-6.

5. On October 26, 2012, Leonardo, Rossi, and IH entered into a License Agreement for the purchase and territorial license of Rossi’s Energy Catalyzer intellectual property (the “E-Cat IP”). *See* License Agreement, appended hereto as **Ex. 4**, at 18.

6. Section 3 of the License Agreement provided that the total purchase price for the license was One Hundred Million Five Hundred Thousand Dollars (\$100,500,000), payable in 3 tranches:

- a. \$1.5 million upon execution;
- b. \$10 million upon successful completion of a 24 hour validation test (“Validation”); and
- c. \$89 million upon successful completion of a 400-day guaranteed performance test (“Guaranteed Performance”).

7. On April 29, 2013, the parties executed the First Amendment to the License Agreement, appended hereto as **Ex. 5**; Countercl. ¶ 46. The First Amendment revised, *inter alia*, sections 3.2(a) (time for Validation), 4 (Validation Protocol), and 16.7 (Assignment) of the License Agreement. *See id.*

8. Section 3.2(a) of the License Agreement governs the purchase of the 1MW Plant for \$1.5 million. That section, as amended by the First Amendment, states in pertinent part:

Upon execution of this Agreement, the Company will pay to Leonardo One Million Five Hundred Thousand Dollars (\$1,500,000) which amount shall be deemed to include full payment for the Plant. In the event the Plant is not delivered or Validation is not achieved within the time period set forth in Section 4, the full \$1,500,000 will be refunded to the Company within two business days of its request. *A refund of the \$1,500,000 will not be provided for any other reason and no other refund will be provided for any reason.* ... The Plant will be available for Validation and delivery on April 30, 2013.... (emphasis added, **Ex. 4.**)

9. On April 29, 2013, IH assigned its rights under the License Agreement to IPH. *See* Assignment and Assumption of License Agreement appended hereto as **Ex. 6**; Countercl. ¶ 47.

10. In October 2013, Defendant IH, Rossi and Leonardo executed the Second Amendment to the License Agreement, appended hereto as **Ex. 7**; Countercl. ¶ 62. As explained *infra*, the Second Amendment revised section 5 (Guaranteed Performance) of the License Agreement. *Id.*

11. On or about September 12, 2014, IH and IPH entered into an amended agreement intended to clarify the Assignment and Assumption of License Agreement. *See* Am. and Restated Assignment and Assumption of License Agreement (“Amended and Restated Assignment”), appended hereto as **Ex. 8**; Countercl. ¶ 47. The Amendment, *inter alia*, (a) clarified that the 1MW Plant was the only interest that in the License Agreement that would remain IH’s property; and (b) IPH would pay \$460,000 in consideration for the assignment of the remaining interests under the License Agreement. *See Ex. 8* ¶ 2.

II. Performance by Plaintiffs.

A. Delivery of the 1MW Plant and Validation.

12. In October 2012, pursuant to section 3.2(a) of the License Agreement, IH tendered the \$1.5 million payment for the 1MW Plant. *See* Countercl. ¶ 4; **Composite Ex. 3** at 105:9-15; Darden Depo. Tr., appended hereto as **Ex. 9**, at 115:25-116:4.

13. Section 4 of the License Agreement, as amended by the First Amendment, governs Validation. The amended section states, in pertinent part:

The Validation will be made in the factory of Leonardo in Ferrara, Italy on April 30th and May 1, 2013.... “Validation” will be deemed successful and achieved when the expert responsible for validation (“ERV”) certifies that the performance standards for the Plant set forth in Exhibit A to [the First Amendment] have been met. ... The ERV will be chosen by mutual agreement between Leonardo and the Company.... (**Ex. 4.**)

14. The parties mutually agreed to designate Fabio Penon as the ERV. *See* IH-00099334-36 (4/24/2013 email between Rossi and Darden), appended hereto as **Ex. 10**; **Composite Ex. 9** at 85:1-21; **Composite Ex. 3** at 128:2-11.

15. Plaintiffs and Defendants mutually agreed to the Validation Protocol contained in Exhibit A to the First Amendment to the License Agreement. *See* **Composite Ex. 3** at 115:4-25, 121:7-11; IH-00058504 (4/13/2015 Memo from Weaver to Darden, Mazzarino, and Vaughn), appended hereto as **Ex. 11**. Defendant Darden, IH engineer T. Barker Dameron, and IH's intellectual property consultants at Deep River Ventures all reviewed the Validation Protocol prior to its being approved. *See id.*

16. The Validation test took place in Ferrara, Italy on April 30 and May 1, 2013. *See* Countercl. ¶ 56; **Composite Ex. 9** at 97:14-18.

17. The agreed-upon ERV certified the results of the Validation test on May 7, 2013. *See* Countercl. ¶ 56; IH-00015632 (Validation Results), appended hereto as **Ex. 12**.

18. Prior to this lawsuit, IH never requested a refund of the \$1.5 million purchase price. *See* **Composite Ex. 3** at 108:5-18, 109:24-110:2; Vaughn Depo. Tr., appended hereto as **Composite Ex. 13**, at 63:25-64:23.

19. After Plaintiffs filed the present lawsuit and over three years after the Validation Test took place, Defendants, for the first time, claimed that the data and results of the Validation Test had been manipulated, but provided no evidence in support thereof. *See* **Composite Ex. 3** at 152:21-154:25. IH's Engineer and purported expert witness, Joseph Murray testified that he had no evidence of any manipulation of data or nefarious activities. *See* Murray Tr., appended hereto as **Composite Ex. 14**, at 257:15-20; 340:4-12.

20. Section 3.2(b) of the License Agreement provides that upon successful Validation of the Plant, IH would pay Plaintiffs, through an escrow agent, \$10 million. *See* Countercl. ¶ 58; *see also* **Composite Ex. 9** at 97:19-22.

21. Section 3.2(b) of the License Agreement provides: "On the date the Escrow Agent pays the \$10,000,000 to Leonardo, the License will commence and Leonardo and Rossi will immediately transfer, and the Validation Agent (as defined in Schedule 3.2(b)) will deliver, to the Company all E-Cat IP." *See* **Ex. 4**.

22. Schedule 3.2(b) to the License Agreement defines the Validation Agent as "one or more United States patent attorneys ... and a nuclear engineer ... to be selected by Leonardo." *See* **Ex. 4**.

23. Leonardo, Rossi, and IPH agreed upon Ruggero Giunti, a nuclear engineer, as the Validation Agent, and the Validation Agent reviewed the transferred IP. *See Composite Ex. 13* at 142:2-5; Rossi_00008733 appended hereto as **Ex. 15**.

24. Plaintiffs transferred all E-Cat IP to Defendants. *See Ex. 1* ¶ 14; Countercl. ¶ 95.

25. The Validation Agent provided his written statement that Leonardo had delivered to IH all E-Cat IP. *See* IH-00044266 (IP Verification Notice), appended hereto as **Ex. 16**.

26. On June 9, 2013, after Validation, IH released, through an escrow agent, the \$10 million payment in satisfaction of section 3.2(b) of the License Agreement. *See* Countercl. ¶¶ 58, 94; **Composite Ex. 9** at 97:19-22; **Composite Ex. 3** at 142:12-16; **Composite Ex. 13** at 142:6-16; IPH Depo. Tr., appended hereto as **Composite Ex. 17**, at 102:24-103:22.

27. After Plaintiffs filed the present lawsuit, Defendants claimed, for the first time, that Plaintiffs breached the License Agreement by failing to provide all E-Cat IP. *See* Countercl. ¶¶ 9, 97. Defendants' only evidence to support this claim is their purported inability to replicate the technology. *See* IH's Responses and Objections to Rossi's Second Set of Interrogatories no. 6, appended hereto as **Ex. 18**.

B. The License Agreement Contains No Replication Requirement.

28. The term "replicate" does not appear, in any variation of the term, in the License Agreement or amendments thereto. *See Ex. 4* (License Agreement); **Ex. 5** (First Amendment); **Ex. 7** (Second Amendment); **Composite Ex. 13** at 149:9-12.

29. IH, through its representative Vaughn, testified that Defendants did not explicitly include a replication requirement in the License Agreement because "we were trying not change [Dr. Rossi's] language unless we felt absolutely we needed to." *See Composite Ex. 13* at 149:25-150:6.

30. Defendant IPH, the only entity that has the contractual right to the E-Cat IP, has no knowledge or evidence about its own claims regarding its purported inability to replicate. *See Composite Ex. 17* at 25:25-26:17, 41:11-42:7.

31. Defendants could not point to a single document in which they notified Plaintiffs of their alleged inability to replicate the technology. *See Composite Ex. 3* at 151:16-23; **Composite Ex. 13** at 150:9-151:15.

32. Defendants had reported, on numerous occasions, their ability to replicate. *See, e.g. Composite Ex. 3* at 163:23-164:25; IH-00095250-52 appended hereto as **Ex. 19**.

33. IH's corporate representative testified that it is possible that Defendants could not "replicate" any results because (a) Defendants are lying about their inability to replicate; (b) IH did not

have competent scientists or engineers working for it when it tried to replicate; (c) IH used faulty equipment in its attempts to replicate; or (d) IH used inferior materials for the catalyst. *See Composite Ex. 3* at 159:10-161:4.

C. The Guaranteed Performance Test (“GPT”).

34. Section 5 of the License Agreement originally made payment under the License Agreement contingent upon the following factors:

- a. the 1MW E-Cat unit operating at the same level (or better) at which Validation was achieved for a period of 350 days (even if not consecutive) within a 400 day period (defined as “the Guaranteed Performance” or “GPT”);
- b. the test was to commence immediately following the delivery of the 1MW Plant to Defendants;
- c. the ERV (as previously defined in Section 4 of the License Agreement)¹ will confirm in writing the Guaranteed Performance. The ERV was, pursuant to the agreement, the final and binding arbiter as to whether Guaranteed Performance was achieved.

35. Section 5 of the License Agreement, as amended by the Second Amendment, governs the GPT. The amended section states, in pertinent part:

Payment of the amount set forth in Section 3(c) above is contingent upon a six cylinder Hot Cat unit reasonably acceptable to the Company (the “Six Cylinder Unit”) operating at the same level (or better) at which Validation was achieved for a period of 350 days (even if not consecutive) within a 400 day period commencing on the date agreed to in writing between the parties (“Guaranteed Performance”). Each of Leonardo and Rossi will use their commercially reasonable best efforts to cause Guaranteed Performance to be achieved, including making repairs, adjustments and alterations to the Six Cylinder Unit as needed to achieve Guaranteed Performance. The ERV (or another party acceptable to the Company and Leonardo) will be engaged to confirm in writing the Guaranteed Performance. Guaranteed Performance will not be deemed achieved unless such written confirmation is received or waived by the Company.

36. Section 3.2(c) of the License Agreement provides: “Within five business days following 350 days of operation of the Plant during which the Guaranteed Performance has been achieved as required by Section 5 ... the Company will pay to Leonardo Eighty Nine Million Dollars (\$89,000,000)....” *See Ex. 4.*

37. The parties often referred to the GPT as the “350 day test” or the “400 day test.” *See Ex. 1 ¶ 5; Dameron Depo Tr. at 152:24-153:9, appended hereto as Ex. 20; Composite Ex. 13 at 144:8-15, 146:17-21.*

¹ Section 4 provides, in pertinent part: “The ERV will be chosen by mutual agreement between Leonardo and [Defendants] and Leonardo and [Defendants] shall bear the ERV’s costs fifty-fifty.”

38. The 1MW Plant was delivered to Defendants in August 2013. *See Composite Ex. 3* at 216:6-19; Countercl. ¶ 59; IH-00124716-20 (9/23/2013 email from Vaughn to Darden), appended hereto as **Ex. 21**.

39. In October 2013, Defendant IH, Rossi and Leonardo executed the Second Amendment to the License Agreement, which extended the time for the commencement of the GPT. *See Ex. 7*.

40. In addition to the Second Amendment, Defendants' internal and external communications reflected Defendants' agreement that the time for commencement of the GPT had been extended. *See* IH-00122484-508 (investment memoranda), IH-00107550-52 (9/11/2014, email from Vaughn to Mazzarino and Darden), IH-00106452-74 (IH Business Plan), appended hereto as **Composite Ex. 22**.

41. The parties had previously agreed that Fabio Penon was the ERV under the License Agreement. *See* IH-00099334-36, appended hereto as **Ex. 23; Composite Ex. 9** at 85:1-21; **Composite Ex. 3** at 128:2-11. The License Agreement did not provide for multiple ERVs. *See Ex. 4* (License Agreement). At no time prior to November of 2015 did any of the Defendants ever object to Mr. Penon as the ERV for the GPT, either in writing or orally. *See Ex. 1* ¶ 12; **Composite Ex. 3** at 125:1-127:1.

42. The parties agreed to substitute the 1MW Plant for the Six Cylinder Unit for purposes of the GPT. *See Composite Ex. 13* at 144:8-15; IH-00107550-52 (9/11/2014 email from Vaughn to Darden and Mazzarino) appended hereto as **Ex. 24; Ex. 1** ¶¶ 16-17.

43. In or around December 2014, in furtherance of the parties' agreement, IH shipped the 1MW Plant from North Carolina to Florida in preparation to begin the GPT. *See Composite Ex. 9* at 156:24-157:2; **Composite Ex. 3** at 214:21-215:1; 215:20-216:5; **Ex. 1** ¶ 16. IH's corporate representative, Defendant Vaughn, testified that, IH was still willing to pay for performance at this time. *See Composite Ex. 3* at 189:1-18.

44. In or around February 2015, the ERV submitted a protocol for the GPT ("GPT Protocol") to both Rossi and Darden that clearly identified the equipment to be tested as the 1MW Plant. *See* IH-00007018 (2/10/2015 email chain between Rossi, Penon, and Darden), appended hereto as **Ex. 25**. Defendant Darden provided recommendations and proposed modifications to the GPT Protocol, stating, "These are just suggestions – I am sure you can find the best way to do this." *See* IH-00019121-25 (2/18/15 e-mail from Darden to Penon, whereupon Darden responded: "Thanks do [*sic*] very much for your important work. This evaluation will have the eyes of the world on it once we release any information."), appended hereto as **Ex. 26**.

45. At no time prior to November of 2015 did any of the Defendants ever object to the GPT Protocol. *See* **Ex. 1** ¶ 21; **Composite Ex. 13** at 142:12-22; **Composite Ex. 9** at 212:4-6.

46. In fact, Defendants told their own purported witness, Mr. Rick Smith, that they agreed to the GPT Protocol. *See* Smith Depo. Tr. at 108:13-22, appended hereto as **Composite Ex. 27**.

47. Both before and after the commencement of the GPT, IH had reported that it had achieved positive COP in its tests of the E-Cat technology. *See* IH-00096250-52 (7/16/2013 email from Vaughn to Darden), IH-00060748-49 (12/2/2013 email chain between Vaughn and D. Weaver), appended hereto as **Composite Ex. 28**.

48. IH could not point to a single document wherein any Defendant informed Plaintiff that IH could not replicate the E-Cat Technology. *See* **Composite Ex. 3** 150:9-151:23.

49. The GPT began in February 2015 and concluded in February 2016. *See* **Composite Ex. 3** at 245:18-19; **Composite Ex. 13** at 211:17-213:11, 247:7-14; **Ex. 1** ¶ 19-20; IH-00019126-28 (“Tom reported that the 400-day test is about to commence.”), appended hereto as **Ex. 29**.

50. From the day the Guaranteed Performance Test began in February 2015, through the day it ended in February 2016, Dr. Rossi consistently apprised Defendants, in writing, of the status thereof. *See, e.g.*, IH-00006766-67 (6/17/2015 email chain between Rossi and J. Pike); IH-00007017 (2/18/2015 email chain from Rossi to Darden); IH-00011219 (8/30/2015 email chain between Rossi and D. Pike); IH-00011240 (2/21/2015 email from J. Pike to Rossi); IH-00011241 (2/2/2015 email from Rossi to J. Pike) ; IH-00011244 (11/1/2015 email from Darden to Rossi); IH-00011264 (3/25/2015 email from J. Pike to Rossi, Darden, Vaughn and Mazzarino); IH-00011347 (6/7/2015 email chain between Rossi, J. Pike, and D. Pike); IH-00011351 (6/17/2015 email chain between Joe Pike, Rossi, and Darden) , appended hereto as **Composite Ex. 30**. IH’s investors often responded to such updates with excitement. *See, e.g.*, IH-00011240 (2/21/2015 email from J. Pike to Rossi); IH-00011241 (2/2/2015 email from Rossi to J. Pike) ; IH-00011244 (11/1/2015 email from Darden to Rossi); IH-00011264 (3/25/2015 email from J. Pike to Rossi, Darden, Vaughn, and Mazzarino); IH-00011351(6/17/2015 email chain between J. Pike, Rossi, and Darden), appended hereto as **Composite Ex. 31**.

51. Rossi himself on most days spent over 16 hours per day for over the course of the 350+ day test in an extremely hot and uncomfortable working environment, performing the GPT. *See* **Ex. 1** ¶ 22-23.

52. The ERV submitted quarterly reports to Plaintiffs and Defendants during the course of the GPT. *See* IH-00006768-82 (5/28/2015 Penon report email to Darden and Rossi); IH-00006739-42

(10/22/2015 Penon report email to Darden and Rossi); IH-00006696-710 (1/12/2016 Penon report email to Darden and Rossi), appended hereto as **Composite Ex. 32**.

53. During the performance of the Guaranteed Performance Test, Defendant IH brought investors to tour the facility where Plaintiffs were performing the GPT. *See Composite Ex. 3* at 247:17-248:4; **Composite Ex. 9** at 225:14-226:9; IH Amended Responses to Rossi's First Set of Interrogatories, No. 5, appended hereto as **Ex. 33**.

54. IH encouraged Rossi to discuss the status of the GPT and the technology with their investors during these site visits. *See Ex. 1* ¶ 24.

55. In May of 2015, during the course of the GPT, Defendant IH closed on a \$50 million investment by non-party Woodford Investment Funds. *See Composite Ex. 3* at 170:9-14, 204:25-205:5; 206:6-207:6; IH-00021986 (4/21/2015 IH memo from Darden to P. Lamacraft); IH-00080193 (5/15/2015 email chain between Darden and J. Spear, S. Hartanto, P. Lamacraft, N. Woodford, and S. Saha); IH-00099714 (3/4/2016 email chain between P. Lamacraft and Vaughn); IH-00112920 (11/2/2015 IH Business Development memo), appended hereto as **Composite Ex. 34**.

56. Woodford Investment Funds later claimed that "Rossi's technology was a core element of [this] investment." *See* IH-00099714 (3/4/2016 email chain between P. Lamacraft and Vaughn), appended hereto as **Ex. 35**.

57. On or about March 29, 2016, the ERV confirmed the Guaranteed Performance in writing pursuant to section 5 of the License Agreement, which report showed that the 1MW Plant achieved a COP in excess of 6.0 for 350 out of 400 days. *See* IH-00006661-90 (3/29/2016 Penon final report email to Darden and Rossi), appended hereto as **Ex. 36**.

58. On March 29, 2016, Plaintiffs demanded payment of the \$89 million pursuant to the License Agreement; Defendants refused to pay the amount owed. *See* Countercl. ¶¶ 74, 80.

59. Defendant Darden claimed that, after the plant was installed in Florida, Rossi removed instrumentation and monitoring access, and therefore Darden knew at that time that the test would not be a "fully transparent bona fide test" and he realized that "something bad was going on down there." *See Composite Ex. 9* at 187:23-188:10.

60. At no time prior to November of 2015 did Defendants provide any notice, whether in writing or orally, that they believed that Leonardo had violated the License Agreement. *See Ex. 1* ¶ 26; **Composite Ex. 3** at 202:17-203:4, 186:9-17, 202:17-203:4, 203:22-204:9; **Composite Ex. 17** at 140:6-15.

61. As early as October 2013, Defendants did not have any intention of making their requisite \$89 million payment to Plaintiffs. *See, e.g., Composite Ex. 9* at 117-121.

62. At no time prior to November of 2015 did Defendants ever tell Rossi, in writing, that Defendants were unable to replicate the technology. *See Ex. 1* ¶ 15.

III. Defendant IPH's Counterclaim for Breach of Contract.

A. Section 16.4: Publicity; Confidentiality.

63. Section 16.4 of the License Agreement provides in pertinent part:

While this Agreement is in effect and after this Agreement terminates, each party hereto and its Affiliates shall keep confidential, and shall not disclose, the terms of this Agreement to any other Person without the prior consent of each other Party hereto ... During the term of this Agreement, each of Leonardo, Rossi, and AEG agrees to keep the E-Cat IP strictly confidential and not disclose any of the E-Cat IP to any other party...(Ex. 4.)

64. Defendant IPH testified that it did not know of any evidence or proof that IPH had in support of its claim for breach of Section 16.4 of the License Agreement. *See Composite Ex. 17* at 48:24-49:19.

65. Defendant Darden testified that he did not “know how much of a disclosure would be regarded as being a violation of the [License] [A]greement.” *See Composite Ex. 9* at 263:13-16.

66. Defendant IPH testified that it had no evidence regarding its allegation that Plaintiffs disclosed that the License Agreement required a Guaranteed Performance Test of the 1MW plant in which the plant would operate for 350 of 400 days. *See Composite Ex. 17* at 49:20-50:16, 52:3-20, 52:21-53:13, 53:14-54:6.

67. Defendant IPH testified that it had no evidence regarding its allegation that Plaintiffs provided E-Cat fuel samples to the Lugano scientists and scientist Norma Cook or whether any of the Defendants authorized Plaintiffs to make such disclosures. *See Composite Ex. 17* at 54:7-55:6; 61:25-62:23.

68. With respect to purported disclosures to Professor Cook, Defendant Darden testified that Dr. Rossi told Defendants that he intended to write a paper with Professor Cook, that Defendants reviewed and suggested edits to that paper prior to publication, and that Darden could not recall what particular purported disclosure of IP violated the License Agreement. *See Composite Ex. 9* at 274:20-25, 276:14-18; IH-00018838, appended hereto as **Ex. 37**. Darden likewise admitted that he had reviewed the paper's presentation and abstract prior to publication and told Dr. Rossi that they “appeared to be safe.” *See Composite Ex. 9* at 276:21-277:6; IH-00089665-66 (3/17/2015 email chain

between Vaughn and Rossi), appended hereto as **Ex. 38**. Darden’s IP attorneys likewise reviewed the presentation and abstract. *See Composite Ex. 9* at 277:1-17. Moreover, upon learning that the published paper had been translated to Chinese, Darden congratulated Dr. Rossi, noting: “This is very exciting to think about. Now 1.5 billion people can read your paper. What a great world it is.” *See id.* at 278:1-23; IH-00007010-11 (4/10/2015 email chain between Darden, Rossi, and D. Pike), appended hereto as **Ex. 39**.

69. With respect to purported disclosures to the Lugano scientists, Defendant Vaughn testified that Industrial Heat was “very interested in the results of the [Lugano test]” and “very eager to hear their analysis.” *See Composite Ex. 13* at 108:1-15. In addition, Defendant Darden testified that he actually did not “know whether [Dr. Rossi] disclosed the fuel because [Darden did not] know what fuel was used” for the Lugano test and didn’t even know whether Dr. Rossi had actually provided a fuel sample for the test. *See Composite Ex. 9* at 270:4-10, 12-14. In fact, Darden testified that he “prepared fuel before that test” and that the fuel the Lugano scientists used “may have been the fuel that [Industrial Heat] prepared.” *See id.* at 271:2-3, 21-22. Darden likewise testified that Defendants “knew that the test was going to happen,” and orally told Dr. Rossi not to disclose the fuel formula. *See id.* at 268:1-3, 11-16. In turn, Dr. Rossi informed him that he would take a fuel sample that would not disclose the protected IP. *See id.*

70. Defendant IPH testified that IPH did not know what specific confidential information Plaintiffs disclosed in violation of section 16.4, and further indicated that he did not know of any proof or facts that IPH has in support of this claim. *See Composite Ex. 17* at 62:24-63:23.

71. With respect to IPH’s claim that Plaintiffs made “additional E-Cat fuel sample disclosures, Defendants have identified no such disclosures. *See* Countercl. ¶¶ 104-07; **Composite Ex. 9** at 240:12-17.

72. With respect to IPH’s purported damages, IPH was unable to discern how IPH was harmed, instead nothing that breach would “lead to damages.” *See Composite Ex. 17* at 56:8-19. IPH testified further that IPH could not state how much IPH had been damaged. *See id.* at 61:15-23. Defendant Darden testified that “we have not made a computation” of damages and that “we don’t know yet what damages we might have.” *See Composite Ex. 9* at 240:5-11.

73. Defendant IH stated in its responses to Plaintiffs’ interrogatories that IH “is not claiming a specific damages amount with respect to” this claim. *See Ex. 18* at 10.

B. Section 10: Recordation of License.

74. Section 10 of the License Agreement provides:

Recordation of License. Upon the request of the Company, Leonardo and Rossi shall assign to the Company the Licensed Patents with respect to the Territory or, if so requested by the Company, record this Agreement . . . as permitted or required by the laws of countries in the Territory, and any recordation fees and related costs and expenses shall be paid by the Company.” (**Ex. 4.**)

75. IPH’s corporate representative was unable to offer any proof or evidence with respect to any purported violation of section 10 of the License Agreement. *See Composite Ex. 17* at 63:24-64:18. IPH did not know when Plaintiffs purportedly failed to assign any licensed patents. *See id.* at 73:7-16. Defendant Darden could not point to any specific patent applications that Plaintiffs had not assigned. *See Composite Ex. 9* at 240:18-241:3.

76. With respect to purported damages, IPH could not “assign a specific dollar amount to damages” purportedly resulting from IPH’s claim. *See Composite Ex. 17* at 66:10-19 (“We have not been able to assign a value to that specific allegation.”). Defendant Darden testified that no one from IPH or IH had made any attempt to calculate purported damages, also noting that damages are “contingent upon the technology working or the patent or IP being effective for someone else who makes the technology work. So if someone else is effective then the breach will have harmed us.” *See Composite Ex. 9* at 240:4-19.

77. Defendants testified that the E-Cat IP has no value. *See, e.g., Composite Ex. 3* at 145:25-146:13; *Composite Ex. 13* at 128:14-15; *Composite Ex. 9* at 99:9-17.

C. Section 7: Patent Prosecution and Maintenance.

78. Section 7.1 of the License Agreement provides:

For each patent application and patent under the Licensed Patents, Leonardo shall:

- (a) prepare, file and prosecute such patent application;
- (b) maintain such patent;
- (c) pay all fees and expenses associated with its activities pursuant to Section 7.1(a) and (b) above;
- (d) keep the Company currently informed of the filing and progress in all material aspects of the prosecution of such patent application, and the issuance of patents from any such patent application;
- (e) consult with the Company concerning any decisions which could affect the scope or enforcement of any issued claims or the potential abandonment of such patent application or patent; and
- (f) notify the Company in writing of any additions, deletions or changes in the status of such patent or patent application. (**Ex. 4.**)

79. Section 7.2 provides: “If Leonardo wishes to abandon any patent application or patent that is a Licensed Patent, it shall give the Company ninety (90) days prior written notice of the desired

abandonment. Leonardo shall not abandon any such Licensed Patent except upon the prior written consent of the Company.”

80. Section 16.1 of the License Agreement defines the “Licensed Patents” as:

- Italian patent granted for process and apparatus
- USA patent pending for process and apparatus
- Europe patent pending for process and apparatus
- USA patent pending for particulars and theory
- USA patent pending for control systems
- USA patent pending for additives and catalyzers in process and apparatus
- USA patent pending for Hot Cat
- USA patent pending for direct conversion of photons into electric energy
- USA patent pending for particulars of the reactor

81. Leonardo did not abandon any patent application or patent that is a Licensed Patent without the prior written consent of IPH. *See* **Ex. 1** ¶ 25.

82. IPH’s corporate representative was unable to offer any proof or evidence that Plaintiffs had violated section 7 of the License Agreement. *See* **Composite Ex. 17** at 66:20-67:13. IPH did not know when Plaintiffs had filed or abandoned patent applications without informing IPH. *See id.* at 73:17-74:5. Nor did IPH know which patent applications, or how many, Plaintiffs had purportedly filed. *Id.* at 67:14-68:2. Moreover, Defendant Darden testified that he did not know whether there were “applications that had been filed that we were not given,” and did not “know whether [Dr. Rossi had] filed any since ... [Dr. Rossi] went to Florida.” *See* **Composite Ex. 9** at 138:5-17. Darden stated: I’m not aware. I don’t remember any. None come to mind right now.” *Id.*

83. With respect to purported damages, IPH testified that it had not differentiated the damages alleged in the prior claim with this claim. *See* **Composite Ex. 17** at 70:25-71:5. Defendant Darden testified that neither IH nor IPH had computed damages related to any purported violation of section 7. *See* **Composite Ex. 9** at 7-24.

D. Section 13.3: Covenant Not to Compete.

84. Section 13.3 states in pertinent part:

For as long as the Company or any of its subsidiaries is engaged in any business related to the E-Cat Products and . . . Leonardo, Rossi or any Affiliate are performing services for the Company or such transferee [...]and for an additional period of two (2) years after the last of Leonardo, Rossi or such Affiliate shall have ceased to provide such services, none of Leonardo, Rossi or any of their Affiliates will [...] directly or indirectly own, manage, operate, join, or have a financial interest in, control or participate in the ownership, management, operation or control of, or be employed or engaged as an employee, agent or consultant, or in any other individual or representative

capacity whatsoever, or use or permit their names to be used in connection with, or be otherwise connected in any manner with any business or enterprise (a) engaged in the design, development, manufacture, distribution, lease, rental or sale of any E-Cat Products, or the provision of any services related thereto or (b) which is competitive with the E-Cat Products, unless Leonardo or such Affiliate shall have obtained the prior written consent of the Company or such subsidiary of the Company, as the case may be. (Ex. 4.)

85. IPH's corporate representative testified that IPH had no information with respect to any purported violations of section 13.3 of the License Agreement. *See Composite Ex. 17* at 72:5-23. IPH did not know when Plaintiffs had purportedly violated section 13.3 of the License Agreement. *Id.* at 72:24-73:2.

86. With respect to purported damages, IPH could not specify the damages that it had purportedly suffered as a result of any purported breach of section 13.3 of the License Agreement. *See Composite Ex. 17* at 73:3-6.

87. Plaintiffs have not engaged in prohibited competition in violation of the License Agreement. *See Ex. 1* ¶ 26.

E. Section 13.5: Tax Matters.

88. Section 13.5 of the License Agreement provides in pertinent part: "The Parties shall file all necessary documentation and returns with respect to any ... revenues derived by the Parties in respect of the E-Cat IP." *See Ex. 4.*

89. Neither IH nor IPH affirmatively assert that Plaintiffs have breached section 13.5 of the License Agreement. *See Countercl. ¶ 132; Composite Ex. 17* at 77:10-15.

90. Defendants are unable to provide any evidence in support of any purported breach of section 13.5. *See Composite Ex. 17* at 74:25-75:22; *Composite Ex. 13* at 258:21-259:3.

91. With respect to purported damages, Defendant Darden testified that he had not computed any actual damages related to a claim for 1purported breach of section 13.5 of the License Agreement, and stated that he did not believe that the other Defendants had done so either. *See Composite Ex. 9* at 246:12-247:2. IPH admits that it is not aware of any damage to IH as a result of its claim related to breach of section 13.5 of the License Agreement. *See Composite Ex. 17* at 77:16-21.

F. IPH's Purported Damages Related to Their Claims for Breach of Contract.

92. IPH paid IH \$460,000 in return for the assignment of all rights to the E-Cat IP under the License Agreement. *See Composite Ex. 17* at 122:3-13; *Ex. 8* ¶ 2.

93. IPH did not pay Plaintiffs the \$1.5 million purchase price for the 1MW Plant. *See Composite Ex. 17* at 57:23-24.

94. IPH did not make the \$10 million payment to Plaintiffs as contemplated in section 3.2(b) of the License Agreement. *See Countercl. ¶ 58.*

G. Defendants' FDUTPA Claims.

95. Defendants admit that the License Agreement did not require that a customer be involved with any testing of the E-Cat IP. *See Ex. 4; Composite Ex. 3* at 216:20-24.

96. IPH had no role in the decision to conduct the GPT outside of North Carolina. *See Countercl. ¶¶ 141, 145(a-b); Composite Ex. 17* at 79:1-80:14, 139:6-140:3, 174:1-15.

97. IPH had no role in the decision to engage a third-party customer. *See Countercl. ¶¶ 141, 145(a-b); Composite Ex. 17* at 79:1-80:14, 139:6-140:3, 174:1-15.

98. Defendants were admittedly only concerned with testing the E-Cat IP, and did not care about any purported customer. *See Composite Ex. 13* at 185:1-14; *Composite Ex. 3* at 191:21-24, 217:6-10. Defendants' goal was to accommodate Dr. Rossi and determine the state of the E-Cat IP. *See Composite Ex. 13* at 212:17-20. Defendants did no due diligence into the customer other than meet with its CEO, whom Defendants knew to be Dr. Rossi's real estate attorney. *See IH-00011867-70 (7/30/2014 email chain between Rossi, Vaughn, and Darden)*, appended hereto as **Ex. 40**.

99. IPH has no proof with respect to claim that Plaintiffs devised a scheme to conduct the GPT in Florida by creating a fake customer, thereby permitting Plaintiffs to avoid Defendants' oversight. *See Countercl. ¶¶ 68-69; 145(a-b); Composite Ex. 17* at 149:19-150:8.

100. IPH has no proof with respect to its claim that Plaintiffs deceived Defendants about third-party Defendants Henry Johnson, J.M. Products, or Jim Bass. *See Countercl. ¶¶ 69, 73, 77-78; Composite Ex. 17* at 150:20-151:6, 151:19-152:6, 152:20-153:8, 161:3-14; 164:5-14, 164:19-166:4, 171:6-19.

101. In March of 2015, well after the GPT had started, Darden admitted in an email to investors that: "We definitely are producing steam for a customer. My lack of clarity is just around, one, precisely how much, we cannot definitively represent this yet. And two, what is the nature of the customer. But these are picky nuances, not related to the core issue." *See IH-00080561-67 (3/23/2015 email chain between Darden and J. Pike)*, appended hereto as **Ex. 41**.

102. IPH has no information regarding its allegation that Plaintiffs and third-party defendants purportedly manipulated the operation and measurements of the Plant. *See Countercl. ¶¶ 142, 145(c);*

Composite Ex. 17 at 80:15-81:25, 128:15-129:18, 175:15-176:21. IH could point to no evidence in support of its claim that Plaintiffs had manipulated any data. *See Composite Ex. 3* at 154:2-20. IH's Engineer and purported expert witness, Joseph Murray testified that he had no evidence of any manipulation of data or nefarious activities. *See Murray Depo. Tr.* at 257:15-20, 340:4-12, appended hereto as **Composite Ex. 42**.

103. IPH has no proof with respect to its claim that Plaintiffs or third-party Defendants provided false information about the operation of the plant or steam being produced. *See Countercl. ¶¶ 76, 145(d); Composite Ex. 17* at 159:24-160:11.

104. IPH has no information with respect to its allegation that Plaintiffs or third-party defendants refused to provide information to Defendants. *See Countercl. ¶ 145(e); Composite Ex. 17* at 82:1-20.

105. IPH has no information with respect to its allegation that Plaintiffs blocked Defendants from obtaining information. *See Countercl. ¶ 145(f); Composite Ex. 17* at 167:19-168:9, 170:21-171:5.

106. IPH has no facts or information regarding its allegation that Plaintiffs or third-party defendants charged Defendants for services, expenses, or equipment. *See Countercl. ¶ 145(g); Composite Ex. 17* at 83:16-84:11.

107. IPH's has no information with respect to any element of its FDUTPA claim. *See Composite Ex. 17* at 172:22-173:7. IPH testified that it did not know how much IPH had suffered in damages stemming from its FDUTPA claim. *See id.* at 85:14-86:4. IPH also testified that it was not sure that IPH was even seeking any money damages related to the claim. *See id.* at 86:7-87:25.

108. IPH and IH readily admit that they did not pay the \$89 million sought by Plaintiffs. *See Countercl. ¶¶ 74, 80; Composite Ex. 17* at 108:23-25.

IV. Affirmative Defenses.

109. IPH cannot identify any evidence in support of its first affirmative defense for standing. *See Composite Ex. 17* at 112:12-113:1.

110. IPH cannot identify any evidence in support of its second affirmative defense for estoppel, waiver, and laches. *See Composite Ex. 17* at 113:15-114:5.

Memorandum of Law

I. Summary Judgment Standard.

Summary judgment is appropriate where there is no genuine issue of material fact and the movant is entitled to judgment as a matter of law, based on discovery and disclosure documents filed in the case, any affidavits, and the pleadings. *Broward Bulldog, Inc. v. United States DOJ*, No. 16-61289-CIV-Altonaga/O'Sullivan, 2017 U.S. Dist. LEXIS 26980, at *8-9 (S.D. Fla. Feb. 27, 2017) (citing Fed. R. Civ. P. 56(a)). A factual issue is material if it is “a legal element of the claim under the applicable substantive law which might affect the outcome of the case.” *In re Denture Cream Prods. Liab. Litig.*, No. 09-2051-MD-ALTONAGA, 2016 U.S. Dist. LEXIS 121038, at *6-8 (S.D. Fla. Aug. 31, 2016) (citing *Burgos v. Chertoff*, 274 F. App'x 839, 841 (11th Cir. 2008); *Allen v. Tyson Foods Inc.*, 121 F.3d 642, 646 (11th Cir. 1997)); *see also Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A factual issue is genuine “if the evidence could lead a reasonable jury to find for the non-moving party.” *Broward Bulldog*, 2017 U.S. Dist. LEXIS 26980, at *8-9; *see also Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986); *Anderson*, 477 U.S. at 248.

The party moving for summary judgment “bears the initial burden of identifying ‘those portions of the pleadings, depositions, answer to interrogatories, and admissions on file, together with the affidavits, if any, which it believes demonstrate the absence of a genuine issue of material fact.’” *Id.* (citing *Fitzpatrick v. City of Atlanta*, 2 F.3d 1112, 1115 (11th Cir. 1993) (in turn quoting *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986))). Federal Rule of Civil Procedure 56 “mandates the entry of summary judgment against a party who fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof of trial.” *In re Denture Cream*, 2016 U.S. Dist. LEXIS 121038, at *6-8 (citing *Jones v. UPS Ground Freight*, 683 F.3d 1283, 1292 (11th Cir. 2012) (in turn quoting *Celotex*, 477 U.S. at 322)).

II. As a Matter of Law, Plaintiff Leonardo is Entitled to Summary Judgment As to Count I of the Complaint.

To prove a claim for breach of contract, Plaintiffs must establish: “(1) the existence of a contract; (2) a material breach of that contract; and (3) damages resulting from the breach.” *Merle Wood & Assocs., Inc. v. Trinity Yachts, LLC*, 857 F. Supp. 2d 1294, 1301 (S.D. Fla. 2012) (quoting *Vega v. T-MobileUSA, Inc.*, 564 F.3d 1256, 1272 (11th Cir.2009)).

A. An Agreement Existed.**(i) The Initial Agreement.**

The parties entered into the License Agreement on or about October 26, 2012. *See* Statement of Facts (“SOF”) ¶ 5. Section 3.2(c) of the License Agreement provided that within 5 days following 350 days of operation of the Plant (defined as the 1MW E-Cat unit) which the Guaranteed Performance has been achieved as required by Section 5 below, Defendants will pay to Leonardo \$89,000,000. *See* SOF ¶ 36.

Section 5 of the License Agreement, as amended, makes payment contingent upon the following factors:

1. the 1MW E-Cat unit operating at the same level (or better) at which Validation was achieved for a period of 350 days (even if not consecutive) within a 400 day period (defined as “the Guaranteed Performance” or “GPT”);
2. the test was to commence immediately following the delivery of the 1MW Plant to Defendants;
3. the ERV (as previously defined in Section 4 of the License Agreement)² will confirm in writing the Guaranteed Performance. The ERV was, pursuant to the agreement, the final and binding arbiter as to whether Guaranteed Performance was achieved. *See* SOF ¶ 34.

The parties agreed that Fabio Penon would serve as the ERV. *See* SOF ¶ 14. On May 7, 2013, the ERV determined that, pursuant to Section 4 of the License Agreement, Validation had been deemed successful and achieved in that the 1MW Plant had produced energy greater than the energy consumed. *See* SOF ¶ 17.

Thereafter, Defendant IH caused \$10,000,000 to be paid to Leonardo as a result of the successful and achieved Validation. *See* Countercl. ¶ 58; *see also* *See* SOF ¶ 20.

(ii) Amendment as to the Time of Performance of the GPT.

The 1MW E-Cat unit was delivered to Defendants in August of 2013. *See* SOF ¶ 38; Countercl. ¶ 59. Defendant IH and Leonardo executed a Second Amendment to the License Agreement in October of 2013, which changed Section 5 as follows: (a) the time for commencement of the Guaranteed

² Section 4 provides, in pertinent part: “The ERV will be chosen by mutual agreement between Leonardo and [Defendants] and Leonardo and [Defendants] shall bear the ERV’s costs fifty-fifty.”

Performance Test to be “the date agreed to in writing between the Parties, and (b) the equipment to be tested to be the “Six Cylinder Unit.” *See* SOF ¶ 10.

At no time prior to November of 2015 did Defendants provide any notice, whether in writing or orally, that they believed that Leonardo had violated Section 5 of the License Agreement. *See* SOF ¶ 60. Defendants’ internal and external communications reflected Defendants’ agreement that the time for commencement of the GPT had been extended. *See* SOF ¶ 40. Further, IH’s corporate representative, Defendant Vaughn, testified that, notwithstanding that Leonardo delivered the plant late, IH was still willing to pay for performance. *See* SOF ¶ 43.

The parties subsequently agreed that the 400 day period (GPT) would commence in February 2015. *See* SOF ¶ 49 (“Tom [Darden]. . . reported that the 400-day test is about to commence.”).

(iii) Amendment as to the Equipment to be Tested for the GPT.

The parties agreed that the unit to be tested would be the 1MW E-Cat unit. *See* SOF ¶ 42. In or around December of 2014, in furtherance of their agreement, Defendant IH shipped the 1MW E-Cat unit from North Carolina to Doral, Florida. *See* SOF ¶ 43. In or around February 2015, Penon submitted a protocol for the GPT to both Rossi and Darden. *See* SOF ¶ 44. The protocol clearly identified the equipment to be tested to be the 1MW E-Cat. *Id.* Defendant Darden even provided suggested modifications to Penon’s protocol, but agreed it would left up to Penon. *See id.* (2/18/15 e-mail from Darden to Penon, whereupon Darden responded: “Thanks do [*sic*] very much for your important work. This evaluation will have the eyes of the world on it once we release any information.”). Defendants confirmed to their own purported expert witness, Mr. Rick Smith, that they agreed to Penon’s protocol. *See* SOF ¶ 46.

B. Leonardo Performed its Contractual Obligations/Met Conditions Precedent.

The ERV submitted quarterly reports to both Defendants and Plaintiffs. *See* SOF ¶ 52. At no time prior to November of 2015 did any of the Defendants ever object to Penon as the ERV or the protocol for the GPT. *See* SOF ¶¶ 41, 45. To the contrary, during the performance of the Guaranteed Performance Test, Defendant IH brought investors to tour the facility where Plaintiffs were performing the GPT, and to ask questions of Rossi. *See* SOF ¶ 53. In fact, IH closed on a \$50mm fund-raise in May of 2015. *See* SOF ¶ 55. On or about March 29, 2016, the ERV submitted his Final Report, showing that the plant achieved a COP in excess of 6.0 for the required period of time. *See* SOF ¶ 57.

C. Defendants IH and IPH are in Breach of Contract.

It is undisputed that, Leonardo demanded payment of the \$89mm as set forth in the License Agreement. *See* Countercl. ¶ 74. It is likewise undisputed that Defendants IH and IPH refused to make that payment. *See id.* ¶ 80.

D. Plaintiff has been damaged.

Pursuant to the unambiguous language in the License Agreement, Plaintiff Leonardo is entitled to payment of \$89,000,000.00. *See* SOF ¶ 36.

E. Legal analysis.

As set forth above, Plaintiffs are able to establish, via undisputed facts, all of the necessary elements to prove their claim for breach of contract. Assuming, *arguendo*, that no writing exists modifying the timing of the GPT and equipment to be used therefore, the subsequent course of dealing between the parties establishes a waiver. Florida law holds that a “subsequent dealing between the parties may establish a waiver of a requirement that modifications must be made in writing,” irrespective of any anti-waiver clause present in the underlying agreement. *Dioguardi v. Giroski, LLC*, Case No. 12-23354-CIV-MARTINEZ-MCALILEY, 2013 U.S. Dist. LEXIS 192319 (S.D. Fla. Mar. 20, 2013) (quoting *In re Electric Machinery Enters., Inc.*, 416 B.R. 801, 886 (M.D. Fla. 2009)). That holding is consistent with basic contract principles, which state that “[u]nder no circumstances may the non-breaching party stop performance *and* continue to take advantage of the contract’s benefits,” *Burger King Corp. v. Hinton, Inc.*, 203 F. Supp. 2d 1357, 1365 (S.D. Fla. 2002), and that an “implied term of a contract, recognized by Florida law, is the implied covenant of good faith and commercial reasonableness,” *First Nationwide Bank v. Florida Software Servs., Inc.*, 770 F. Supp. 1537 (M.D. Fla. 1991). In other words, the Defendants are prohibited from continuing to deal with Plaintiffs, allowing Plaintiffs to continue performing their obligations pursuant to the License Agreement, and taking advantage of the benefits provided by Plaintiffs, while simultaneously stopping their own performance. Defendants have indisputably done just that – to the tune of receiving funding in excess of \$50 million. *See* SOF ¶ 55.

It is undisputed that Defendants continued to deal with Plaintiffs, and allowed Plaintiffs to continue performing their contractual obligations subsequent to the agreed-upon modifications as to the time of the commencement of the Guaranteed Performance Test and the equipment to be tested. It is undisputed that at the relevant times herein, IH owned and controlled the 1MW E-Cat Plant, and allowed for its shipment. *See* SOF ¶ 43. From the day the Guaranteed Performance Test began in

February 2015, through the day it ended in February 2016, Dr. Rossi consistently apprised Defendants, in writing, of the status thereof. *See* SOF ¶ 50. IH's investors often responded to such updates with excitement. *Id.* Rossi himself spent over 16 hours per day for over 350 days in an extremely hot and uncomfortable working environment, performing the contractual test. *See* SOF ¶ 51.

The Defendants, on the other hand, are unable to cite to even a single response wherein they disputed that the Guaranteed Performance Test was, in fact, taking place. Instead, IH admitted that it never told Rossi that the time for the Guaranteed Performance test had come and gone, or that Plaintiffs had somehow breached the License Agreement. *See* SOF ¶ 60. The ERV, Fabio Penon, provided similar updates to Defendants regarding the Guaranteed Performance Test's protocol. *See* SOF ¶ 52. Again, Defendants cannot point to a writing in which they object to, question, refuse, refute, or otherwise dispute the same.

In contrast, throughout Plaintiffs' performance of the Guaranteed Performance Test, the Defendants solicited and received in excess of \$50 million in investments premised upon such work. *See* SOF ¶ 55. The biggest investor even stated that "Rossi's technology was a core element of the initial investment." *See* SOF ¶ 56.

Notwithstanding their blatant use of Plaintiffs' technology to raise \$50 million plus, Defendants did not have any intention of making their requisite \$89 million payment to Plaintiffs as early as October 2013. *See* SOF ¶ 61. Yet, again, Defendants are unable to cite to even a single e-mail, writing, and/or other document in which they advise Plaintiffs of the same. Defendants' conduct of continued dealing with the Plaintiffs and using Plaintiffs' work to solicit millions of dollars in investments, while at the same time knowing that they never intended to perform their own obligation, is in bad faith and commercially unreasonable pursuant to Florida law. There are accordingly no genuine issues of material fact that Defendants waived any relevant provisions of the License Agreement with respect to the Guaranteed Performance Test's timing and equipment.

III. As a Matter of Law, Plaintiffs are entitled to Summary Judgment as to Defendants' Breach of Contract Claims.

To prove a claim for breach of contract, Defendants must establish: "(1) the existence of a contract; (2) a material breach of that contract; and (3) damages resulting from the breach." *Merle Wood & Assocs., Inc. v. Trinity Yachts, LLC*, 857 F. Supp. 2d 1294, 1301 (S.D. Fla. 2012) (quoting *Vega v. T-MobileUSA, Inc.*, 564 F.3d 1256, 1272 (11th Cir.2009)).

“The construction of a contract is a question of law for the courts to determine where the language used in the written contract is clear, unambiguous, and susceptible of only one interpretation.” *Esys Latin Am., Inc. v. Intel Corp.*, 925 F. Supp. 2d 1306, 1308 (S.D. Fla. 2013) (quoting *Gray v. D & J Indus., Inc.*, 875 So. 2d 683, 683 (Fla. 3d DCA 2004)). In interpreting a contract, the Court construes the contract in a way that is “reasonable, practical, sensible, and just.” *Id.* (citing *State Farm Mut. Auto Ins. Co. v. Mashburn*, 15 So. 3d 701, 704 (Fla. 1st DCA 2009)). The Court “interpret[s] the agreement as a whole, giving effect to all of its provisions.” *Megdal Assocs., LLC v. La-Z-Boy Inc.*, No. 14-81476-CIV, 2016 U.S. Dist. LEXIS 119168, at *7 (S.D. Fla. Feb. 19, 2016) (citing *Ospina-Baraya v. Heiligers*, 909 So. 2d 465, 472 (Fla. 4th DCA 2005)). The “‘plain language of the contract’ is the ‘best evidence’ of the parties’ intent, and the parties’ intent controls the contract’s construction and interpretation.” *Id.* (citing *Thomas v. Vision I Homeowners Ass’n*, 981 So. 2d 1, 2 (Fla. 4th DCA 2007)).

A. Counterclaim Count I: Breach of Contract: Validation & Disclosure of E-Cat IP.

Defendants’ claim that Plaintiffs breached section 3.2(b) of the License Agreement fails as a matter of law, and the undisputed material facts entitle Plaintiffs to summary judgment against Defendants IH and IPH as to this claim. *See* Countercl. ¶¶ 92-98. Defendants ignore the terms of License Agreement, and write in new terms that suit their legal theories.

(i) Summary judgment against Defendant IH is proper.

Defendant IH’s standing to pursue this claim is limited to its ownership of the 1MW Plant. IH executed the License Agreement with Plaintiffs. *See* SOF ¶ 5. On April 29, 2013, IH assigned its rights under the License Agreement to IPH. *See* SOF ¶ 9; Countercl. ¶ 47. On or about September 12, 2014, IH and IPH entered into an amended agreement intended to clarify the Assignment and Assumption of License Agreement. *See* SOF ¶¶ 11-12; Countercl. ¶ 47. The amended agreement clarified that the 1MW Plant was the only interest that in the License Agreement that would remain IH’s property. *See id.*

a. IH purchased the 1MW Plant.

Section 3.2(a) of the License Agreement governs the purchase of the 1MW Plant for \$1.5 million. That section, as amended by the First Amendment, states in pertinent part:

Upon execution of this Agreement, the Company will pay to Leonardo One Million Five Hundred Thousand Dollars (\$1,500,000) which amount shall be deemed to include full payment for the Plant. In the event the Plant is not delivered or Validation is not achieved within the time period set forth in Section 4, the full \$1,500,000 will be

refunded to the Company within two business days of its request. *A refund of the \$1,500,000 will not be provided for any other reason and no other refund will be provided for any reason.* ... The Plant will be available for Validation and delivery on April 30, 2013.... (emphasis added) (See SOF ¶ 8.)

On or about October 26, 2012, pursuant to section 3.2(a) of the License Agreement, IH tendered the \$1.5 million purchase price as payment for the 1MW Plant. See Countercl. ¶ 4; See SOF ¶ 12. On April 30, 2013, Plaintiffs delivered the Plant to Ferrara, Italy for Validation. See Countercl. ¶¶ 50, 56. Prior to this lawsuit, IH never requested a refund of the \$1.5 million purchase price. See SOF ¶ 18.

Hence, as a matter of law and pursuant to section 3.2(a) of the License Agreement, IH would only be eligible for a refund of the \$1.5 million purchase price if Validation was not achieved. Yet as noted, *infra*, Validation was achieved and IH was thus not eligible for a refund of the Plant's purchase price. See SOF ¶ 17.

b. Validation pursuant to Section 4 of the License Agreement.

The First Amendment, Section 4 states, in pertinent part:

The Validation will be made in the factory of Leonardo in Ferrara, Italy on April 30th and May 1, 2013.... "Validation" will be deemed successful and achieved when the expert responsible for validation ("ERV") certifies that the performance standards for the Plant set forth in Exhibit A to [the First Amendment] have been met. ... The ERV will be chosen by mutual agreement between Leonardo and the Company.... (See SOF ¶ 13.)

Section 3.2(b) of the License Agreement provides that upon successful Validation of the Plant, IH would pay Plaintiffs, through an escrow agent, \$10 million in exchange for a territorial license of the E-Cat IP and delivery by Plaintiffs to IH of all E-Cat IP. See SOF ¶¶ 5, 20. Neither IH's independent ability to replicate the technology nor Plaintiffs' transfer of all E-Cat IP is a condition precedent to Validation or Plaintiffs' entitlement to the \$1.5 million payment. See SOF ¶¶ 28-29.

The parties mutually agreed to designate Fabio Penon as the ERV for the Validation. See SOF ¶ 14. Plaintiffs and Defendants, including Defendant Darden and IH engineer T. Barker Dameron, and IH's IP consultants at Deep River Ventures mutually agreed to the Validation Protocol contained in Exhibit A to the First Amendment to the License Agreement. See SOF ¶ 15. The Validation test took place in Ferrara, Italy on April 30 and May 1, 2013. See Countercl. ¶ 56; See SOF ¶ 16. The mutually agreed-upon ERV certified that Validation had occurred, confirmed that all the E-Cat IP had been transferred to IPH. See SOF ¶¶ 17, 25. Admitting that Validation was successful, on June 9, 2013, IH

released, through an escrow agent, the \$10 million payment in satisfaction of section 3.2(b) of the License Agreement. *See* Countercl. ¶¶ 58, 94; *See* SOF ¶ 26.

Given that the 1MW Plant is IH's only interest in the License Agreement, and that (a) Plaintiffs timely delivered the Plant to Ferrara Italy for Validation and (b) Validation was achieved, IH is precluded by the very terms of the License Agreement from recovering the \$1.5 million purchase price. *See* License Agreement, § 3.2(a) ("A refund of the \$1,500,000 will not be provided for any other reason and no other refund will be provided for any reason."). As such, Plaintiffs are entitled to summary judgment with respect to IH's portion of this claim.

(ii) Summary Judgment against Defendant IPH is proper.

Defendants³ purport to support their "conclusions"⁴ that Plaintiffs either did not deliver all E-Cat IP or did not achieve Validation (or both) by claiming that Defendants "have been unable, using the transferred E-Cat IP, to replicate the [Validation test] results" or "otherwise generate measurable excess energy." *See* Countercl. ¶ 95. Preliminarily, delivery of the E-Cat IP and Validation are separate matters governed by separate sections of the License Agreement and must be addressed accordingly. Significantly, the License Agreement does not address Defendants' independent ability to replicate any results.

a. Validation pursuant to the License Agreement was achieved.

As noted in section A(i)(a), *supra*, Validation is governed by section 4 of the License Agreement as amended by the First Amendment. Mr. Penon was the mutually agreed-upon ERV, the Validation occurred as required under the amended License Agreement, the results were certified, and Defendants paid \$10 million as a result of Validation. *See* SOF ¶¶ 14, 16, 26; Countercl. ¶¶ 56, 58, 94. The License Agreement does not provide that the results reported by the ERV were somehow challengeable, and the Court may not read into the License Agreement any such terms. Even if the

³ Plaintiffs' reference to Defendants in the plural is the result of Defendants' failure to delineate between the portions of Count I that apply to each Defendant individually and in no way is intended to accept that Defendant IH has any interest in the License Agreement except with respect to ownership of the 1MW Plant. As noted *supra*, the Amended and Restated Assignment granted IPH all interests in the License Agreement except with respect to ownership of the 1MW Plant. *See* SOF ¶ 8.

⁴ IH's corporate representative testified that, despite what Defendants claim in the Counterclaim, there are additional possible conclusions that one may draw with respect to Defendants' purported inability to replicate, including, *inter alia*, the conclusions that: (a) Defendants are lying about their inability to replicate; (b) IH did not have competent scientists or engineers working for it when it tried to replicate; (c) IH used faulty equipment in its attempts to replicate; or (d) IH used inferior materials for the catalyst. *See* SOF ¶ 33.

results reported by the ERV were challengeable, Defendants have presented no evidence in support of any such challenge.

As a matter of law, Plaintiffs are entitled to summary judgment against IPH with respect to this element of its claim.

b. Transfer of the E-Cat IP was achieved.

Section 3.2(b) of the License Agreement provides: “On the date the Escrow Agent pays the \$10,000,000 to Leonardo, the License will commence and Leonardo and Rossi will immediately transfer, and the Validation Agent (as defined in Schedule 3.2(b)) will deliver, to the Company all E-Cat IP.” *See* SOF ¶ 21. Schedule 3.2(b) to the License Agreement defines the Validation Agent as “one or more United States patent attorneys ... and a nuclear engineer ... to be selected by Leonardo.” *See* SOF ¶ 22.

First, Defendant IPH could not testify at deposition to any facts in support of the claim that Plaintiffs did not transfer the E-Cat IP; in fact, IPH’s corporate representative had no knowledge with respect to its own claims in this count. *See, e.g., See* SOF ¶ 30. Second, the only information concerning the purportedly missing IP that any Defendant has given is contained in IH’s interrogatory responses in which they claim that “the specific E-Cat IP Industrial Heat claims Leonardo and Rossi did not deliver, is the E-Cat IP necessary to replicate the results Rossi and Leonardo claimed from the E-Cat technology, assuming the E-Cat technology in facts works as Rossi and Leonardo claim.” *See* SOF ¶ 27. There is no requirement under the License Agreement that Defendants replicate anything.

c. There is no “Replication” requirement in the License Agreement.

The plain, clear, and unambiguous language in the contract makes no mention whatsoever of the term “replication” or any variation thereof. *See Megdal Assocs.*, 2016 U.S. Dist. LEXIS 119168, at *7. There is no provision in the License Agreement that conditions performance by any party upon Defendants’ independent ability to replicate any test result or generate any energy whatsoever.

Defendant IPH’s corporate representative testified that IPH had no knowledge about its own claims regarding its purported inability to replicate. *See* SOF ¶ 30. When asked where in the License Agreement the term “replicate” appears, Defendant Vaughn concurred that it did not. *See* SOF ¶ 28. When asked why the term “replicate” did not appear anywhere in the License Agreement, Defendant Vaughn testified that “we were trying not change [Dr. Rossi’s] language unless we felt absolutely we needed to.” *See* SOF ¶ 29. Significantly, despite working with Plaintiffs for over three years,

Defendants could not point to a single document in which they notified Plaintiffs of their alleged inability to replicate the technology. *See* SOF ¶ 31. Perhaps this is because Defendants had reported, on numerous occasions, their ability to replicate. *See* SOF ¶ 32.

It is a “commonsense principal of [contract] interpretation that ‘the absence of a provision from a contract is evidence of an intention to exclude it rather than an intention to include it.’” *Megdal Assocs.*, 2016 U.S. Dist. LEXIS 119168, at *11 (quoting *Azalea Park Util., Inc. v Knox-Fla. Dev. Corp.*, 127 So. 2d 121, 123 (Fla. 2d DCA 1961)). To the extent that Count 1 is predicated on their inability to accomplish goals not contained in the parties’ contract, Defendants’ claim fails as a matter of law.

d. IPH Suffered No Damages.

IPH’s corporate representative testified that IPH is only seeking those damages “incurred by IPH.” *See* SOF ¶ 91. IPH did not pay Plaintiffs the \$1.5 million purchase price for the 1MW Plant. *See* SOF ¶ 93. IH – not IPH – made the \$10 million payment to Plaintiffs as contemplated in section 3.2(b) of the License Agreement. *See* Countercl. ¶ 58. IPH purchased the rights to the License Agreement for \$460,000. *See* SOF ¶ 92. To the extent that IPH claims it is entitled to any damages under sections 3.2(a) or 3.2(b) of the License Agreement, those damages may not, as a matter of law, exceed the \$460,000 that it purportedly paid IH in the Amended and Restated Agreement.

B. Counterclaim Count II: Breach of Confidentiality.

Defendant IPH – the only party that brought this claim – claimed through its corporate representative that it did not know of any evidence or proof that IPH had in support of this claim for breach of Section 16.4 of the License Agreement. *See* SOF ¶ 64. Defendant Darden testified that he did not “know how much of a disclosure would be regarded as being a violation of the [License] [A]greement.” *See* SOF ¶ 65.

The confidentiality provision in section 16.4 of the License Agreement provides in pertinent part:

While this Agreement is in effect and after this Agreement terminates, each party hereto and its Affiliates shall keep confidential, and shall not disclose, the terms of this Agreement to any other Person without the prior consent of each other Party hereto ... During the term of this Agreement, each of Leonardo, Rossi, and AEG agrees to keep the E-Cat IP strictly confidential and not disclose any of the E-Cat IP to any other party...

Defendant IPH claims that Plaintiffs violated these terms by: (a) disclosing that the License Agreement required a “Guaranteed Performance Test” of the 1MW plant in which the plant would

operate for 350 of 400 days; (b) filing an unsealed copy of the License Agreement as an exhibit to the Complaint; (c) providing E-Cat fuel samples to the Lugano scientists and scientist Norma Cook; (d) commenting on E-Cat fuel samples on the Internet; and (e) on Defendants' "information and belief," making additional E-Cat fuel sample disclosures. *See* Countercl. ¶¶. 104-07.

With respect to (a), *supra*, IPH's corporate representative testified that IPH had no evidence in support of this claim. *See* SOF ¶ 66.

With respect to (b), *supra*, such disclosure took place after Defendant IPH had already breached the License Agreement by refusing to tender full payment.

With respect to purported disclosures to Professor Cook, IPH's corporate representative testified that he did not know of any evidence or proof that IPH has in support of this claim and that he did not know whether any of the Defendants authorized Plaintiffs to make such disclosures. *See* SOF ¶ 67. Defendant Darden testified that Dr. Rossi told Defendants that he intended to write a paper with Professor Cook, that Defendants reviewed and suggested edits to that paper prior to publication, and that Darden could not recall what particular purported disclosure of IP violated the License Agreement. *See* SOF ¶ 68. Darden likewise admitted that he had reviewed the paper's presentation and abstract prior to publication and told Dr. Rossi that they "appeared to be safe." *See id.* Darden's IP attorneys likewise reviewed the presentation and abstract. *See id.* Moreover, upon learning that the published paper had been translated to Chinese, Darden congratulated Dr. Rossi, noting: "This is very exciting to think about. Now 1.5 billion people can read your paper. What a great world it is." *See id.*

With respect to purported disclosures to the Lugano scientists, IPH's corporate representative testified that he did not know of any evidence or proof that IPH has in support of this claim and that he did not know whether any of the Defendants authorized Plaintiffs to make such disclosures. *See* SOF ¶ 67. However, Defendant Vaughn testified that Industrial Heat was "very interested in the results of the [Lugano test]" and "very eager to hear their analysis." *See* SOF ¶ 69. In addition, Defendant Darden testified that he actually didn't "know whether [Dr. Rossi] disclosed the fuel because [Darden didn't] know what fuel was used" for the Lugano test and didn't even know whether Dr. Rossi had actually provided a fuel sample for the test. *See id.* In fact, Darden testified that he "prepared fuel before that test" and that the fuel the Lugano scientists used "may have been the fuel that [Industrial Heat] prepared." *See id.* Darden likewise testified that Defendants "knew that the test was going to happen," orally told Dr. Rossi not to disclose the fuel formula, and that Dr. Rossi informed him that he would take a fuel sample that would not disclose the protected IP. *See id.*

With respect to (d), *supra*, IPH's corporate representative testified that he did not know what specific confidential information Plaintiffs disclosed in violation of section 16.4, and further indicated that he did not know of any proof or facts that IPH has in support of this claim. *See* SOF ¶ 70.

With respect to (e), *supra*, despite Defendants' claim that they have information and belief that Plaintiffs made other disclosures, they were unable to identify any such disclosures. *See* SOF ¶ 71.

With respect to IPH's purportedly related damages, IPH claims that "[t]o the extent that the E-Cat IP has commercial value," IPH's ability to capture that value is harmed, and that it is likewise harmed by the ability of others to use the "License Agreement's terms in negotiations over similar agreements with IPH or its affiliates." *See* Countercl. ¶¶ 108-09.

The IH corporate representative testified that the License Agreement and E-Cat IP have no value. *See* SOF ¶ 77. Defendant Vaughn testified that the technology does not work. *See id.* Defendant Darden testified that he does not know whether the E-Cat IP has any value. *See id.*

Moreover, when asked how IPH had been harmed by the purported breach, IPH's corporate representative was unable to say, instead noting that the breach would "lead to damages." *See* SOF ¶ 72. When pressed on IPH's purported damages, IPH's corporate representative testified that he could not state how much IPH had been damaged. *See id.* Moreover, Darden testified that "we have not made a computation" of damages and that "we don't know yet what damages we might have." *See id.* Notably, Defendant IH expressly stated in response to interrogatories that it "is not claiming a specific damages amount with respect to" this claim. *See* SOF ¶ 73.

C. Counterclaim Count II: Breach re Failure to Assign Licensed Patents.

Defendant IPH claims that Plaintiffs breached section 10 of the License Agreement by refusing to assign Licensed Patents to IPH fails as a matter of law because Defendants have provided no evidence in support, and, even if it did, IPH suffered no damage as a result of the purported breach. *See, e.g.*, Countercl. ¶¶ 110-13.

Section 10 of the License Agreement provides:

Recordation of License. Upon the request of the Company, Leonardo and Rossi shall assign to the Company the Licensed Patents with respect to the Territory or, if so requested by the Company, record this Agreement . . . as permitted or required by the laws of countries in the Territory, and any recordation fees and related costs and expenses shall be paid by the Company."

The License Agreement itself is a binding contract that grants to Defendants "the exclusive right and license under the Patents and other E-Cat IP to develop, manufacture, make, have made, use,

have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all the products deriving from the E-Cat IP in the Territory.” License Agreement § 1 (emphasis added). Such an exclusive license “is equivalent to an assignment.” *See Hako-Med USA, Inc. v. Axiom Worldwide, Inc.*, No. 8:06-CV-1790-T-27EAJ, 2006 U.S. Dist. LEXIS 94239, at *9 (M.D. Fla. Nov. 15, 2006) (citing *Prima Tek II, LLC v. A-Roo Co.*, 222 F.3d 1372, 1378 (Fed. Cir. 2000)). As such, the License Agreement itself confers to IPH the precise “control over the Licensed Patents” that Defendants erroneously claim they do not possess resulting in damage. *See* Countercl. ¶ 113. Moreover, to the extent that Defendants wished to “control” the Licensed Patents through recordation of the License Agreement, and thereby avoid any potential damage, it is indisputable that there is nothing in the Agreement that prevents them from so doing.

At IPH’s corporate representative deposition, IPH had no proof or evidence in support of its claim. *See* SOF ¶ 75. IPH did not know when Plaintiffs purportedly failed to assign any licensed patents. *See id.* Defendant Darden could not point to any specific patent applications that Plaintiffs had not assigned. *See id.*

With respect to damages, IPH could not “assign a specific dollar amount to damages” purportedly resulting from IPH’s claim. *See* SOF ¶ 76 (“We have not been able to assign a value to that specific allegation.”). Defendant Darden testified that no one from IPH or IH had made any attempt to calculate purported damages, also noting that damages are “contingent upon the technology working or the patent or IP being effective for someone else who makes the technology work. So if someone else is effective then the breach will have harmed us.” *See id.* As noted, *supra*, Defendants believe that the E-Cat IP has no value. *See* SOF ¶ 77.

IPH’s failure to provide any evidence in support of its claim, Defendants’ failure to identify any cognizable damage as a result of Plaintiffs’ purported breach, and Defendants’ admission that damages had not even occurred are all fatal to IPH’s claim for breach of section 10 of the License Agreement. As such, summary judgment is appropriate with respect to this claim.

D. Counterclaim Count II: Breach re Failure to Inform/Consult on Patent Applications.

Defendant IPH claims that Plaintiffs failed to “inform[] and consult[] with IPH regarding patent prosecution and maintenance of the E-Cat IP” in violation of section 7 of the License Agreement is insufficient as a matter of law. *See* Countercl. ¶¶ 114-19.

IPH offered no evidence or proof in support of its claims. *See* SOF ¶ 82. IPH did not know when Plaintiffs had filed or abandoned patent applications without informing IPH. *See id.* Nor did

IPH know which patent applications, or how many, Plaintiffs had purportedly filed. *Id.* Moreover, Defendant Darden testified that he did not know whether there were “applications that had been filed that we were not given,” and did not “know whether [Dr. Rossi had] filed any since ... [Dr. Rossi] went to Florida.” *See id.* Darden stated: I’m not aware. I don’t remember any. None come to mind right now.” *See id.*

With respect to IPH’s purported damages related to this claim, IPH testified that it had not differentiated the damages alleged in the prior claim with this claim. *See* SOF ¶ 83. Defendant Darden testified that neither IH nor IPH had computed damages related to this claim. *See id.*

In contrast, Plaintiff Rossi swears in his affidavit that he never failed to inform and consult with IPH regarding patent prosecution and maintenance of the E-Cat IP. *See* SOF ¶ 81. IPH has no evidence to contradict this evidence, and therefore summary judgement is proper.

E. Counterclaim Count II: Breach of Covenant Not to Compete.

Defendant IPH’s claim that Plaintiffs have engaged in conduct “in direct conflict with [section 13.3 of] the License Agreement” fails because IPH has no evidence in support. *See* Countercl. ¶¶ 120-24.

In fact, IPH’s corporate representative testified that it had no information with respect to this claim. *See* SOF ¶ 85. IPH did not know when Plaintiffs had purportedly violated section 13.3 of the License Agreement. *Id.* Nor could IPH specify the damages that it had purportedly suffered as a result of the purported breach. *See* SOF ¶ 86. Defendants can point to no such damages because Dr. Rossi has not engaged in prohibited competition in violation of the License Agreement. *See* SOF ¶ 87.

To the extent that Defendants claim that Plaintiffs’ legitimate business activities outside of the territory defined in section 2 of the License Agreement⁵ violates the non-compete provision in section 13.3, such an argument fails as a matter of law. Reading the non-compete provision in light of the provisions of the contract as a whole, it is clear that section 13.3 is limited to competitive acts in the territory. *See Megdal Assocs.*, 2016 U.S. Dist. LEXIS 119168, at *7.

F. Counterclaim Count II: Breach re Failure to Pay Taxes.

Defendant IPH admittedly does not “assert this breach [of contract for failure to pay taxes] as a basis to recover damages from Leonardo and Rossi presently, but reserve the right to assert this claim in the event a federal tax lien is issued affecting Industrial Heat and/or IPH’s assets or rights under the

⁵ The territories include North America, Central America and the Caribbean, South America, China, Russia, Saudi Arabia, and the Arabian Emirates. *See* License Agreement § 2.

License Agreement.” *See* Countercl. ¶ 132. Implicit in IPH’s purported reservation of rights is an acknowledgement that it has suffered no injury or damage.

Even if, *arguendo*, Defendants’ claim were ripe, Defendants would be unable to adequately prove the damages element of any such claim. As a matter of law, any lien that the federal government might issue would attach to the property that Plaintiff owned at the time of issuance and to any property obtained thereafter, and would not extend beyond Plaintiffs’ property interests. *See United States v. Barnes*, 509 F. App’x 837, 840 (11th Cir. 2012); *United States v. Rodgers*, 461 U.S. 677, 690–91 (1982). IPH is accordingly precluded this claim, and Plaintiffs are entitled to judgment in their favor as a matter of law.

In fact, IPH admits that there is no “claim resulting from nonpayment of tax.” *See* SOF ¶ 89–90. IPH admits further that it is not aware of any damage to IH as a result of its claim related to this purported breach. *See* SOF ¶ 91. Defendant Darden also testified that he had not computed any actual damages related to this claim, and stated that he did not believe that the other Defendants had done so either. *Id.*

Plaintiffs are entitled to summary judgment with respect to this claim.

G. Counterclaim Count IV: FDUTPA.

To succeed on a claim for damages under FDUTPA a plaintiff must prove three elements: 1) a deceptive act or unfair practice; 2) causation; and 3) actual damages. *XTec, Inc. v. Hembree Consulting Servs.*, No. 14-21029-CIV, 2015 U.S. Dist. LEXIS 79134, at *33 (S.D. Fla. June 18, 2015). “A deceptive act or practice is one ‘that is likely to mislead the consumer acting reasonably in the circumstances, to the consumer’s detriment.’” *Kenneth F. Hackett & Assocs. v. GE Capital Info. Tech. Sols., Inc.*, 744 F. Supp. 2d 1305, 1312 (S.D. Fla. 2010) (citing *Millennium Commc’ns & Fulfill., Inc. v. Office of the Att’y Gen.*, 761 So. 2d 1256, 1263 (Fla. 3d DCA 2000)). “An unfair practice is ‘one that offends established public policy and one that is immoral, unethical, oppressive, unscrupulous or substantially injurious to consumers.’” *Id.* (citing *Samuels v. King Motor Co. of Fort Lauderdale*, 782 So. 2d 489, 499 (Fla. 4th DCA 2001)). To prevail on its FDUTPA claim, the Defendant must prove that “there was an injury or detriment to consumers.” *Caribbean Cruise Line, Inc. v. Better Bus. Bureau of Palm Beach Cty., Inc.*, 169 So. 3d 164, 169 (Fla. 4th DCA 2015).

(i) Defendants Cannot Show a Deceptive or Unfair Act That Harms Consumers.

As a preliminary matter, neither IH nor IPH are consumers of any good or service relating to their FDUTPA claim, and have failed to show that the alleged deceptive or unfair acts impact any

consumers whatsoever. Plaintiffs did not advertise, solicit, provide, offer, or distribute any tangible or intangible good, service, or property to Defendants or any other consumer; nor do Defendants even claim that Plaintiffs have done so. *See* Fla. Stat. § 501.203(8); Countercl. ¶ 145.

In addition, because the purported facts as alleged in Defendants' FDUTPA claim relate solely to the E-Cat IP and purported representations regarding a Florida customer, Defendant IH lacks standing to pursue the FDUTPA claim. *See* Countercl. ¶¶ 139-148. As noted *supra*, IH's only interest in the License Agreement pertains to its ownership of the 1MW Plant. Each of the purportedly unfair or deceptive acts that Defendants complain of occurred after IH purchased the 1MW Plant and after the Validation test took place. *See* Countercl. ¶¶ 4, 56; *See* SOF ¶¶ 12, 16-17. Amended section 3.2(a) of the License Agreement is clear that a refund for payment of the 1MW Plant is possible only if (a) the Plant was not timely delivered or (b) Validation was not achieved. *See* SOF ¶¶ 7-8. Defendants' FDUTPA claims are unrelated thereto, and therefore this claim, should it exist at all, belongs only to IPH, and summary judgement is proper against IH.

Yet, IPH can point to no actual proof or evidence in support of their FDUTPA claims. IPH's corporate representative testified that IPH had no information with respect to any element of its FDUTPA claim.⁶ *See* SOF ¶¶ 102-108.

Given IPH's total lack of knowledge, information, or proof with respect its own FDUTPA allegations, summary judgment against IPH is proper.

(ii) **Defendants Cannot Show Causation.**

With respect to causation, Defendants must "show they were actually aggrieved by the unfair or deceptive representation." *Gastaldi v. Sunvest Resort Cmty., LC*, No. 08-62076-CIV, 2010 U.S. Dist. LEXIS 9876, at *66-67 (S.D. Fla. Feb. 3, 2010). The undisputed facts, as stated *supra*, show that IH does not have standing to bring any claim and that IPH has no idea how it was purportedly aggrieved. Furthermore, Defendants were admittedly only concerned with testing the E-Cat IP, and did not care about any purported customer. *See* SOF ¶ 99.

Defendants' ultimate goal was "to accommodate [Dr. Rossi] and to determine the state of the art, whether or not it really works." *See* SOF ¶ 99. IH's corporate representative testified that Defendants "could care less about a customer." *See* SOF ¶ 99. The License Agreement did not require that a customer be involved in any way with any test under the Agreement. *See* SOF ¶ 96. Moreover,

⁶ Plaintiffs are currently seeking sanctions against Defs. IPH and Cherokee as a result of their failure to comply with Rule 30(b)(6).

Defendants did no due diligence into the customer other than meet with its CEO, whom Defendants knew to be Dr. Rossi's real estate attorney. *See* SOF ¶ 99.

Because Defendants cannot show that Plaintiff caused them harm, summary judgment is proper with respect this claim.

(iii) **Defendants Suffered No Actual Damages.**

FDUTPA permits recovery for actual damages only. *Nat'l Union Fire Ins. Co. v. Tyco Integrated Sec., LLC*, 2015 U.S. Dist. LEXIS 82646, *99 (S.D. Fla. June 24, 2015 (citing *Rollins*, 951 So. 2d at 869)). Actual damages do not include special consequential damages. *Id*; *see also Rodriguez v. Recovery Performance & Marine, LLC*, 38 So. 3d 178, 180 (Fla. 3d DCA 2010. In fact, Florida courts "specifically reject the recovery of [such] damages under FDUTPA." *Eclipse Med., Inc. v. Am. Hydro-Surgical*, 235 F.3d 1344 (11th Cir. 2000. Actual damages are measured by "the difference in the market value of the product or service in the condition in which it was delivered and its market value in the condition in which it should have been delivered according to the contract of the parties." *Tyco*, 2015 U.S. Dist. LEXIS 82646, at *99 (citing *Rollins*, 951 So. 2d at 869)).

As a preliminary matter, IPH should be barred from presenting any testimony or evidence as to its purported damages. *See* Plaintiffs' Motion for Sanctions [DE 179]. IPH's corporate representative testified that it did not know how much IPH had suffered in damages stemming from its FDUTPA claim. *See* SOF ¶ 107. In fact, IPH also testified that it was not sure that IPH was even seeking any money damages related to the claim. *See id.*

Event absent such a bar, neither IH nor IPH has presented any evidence that they ever paid Rossi or Leonardo anything as a result of the alleged deceptive acts that could constitute actual damages. To the contrary, IPH and IH readily admit that they did not pay the \$89 million sought by Plaintiffs. *See* Countercl. ¶¶ 74, 80; *See* SOF ¶ 108. Instead, IPH and IH claim that they incurred consequential damages as a result of the alleged deceptive acts, including: (a) maintenance expenses related to operating the 1MW Plant, (b) expenses related to the shipment of the equipment, and (c) travel and housing expenses. *See* Countercl. ¶¶ 141-48. Under Florida law, these purported damages are not recoverable under FDUTPA. *See, e.g., Eclipse Med., Inc. v. Am. Hydro-Surgical*, 235 F.3d 1344. As IH has no standing, and neither IH nor IPH cannot prove any actual damages, summary judgment in favor of Rossi and Leonardo is appropriate.

IV. Summary Judgment is Proper Against Defendants on Their Affirmative Defenses

An affirmative defense is established only when “a defendant admits the essential facts of the complaint and sets up other facts in justification or avoidance.” *Sparta Ins. Co. v. Colareta*, No. 13-60579-CIV, 2013 WL 5588140, at *2 (S.D. Fla. Oct. 10, 2013 (citing *Morrison v. Exec. Aircraft Refinishing Co.*, 434 F. Supp. 2d 1314, 1317–18 (S.D. Fla. 2005))). Such a defense is legally sufficient only where it “satisfies the heightened pleading standard” of *Twombly* and *Iqbal*, and gives “fair notice of the defense” and “the grounds upon which it rests.” *Ocean's 11 Bar & Grill, Inc. v. Indem. Ins. Corp. RRG*, No. 11-61577-CIV, 2012 WL 5398625, at *18 (S.D. Fla. Nov. 2, 2012, *aff'd sub nom. Ocean's 11 Bar & Grill, Inc. v. Indem. Ins. Corp. of DC, Risk Retention Grp.*, 522 F. App'x 696 (11th Cir. 2013); *Adams v. Jumpstart Wireless Corp.*, 294 F.R.D. 668, 671 (S.D. Fla. 2013; *see also* Fed. R. Civ. P. 8(a); *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007) and *Ashcroft v. Iqbal*, 556 U.S. 662 (2009).

A. Defendants' Affirmative Defense No. 1: Standing.

The gravamen of Defendants' first affirmative defense is that “Plaintiff Leonardo lacks standing...because the assignment of the License Agreement from Leonardo Corporation, Inc., a New Hampshire corporation, to Plaintiff Leonardo was invalid.” *See* Countercl. ¶¶ 21-22. This defense does not admit, justify or avoid Plaintiffs' claims, but rather seeks to re-write the allegations in the Complaint to suit their defense. Specifically, Defendants reference an ambiguous “assignment” between Leonardo Corporation, a New Hampshire corporation (“Leonardo NH”) and Plaintiff Leonardo Corporation, a Florida corporation (“Leonardo”), yet Defendant provides no factual allegations regarding such alleged “assignment” including, but not limited to, when such “assignment” occurred, the terms of such assignment, the nature of the assignment, or any other specifics regarding such purported assignment. In fact, in alleging that an “assignment” occurred, Defendants first affirmative defense denies the allegation in the Plaintiffs Complaint that Leonardo NH merged with Leonardo and that Plaintiff Leonardo “suffered harm” as a result of Defendants actions.

To the extent Defendants erroneously contend the merger between Leonardo NH and Leonardo was an “assignment,” such contention is legally untenable and specifically contradicted by Florida Law. In the instant case, the Complaint specifically alleges that Leonardo NH was merged into Plaintiff Leonardo. *See* Compl. at 1 FN 1. Florida law provides that “the title to all real estate and other property, or any interest therein, owned by each corporation party to the merger is vested in the surviving corporation without reversion or impairment” and “the surviving corporation shall thenceforth be responsible and liable for all the liabilities and obligations of each corporation party to the merger.” § 607.1106(1)(b-c), Fla. Stat. A merger “is like the uniting of two or more rivers, neither stream is

annihilated, but all continue in existence.” *Celotex Corp. v. Pickett*, 490 So. 2d 35, 38 (Fla. 1986 (citation omitted)). It is well settled in Florida that a merger of two corporations creates a “shared existence” within the surviving corporation. *Id.* (“merger merely directs the blood of the old corporation into the veins of the new, the old living in the new.”).

Accordingly, in the case of a merger, “the surviving corporation retains the interests of the merging corporations,” including contractual interests, and the surviving corporation is not considered an “assignee” and is therefore not precluded from enforcing the terms of such contract. *Ferguson Enterprises, Inc. v. Astro Air Conditioning and Heating, Inc.*, 137 So. 3d 613, 616 (Fla. 2d DCA 2014 (surviving corporation was entitled to enforce personal guarantees which were otherwise non-assignable)). Moreover, § 607.1106-07, governing mergers between two or more corporations in Florida, virtually mirrors the corresponding section of the Model Business Corporation Act (“MBCA”). Similar to § 607.1106-07, the MBCA, provides that “all property owned by, and every contract right possessed by, each corporation or eligible entity that merges into the survivor is vested in the survivor without reversion or impairment.” § 11.07, MBCA. In the official comments to § 11.07 of the MBCA, the drafters explicitly state that “[a] merger is not a conveyance, transfer, or assignment” and that “[i]t does not give rise to a claim that a contract with a party to the merger is no longer in effect on the ground of nonassignability, unless the contract specifically provides that it does not survive a merger.” *See id.* §11.07, comment ¶ 1. Assuming, arguendo, that Defendants are claiming that the merger between Leonardo NH and Plaintiff Leonardo was an “assignment” such argument fails as a matter of law.

Importantly, when asked about any evidence or support for this first affirmative defense, Defendant IPH’s corporate representative could not identify a single piece of evidence or fact. *See* SOF ¶ 109. Further, Defendants in the present case should be estopped from making this standing argument, as they have counter-sued Leonardo-Florida in this case, claiming they are the proper party to this case. *See* Countercl. ¶ 15.

Lastly, Defendants erroneously claim that Rossi lacks standing with respect to Plaintiffs’ breach of contract claims because “the payment that is the basis of that claim (Count I) is due, if at all, to Leonardo Corporation New Hampshire, not Rossi” is likewise untenable and without merit. There is no question that both Plaintiffs Leonardo and Rossi were parties to the License Agreement, in contractual privity with the Defendants IH, and subsequently IPH, and that both Rossi and Leonardo are therefore entitled to enforce the terms of the License Agreement. Despite diligent effort, the undersigned has been unable to find any authority to support Defendants’ defense that because payment

under the contract was to be directed to only one party to the contract, that the other parties to the contract lose standing to enforce the contract terms. Moreover, to the extent Defendants attempt to claim that Rossi was not damaged by Defendants breach, such claim constitutes a mere denial of Plaintiffs' allegations that "Leonardo and Rossi have been damaged" by Defendants' breach of the contract terms. Defendants' first affirmative defense is wholly untenable in fact or law.

B. Defendants' Affirmative Defense No. 2: Estoppel, Waiver, Laches.

Plaintiffs' unjust enrichment claim is against Defendants IH and IPH. This claim was plead in the alternative, should the Court deem that License Agreement is unenforceable. Plaintiffs' fraudulent inducement claim is against all five named Defendants.

Importantly, when asked about any evidence or support for this second affirmative defense, Defendant IPH's corporate representative could not identify a single piece of evidence or fact. *See* SOF ¶ 110.

i. Estoppel. To succeed on a claim for equitable estoppel, Defendants must prove: "(1) a representation of fact by one party contrary to a later asserted position; (2) good faith reliance by another party upon the representation; and (3) a detrimental change in position by the later party due to the reliance." *MSC Mediterranean Shipping Co. SA, Geneva v. Metal Worldwide, Inc.*, 884 F. Supp. 2d 1269, 1274 (S.D. Fla. 2012).

Defendants have failed to identify any evidence in support of this defense.

ii. Waiver. To succeed on a claim for waiver, Defendants must prove: "(1) the existence at the time of the waiver of a right, privilege, advantage, or benefit which may be waived; (2) the actual or constructive knowledge of the right; and (3) the intention to relinquish the right." *Dantzler, Inc. v. PNC Bank, Nat. Ass'n*, 946 F. Supp. 2d 1344, 1367–68 (S.D. Fla. 2013). Defendants fail to present evidence as to any of these elements or any facts that would purport to support a waiver. Defendants' claim that "Plaintiffs either never had, waived, or stopped [sic] from asserting their fraudulent inducement claim by agreeing to the provisions in the License Agreement..." is preposterous. If this Court were to accept such erroneous logic, every claim for fraudulent inducement would be immediately vitiated by alleging the elements of a cause of action for fraudulent inducement. Logically, Plaintiffs were fraudulently induced to do something – enter into the License Agreement. Defendants now argue that their fraud should be ignored because they were successful in duping Plaintiffs to "sign on the dotted line." There is no legal or factual support for this position, and, accordingly, Plaintiffs are entitled to judgment as a matter of law as to this defense.

iii. Laches. To succeed on a claim for laches, Defendants must prove: “(1) a delay in asserting a right or a claim; (2) that the delay was not excusable; and (3) that there was undue prejudice to the party against whom the claim is asserted. *AmBrit, Inc. v. Kraft, Inc.*, 812 F.2d 1531, 1545 (11th Cir. 1986); *see also I.C.E. Mktg. Corp. v. Gapardis Health & Beauty, Inc.*, No. 00-02280-CIV, 2014 WL 10093869 at *8 (S.D. Fla. Nov. 13, 2014), *report and recommendation adopted in part*, No. 00-CV-02280, 2015 WL 4243528 (S.D. Fla. July 13, 2015).

Defendants fail to provide any evidence of delay, much less inexcusable delay, or any evidence as to how they were somehow prejudiced as a result of such delay. It is undisputed that the present lawsuit was filed in April 2016, mere months after the underlying testing of the technology completed. Simply, there is neither legal nor factual support for the defense of laches.

C. Defendants’ Affirmative Defense No. 3: Unclean Hands.

For reasons more fully set forth in Section III(G), Defendants’ Affirmative Defense of antecedent breach must fail.

D. Defendants’ Affirmative Defense No. 4: Antecedent Breach.

For reasons more fully set forth in Section III(A-F), Defendants’ Affirmative Defense of antecedent breach must fail.

E. Defendants’ Affirmative Defense No. 5: Unlawful Actions (FDUTPA)

For reasons more fully set forth in Section III(G), Defendants’ Affirmative Defense of unlawful actions must fail.

F. Defendants’ Affirmative Defense No. 7: Proximate Cause.

This defense does not admit, justify or avoid Plaintiffs’ claims, and is instead a mere denial of the element of causation. Denial of causation is not an affirmative defense. Even if it were an affirmative defense, Defendants have produced no evidence in support of how either Plaintiffs’ or the Third-Party Defendants’ actions have resulted in Defendants being unjustly enriched. Simply, this “defense” is nonsensical and Plaintiffs entitled to judgment as a matter of law.

G. Defendants’ Affirmative Defense No. 8: Merger and Integration Clause.

Defendants’ claim that Plaintiffs’ fraudulent inducement claim is barred by the merger and integration clause in the License Agreement and the ratification provision in the First Amendment. Defendants ignore long-standing Florida law.

In Florida, “the existence of a merger or integration clause, which purports to make oral agreements not incorporated into the written contract unenforceable, does not affect the oral representations which are alleged to have fraudulently induced a person to enter into the agreement.”

TEC Serv., LLC v. Crabb, No. 11-62040-CIV, 2013 WL 11326552, at *6 (S.D. Fla. Jan. 23, 2013) (citing *McArthur Dairy, LLC v. McCowtree Bros. Dairy, Inc.*, No. 09-62033, 2011 WL 2731283, at *4 (S.D. Fla. July 13, 2011)). The Supreme Court of Florida has long held that “[t]o hold that by the terms of the contract which is alleged to have been procured by fraud, the [party] could bind the [other party] in such manner that lessee would be bound by the fraud of the [party] would be against the fundamental principles of law, equity, good morals, public policy and fair dealing.” *Oceanic Villas, Inc. v. Godson*, 4 So. 2d 689, 690 (1941).

Accordingly, as a matter of law Defendants’ affirmative defense must fail.

Conclusion

WHEREFORE, Plaintiffs, Andrea Rossi and Leonardo Corporation, respectfully request that the Court enter partial summary judgment against, Defendants with respect to Defendants’ Counterclaims Counts I, II, and IV, and Affirmative Defenses numbers 1-5, 7, and 8, and such other and further relief as this Court deems and proper.

Dated: March 22, 2017.

Respectfully submitted,

/s/ John W. Annesser

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Counsel for Plaintiffs, Andrea Rossi and

Leonardo Corporation

CERTIFICATION OF COMPLIANCE WITH LOCAL RULE 7.1(a)(3)

The undersigned counsel hereby certifies that, in compliance with Rule 7.1(a)(3), Federal Rules of Civil Procedure, that undersigned counsel has conferred with counsel for Defendants in a good faith effort to resolve by agreement the issues raised in this Motion.

/s/John W. Annesser, Esq.

John W. Annesser, Esquire

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by in the manner specified below on March 22, 2017, on all counsel or parties of record on the attached Service List.

/s/ John W. Annesser

John W. Annesser, Esq.

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO. 1:16-CV-21199-CMA/O'Sullivan

ANDREA ROSSI, *et al.*,

Plaintiffs,

v.

THOMAS DARDEN, *et al.*,

Defendants,

**AFFIDAVIT OF DR. ANDREA ROSSI IN SUPPORT OF
PLAINTIFFS' MOTION FOR PARTIAL SUMMARY JUDGMENT**

BEFORE ME, the undersigned authority, personally appeared Dr. ANDREA ROSSI, being first duly sworn on oath, deposes and states:

1. I, Dr. ANDREA ROSSI ("Affiant"), am over the age of majority, and am personally familiar and have personal knowledge of the facts contained herein.

2. Your Affiant is the creator and owner of certain technology that provides for the creation of heat energy in a safe and efficient process using a combination of unique fueling agents and reactions. The technology is referred to as the "Energy Catalyzer" or the "E-Cat." ("E-Cat"). Your Affiant has successfully patented such technology globally, receiving patents from the USPTO (patent no. 9,115,913 B1) and WIPO (patent no. 2016/018851 A1), among others.

3. Your Affiant is a Plaintiff in the above-styled action, and is the chief executive officer of co-Plaintiff, Leonardo Corporation ("Leonardo").

4. On October 26, 2012, your Affiant and Leonardo entered into a License Agreement with Defendant, Industrial Heat, LLC ("Industrial Heat"), for the purchase and territorial license of your Affiant's E-Cat intellectual property.

5. The License Agreement set forth a purchase price of \$100.5 million, which Industrial Heat was to pay in three (3) tranches: (1) \$1.5 million upon execution of the License Agreement; (2) \$10 million upon successful completion of a 24 hour validation test; and (3) \$89

million upon successful completion of a 400-day guaranteed performance test (which the parties referred to, typically, as either the 350-day and/or 400-day test).

6. Industrial Heat paid the first tranche in October 2012 at or around the time the parties executed the License Agreement.

7. Industrial Heat, Leonardo and Rossi executed two (2) amendments to the License Agreement. The First Amendment occurred on April 29, 2013, and the Second Amendment occurred in October 2013.

8. The First Amendment revised the time for validation, the protocol to be used for validation, and the section pertaining to assignment of the License Agreement.

9. The Second Amendment revised the section pertaining to the guaranteed performance test, including the equipment to be used and the timing thereof. The Second Amendment indicated that a Six Cylinder Unit would be used for the guaranteed performance test, but the parties ultimately agreed upon the use of a 1MW plant.

10. On the same date of the First Amendment, April 29, 2013, Industrial Heat assigned its rights under the License Agreement to IPH International, B.V. ("IPH").

11. Irrespective of any amendments and/or assignments, the License Agreement provided that an agreed-upon expert responsible for validation ("ERV") would perform the validation of the plant underlying the second tranche and the guaranteed performance test underlying the third tranche.

12. Your Affiant and Industrial Heat agreed that Fabio Penon ("Penon") would serve as the ERV. The Defendants never advised your Affiant of any objections to Penon serving as ERV with respect to the validation test or the subsequent guaranteed performance test.

13. The validation test took place on April 30 and May 1, 2013 with Penon as ERV. Following the validation test, Industrial Heat paid the second tranche in the amount of \$10 million.

14. Pursuant to Section 3.2(b) of the License Agreement, your Affiant and Leonardo were to transfer to Industrial Heat all intellectual property associated with the E-Cat following the validation test. Accordingly, your Affiant transferred all such intellectual property to the Defendants in conjunction with payment of the second tranche. To be clear, your Affiant did not withhold and/or otherwise fail or refuse to transfer any such intellectual property.

15. Following transfer of the E-Cat intellectual property, the Defendants did not advise your Affiant at any time prior to November 2015 that the Defendants were unable to replicate your

Affiant's technology. In any event, the License Agreement and the amendments did not contemplate replication as a pre-requisite to the payment of any tranche.

16. In or around December 2014, Industrial Heat shipped the 1 MW Plant from North Carolina to Florida. This shipment was in preparation of performing the guaranteed performance test underlying the third tranche.

17. Subsequently, in or around February 2015, Penon submitted a guaranteed performance test protocol to your Affiant and Defendant Thomas Darden. Your Affiant reviewed the protocol, which identified the 1 MW Plant as the equipment to be tested.

18. Your Affiant also reviewed the written comments that Mr. Darden provided to Penon in response to the protocol, including Mr. Darden thanking Penon for his "important work."

19. Your Affiant then began the guaranteed performance test in February 2015 with the understanding that Penon's protocol—including the equipment to be used, the timing of the test, and Penon serving as ERV—were all agreed to by Mr. Darden and the Defendants.

20. From the day the guaranteed performance test began, through the day it ended in February 2016, your Affiant consistently apprised the Defendants and their investors, in writing, of the status of such test.

21. Despite your Affiant's frequent communications throughout the test, none of the Defendants informed your Affiant that they objected and/or disagreed as to whether your Affiant was performing the guaranteed performance test contemplated by the License Agreement any time prior to November of 2015.

22. Rather, the Defendants allowed your Affiant to often work over sixteen (16) hours a day performing the 350+ day guaranteed performance test.

23. The conditions in the facility were extremely hot, as a result of the steam being generated by the E-Cat. The heat created an uncomfortable working environment.

24. Notably, throughout the guaranteed performance test, Industrial Heat brought certain of their investors to the 1 MW Plant. The investors toured the plant, and Industrial Heat encouraged your Affiant to discuss the E-Cat and the status of the guaranteed performance test during such visits.

25. In addition to the foregoing, the License Agreement set forth that Leonardo would not abandon any patent application or patent that is a Licensed Patent without consent of Industrial Heat (or IPH, following the April 29, 2013 assignment). Leonardo accordingly did not abandon

any such Licensed Patent without prior written consent. Similarly, your Affiant never failed to inform and consult with IPH regarding patent prosecution and maintenance of the E-Cat intellectual property.

26. Finally, your Affiant and Leonardo have not engaged in any prohibited competition in violation of the License Agreement; have not advertised, solicited, provided, offered or distributed any tangible or intangible good, service, or property associated with the technology and/or the License Agreement; and have otherwise performed their obligations pursuant to the License Agreement in good faith. In that respect, at no time prior to November 2015 did the Defendants provide your Affiant with any notice that they believed Leonardo violated the License Agreement.

FURTHER YOUR AFFIANT SAYETH NAUGHT.

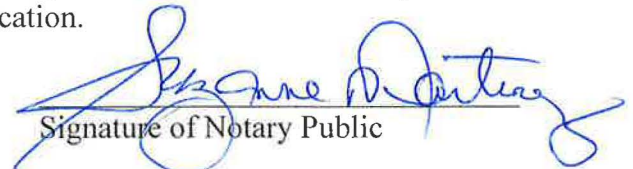
Dated this 22nd day of March, 2017.



ANDREA ROSSI

STATE OF FLORIDA :
COUNTY OF MIAMI-DADE :

The foregoing Affidavit was sworn to under penalty of perjury before me this 22nd day of March, 2017, by ANDREA ROSSI, who is personally known to me/or has produced Passport as identification.



Signature of Notary Public

Suzanne Martinez

Name of Notary Typed, Printed or
Stamped



SUZANNE MARTINEZ
MY COMMISSION # FF 175226
EXPIRES: November 11, 2018
Bonded Thru Budget Notary Services

Commission Number/Expiration

1 UNITED STATES DISTRICT COURT
2 SOUTHERN DISTRICT OF FLORIDA

3 CASE NO: 1:16-cv-21199-CMA
4

5 ANDREA ROSSI, ET AL.,

6 Plaintiffs,

7 vs.

8 THOMAS DARDEN, ET AL.,

9 Defendants.
10 _____/

11 PERLMAN, BAJANDAS, YEVOLI &
12 ALBRIGHT, P.L.

13 282 CATALONIA AVENUE

14 SUITE 200

15 CORAL GABLES, FL 33134

16 Wednesday, February 15, 2017

17 9:02 a.m. - 4:56 p.m.

18 VIDEOTAPED DEPOSITION OF SLOCUM HATCH FOGLEMAN
19 (Corporate Representative of Cherokee Investment
20 Partners, LLC)

21 Taken on behalf of the Plaintiff before
22 Elizabeth Cordoba, RMR, CRR, FPR, Notary Public in
23 and for the State of Florida at Large, pursuant to
24 Plaintiff's Notice of Taking Deposition in the above
25 cause.

1 but it is used to describe a body of work that Tom Darden
2 and John Mazzarino have been involved in in a partnership
3 together that spans close to, if not, 30 years.

4 Q. So it is your understanding that when the term
5 "Cherokee" is used, it refers to all of the dealings
6 between Mr. Mazzarino and Mr. Darden?

7 A. As I said before, it's in my mind, and I am
8 not -- I don't want to be too specific about the word
9 "brand," but in my mind when I use "brand," I mean an
10 intangible to describe the body of work that I mentioned
11 in the previous statement.

12 Q. Let me ask you this way, does Cherokee
13 Investment Partners have a website?

14 A. Yes.

15 Q. And what is that website?

16 A. Cherokeefund.com.

17 Q. Okay. That is the website for Cherokee
18 Investment Partners, LLC, CIP?

19 A. I believe that is correct. I believe they own
20 that domain name.

21 Q. When is the last time you have been on that
22 website?

23 A. Not recently. I understood it was being
24 reworked.

25 Q. Now, on that website it is represented that



(<http://cherokeefund.com/>)

Cherokee is an investment company that blends capital with creativity, experience and resolve to provide superior financial, environmental and social returns for investors, partners and communities. Cherokee invests both private equity and venture capital to create value for all involved.



[\(http://cherokeefund.com/\)](http://cherokeefund.com/)

Executive Leadership



<http://cherokeefund.com/2015/tom-darden>

Tom Darden

<http://cherokeefund.com/2015/tom-darden> Founder & Chief Executive Officer



<http://cherokeefund.com/2015/john-mazzarino/>

John Mazzarino (<http://cherokeefund.com/2015/john-mazzarino/>)

<http://cherokeefund.com/2015/john-mazzarino/> Founder & Managing Principal

Team



[\(http://cherokeefund.com/2015/trista-balmer/\)](http://cherokeefund.com/2015/trista-balmer/)

Trista Balmer (<http://cherokeefund.com/2015/trista-balmer/>)

Accountant



[\(http://cherokeefund.com/2015/bret-batchelder/\)](http://cherokeefund.com/2015/bret-batchelder/)

Bret Batchelder

(http://cherokeefund.com/2015/bret-batchelder) *Managing Director*



[\(http://cherokeefund.com/2015/amy-biggers/\)](http://cherokeefund.com/2015/amy-biggers/)

Amy Biggers

(<http://cherokeefund.com/2015/amy-biggers>)Accounting Manager



(<http://cherokeefund.com/2015/wendy-carter>)

Wendy Carter

(<http://cherokeefund.com/2015/wendy-carter>)Accountant



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1 UNITED STATES DISTRICT COURT
2 SOUTHERN DISTRICT OF FLORIDA

3 CASE NO: 1:16-cv-21199-CMA
4

5 ANDREA ROSSI, ET AL.,

6 Plaintiffs,

7 vs.

8 THOMAS DARDEN, ET AL.,

9 Defendants.
10 _____/

11 PERLMAN, BAJANDAS, YEVOLI &
12 ALBRIGHT, P.L.
13 282 CATALONIA AVENUE
14 SUITE 200
15 CORAL GABLES, FL 33134
16 Monday, February 13, 2017
17 9:07 a.m. - 5:18 p.m.

18 VIDEOTAPED DEPOSITION OF JOHN THOMAS VAUGHN
19 (Corporate Representative of Industrial Heat, LLC)
20

21 Taken on behalf of the Plaintiff before
22 Elizabeth Cordoba, RMR, CRR, FPR, Notary Public in
23 and for the State of Florida at Large, pursuant to
24 Plaintiff's Notice of Taking Deposition in the above
25 cause.

1 A. Not to my knowledge at least.

2 Q. Okay. We talked a little bit earlier about
3 Industrial Heat and when it was formed. Do you recall
4 when it was formed?

5 A. I believe that it was formed October 24, 2012.
6 But I am sure you guys have this, this information.

7 Q. Do you know why it was formed?

8 A. For the purposes of entering into a license
9 agreement.

10 Q. Okay. IPH, do you know when that was formed?

11 A. I don't recall the exact date. I am trying to
12 recall the time period. If I recall correctly, and I
13 didn't review this, so my memory may fail me here, but I
14 think it was formed prior to the second step of the
15 validation -- of the license agreement, what was referred
16 to as the validation phase. If I recall correctly. You
17 guys have all this information.

18 Q. My question is going to be, why was IPH formed?

19 A. It was formed -- we have had a concern all
20 along about protecting IP in this field and ensuring that
21 that IP is -- cannot be subject to a government declaring
22 it property of the government for national security
23 reasons or other reasons.

24 Our goal has always been to ensure that this
25 technology can be made widely available around the world,

1 if those provisions were met, true?

2 A. Industrial Heat was planning to raise
3 additional capital, either from Tom and John, the original
4 sources, or others. And that was, you know, that was a
5 known fact.

6 Q. Okay. Let's look at 3.2 (a). And take a
7 minute to review it. Let me know when you are done.

8 A. Okay.

9 Q. Okay. Did, in fact, Industrial Heat make this
10 payment under 3.2 (a)?

11 A. Industrial Heat paid 1.5 million upon executing
12 the agreement.

13 Q. I'm sorry. Can you repeat your answer?

14 A. Sure. Industrial Heat paid 1.5 million after
15 executing the agreement.

16 Q. Right. Now, did Industrial Heat cut that check
17 or did someone pay on behalf of Industrial Heat?

18 A. I would have to go check, but I believe that
19 Industrial Heat -- I'm not sure, in fact, if Industrial
20 Heat -- I am trying to recall when Industrial Heat set up
21 its bank account and if that was originally paid on behalf
22 of Tom and John or if it was paid on behalf of Industrial
23 Heat. I don't recall. I apologize. But we could look it
24 up.

25 Q. Okay. Is there a reason someone would pay on

1 Q. Did Industrial Heat and Leonardo amend this
2 agreement to provide for a date outside the 120-day
3 period?

4 A. No, not to my knowledge.

5 Q. Has Industrial Heat, prior to the initiation of
6 this lawsuit, ever made a claim that it was entitled to a
7 refund of the 1.5 million paid under 3.2 (a)?

8 A. Prior to the initiation of the lawsuit, I don't
9 believe so.

10 Q. Okay. Had Industrial Heat ever informed
11 Dr. Rossi that they believed that Leonardo Corporation was
12 in violation of Section 3.2 (a)?

13 MR. BELL: Can I have that read back?

14 (A portion of the record was read by the
15 reporter.)

16 MR. BELL: You are saying before the lawsuit?

17 MR. CHAIKEN: At any time.

18 THE WITNESS: Not to my knowledge.

19 BY MR. CHAIKEN:

20 Q. Now, Section 3.2 (a) refers to Section 4 of the
21 agreement. Are you familiar with Section 4?

22 A. I would need to review it.

23 Q. Go ahead. It starts on page three, goes to
24 page four.

25 A. Okay.

1 Q. Okay. Is it your understanding or is it your
2 belief sitting here today that Industrial Heat is entitled
3 to a refund of that \$1.5 million?

4 A. Yes, based on successful validation of a plant.
5 Again, it's a kind of what you know then versus what you
6 know now. But at the time we consented to pay the 11 and
7 a half -- an aggregate of 11 and a half million. In
8 retrospect, knowing what we know today, we shouldn't have
9 done that. And in retrospect, the technology did not
10 perform as we were being led to believe that it did.

11 Q. So it is your understanding sitting here today
12 that Industrial Heat's entitled to a refund of the --
13 let's not talk about the \$10 million yet, let's just talk
14 about the 1.5. You are suggesting that Industrial Heat is
15 entitled to a return of 1.5 million?

16 A. Just to review the conditions under which that
17 could be returned. It said: "In the event a plant is not
18 delivered or validation is not achieved within the time
19 period set forth in Section 4, the full 1.5 million will
20 be refunded within two business days of its request.
21 Refund of the 1.5 million will not be provided for any
22 other reason and no other refund will be provided for any
23 reason."

24 Q. Did the company make a request for the
25 1.5 million back?

1 A. Not prior to the initiation of this lawsuit, I
2 don't believe. So if that is a requirement, and I am not
3 a lawyer, if the company did not make that request, then I
4 don't know. I mean, you guys would have to figure that
5 out.

6 But if it is based on validation, which is what
7 I am more focussed on, then it seems to me there is an
8 argument that we are due back that capital because it did
9 not validate, as specified, though, at the time, of
10 course, Penon was saying that it did. Anyway, it is a
11 what you know then versus what you know now.

12 Q. We will get into the validation in a little
13 bit, in a little while. But just talking about the time
14 frame for this to take place.

15 Is Industrial Heat making a claim that because
16 it wasn't performed timely, that it should be entitled to
17 a refund of the 1.5 million?

18 A. Based on contract here, I think that is one
19 thing that should be examined. The other thing that I
20 would say should be examined is whether or not the
21 technology actually validated as advertised.

22 Q. Let's put those two things, separate them out.

23 A. Okay.

24 Q. You are here today as the representative of
25 Industrial Heat. I am asking you, is Industrial Heat

1 A. Let me refresh. The reason I remember, I
2 remember the format. It is an outline of what would take
3 place for the validation protocol in the agreement.

4 Q. So this is what the parties agreed to would be
5 the protocol for purposes of the validation tests as
6 identified in Section 3.2 (a) of the agreement?

7 A. I believe that is correct, Brian. I am just
8 reviewing that here. I believe that is correct.

9 Q. Okay. Now, you said that you prepared it with
10 the help of Tom and T. Barker Dameron; is that correct?

11 A. I believe that is correct.

12 Q. Did you have any other scientists or engineers
13 participate in its draft or review?

14 A. I don't recall. I don't recall. I can't
15 recall, for example, did I run this by the 3 Phoenix guys
16 or Tom D'Muhala? I don't think so.

17 Q. Did you think you had enough eyes on it that
18 you felt comfortable with the protocol at the time?

19 A. Yeah. It is a good thing to specify, at the
20 time, versus kind of retrospectively. At the time I think
21 we thought that because we thought that it was a serious
22 amount of real energy and a serious real COP. And if
23 those were the cases, then it shouldn't be as difficult to
24 determine its performance. Or at least that was our
25 belief at the time. I think we underestimated it.

1 for Cherokee.

2 Do you know why they reference Cherokee in this
3 matter?

4 A. I don't. But, you know, it was -- sure, again,
5 in reference to, as we have described earlier, stuff that
6 Tom and John are doing, but on the venture side of things.

7 Q. And down below in their opinion they state that
8 they believed based on, I am quoting, "on our collective
9 review and discussion that the test is sufficient to
10 demonstrate whether the tested device meets the
11 contractual specifications."

12 Did you have any discussions with Dewey Weaver
13 or Paul Morris about the protocol?

14 A. I imagine that I did. I don't recall a lot of
15 those discussions or particulars about those discussions.
16 But it is hard to believe that I would not have asked them
17 to elaborate on this.

18 Q. Now, going back to the Exhibit A to the first
19 amendment. That one. Exactly. It references an expert
20 responsible for validation, "ERV".

21 Was there an ERV selected for purposes of the
22 validation test?

23 MR. BELL: I'm sorry, where are you? Okay. I
24 apologize. I am with you.

25 THE WITNESS: We -- you know, we thought it was

1 Q. Are there any written communications from
2 Industrial Heat where Industrial Heat says We disagree
3 with Penon as the ERV?

4 A. There is written communications where it is
5 clear that we expected that it would be Bureau Veritas.
6 And then it changed from Bureau Veritas being the ERV to
7 Penon, an employee with Bureau Veritas, to, Oh, he is not
8 exactly an employee, he is a consultant to Bureau Veritas.
9 Whether he is or not, I don't know.

10 Q. Okay. My question is really simple. Is there
11 an e-mail or any communication where Industrial Heat says,
12 We disagree with Penon as the ERV? Either it exists or it
13 doesn't.

14 A. Not to my knowledge. But you would have to
15 check the e-mails.

16 Q. If such a communication existed, we would have
17 received it in the course of discovery, would we not?

18 A. Correct.

19 Q. Exactly.

20 A. But there are e-mails, just to elaborate, that
21 speak to our belief and desire that it would be Bureau
22 Veritas certifying at the validation stage.

23 Q. And you are confident that no one from
24 Industrial Heat ever agreed to use Penon as the ERV?

25 A. As I said before, Andrea selected Penon. We

1 thought it was going to be Bureau Veritas. We were
2 provided a plethora of information around this time,
3 including Levi and the Uppsala professor's report, which
4 made us more willing to allow Andrea to continue, when in
5 retrospect we probably could have been much more
6 confrontational at the time.

7 Q. So based on your response, there is no
8 communications that you are aware of in which Industrial
9 Heat agreed to use Penon as the ERV, correct?

10 A. I don't know. There may be. There may not be.
11 I'm not sure.

12 Q. Well, based on what you just told me, you said
13 Industrial Heat did not agree or approve Penon. They
14 allowed the test to go forward, but they didn't approve
15 Penon, did they?

16 THE WITNESS: Could you read what I said?

17 (A portion of the record was read by the
18 reporter.)

19 BY MR. CHAIKEN:

20 Q. Okay. So you would agree with me that, as far
21 as you know, Industrial Heat never approved and never said
22 specifically, We agree that Penon is the ERV?

23 A. I am unaware of communication where we
24 specifically agreed with Penon being the ERV, but there
25 may be such communication out there. I can't recall all

1 of our e-mails and all of our documents.

2 (Exhibit 17, IH99334 through 99336, was marked
3 for Identification.)

4 BY MR. CHAIKEN:

5 Q. Let me show you what has been marked as
6 Exhibit 17. Exhibit 17 has been Bates stamped IH99334
7 through 99336. On the first page of this exhibit is a
8 couple of e-mails. The first one is from JT Vaughn to CJ
9 Case and Christopher Lomax. Those are attorneys for Jones
10 Day; is that correct?

11 A. That is correct. That is in May 2016.

12 Q. Right. The e-mail on the bottom of the page is
13 from Tom Darden, dated April 24, 2013 to Andrea Rossi and
14 it cc's yourself and John Mazzarino. Do you see that?

15 A. I see it.

16 Q. And it talks about test process?

17 A. Mm-hmm.

18 Q. And on the second paragraph Tom Darden writes
19 to Andrea Rossi and he says: "Here are my thoughts.
20 First, as we indicated, we can accept Fabio Penon as the
21 ERV instead of BV." Do you see that?

22 A. I see that.

23 Q. Were you aware -- have you seen this e-mail
24 before?

25 A. Clearly, I have seen it before. I haven't

1 scene it recently.

2 Q. Does this change your mind as to whether or not
3 a writing exists showing that Industrial Heat approved
4 Fabio Penon as the ERV?

5 A. That is what Tom is doing in this e-mail.

6 Q. Right so you would agree with me then that the
7 parties agreed that Fabio Penon was going to be the ERV,
8 right?

9 A. Based on this e-mail, which is from Tom to
10 Andrea, it appears that he accepts Fabio Penon as the ERV
11 instead of BV.

12 You can see, consistent with what I said, this
13 is all happening very close to the April 30th date when we
14 were also receiving additional information from Andrea
15 that was -- appeared to be positive.

16 Q. Right. Did the -- if you could go back to the
17 license agreement itself. The license agreement, which is
18 Exhibit 13, did the license agreement contemplate multiple
19 ERVs or just one ERV?

20 A. You know, I would have to read it through. I
21 was under the impression that it was multiple ERVs, ERVs
22 at the validation stage and then an ERV later, at the next
23 phase. But, you know, it may be only one. I would have
24 to go back and read it.

25 I think that this is one of the things that you

1 but I can't recall whether or not it was.

2 The nuclear engineer was a gentleman I referred
3 to previously, or supposedly is a nuclear engineer, I
4 really don't know. Ruggiero, whatever Ruggiero's name
5 was. So that is who reviewed it, as I recollect.

6 Q. And within five days of validation, well, let
7 me put it this way. Sometime in -- sometime after the
8 validation test in April or May 2013, Leonardo did, in
9 fact, receive a \$10 million payment from Industrial Heat,
10 agreed?

11 A. Right.

12 Q. Okay. So was it the position, at least at the
13 time, that the provisions of section 3.2 (b) had been met
14 by Leonardo?

15 A. At the time clearly we were satisfied enough to
16 transfer the 10 million, the next tranche.

17 Q. Now, I understand that you have issues with the
18 validation test and the process and procedure, and we are
19 going to leave that for a second. Is there anything other
20 than that that you contend Leonardo violated with respect
21 to this provision?

22 A. You know, one question, and this is kind of
23 looking back in retrospect. Again, we were blinded by the
24 positive news from the professor's report and, you know,
25 the apparently positive Penon data. But it says, And a

1 A. Not to my knowledge.

2 Q. Does Industrial Heat claim today that it's
3 entitled to keep the license to the E-Cat IP?

4 A. That it is entitled to keep the license to the
5 E-Cat IP?

6 Q. Yeah.

7 A. I see no reason why we wouldn't be entitled to
8 keep the license. I don't think that we have any interest
9 in retaining the license because it doesn't work.

10 Q. Has Industrial Heat offered to give the license
11 back to Leonardo Corporation?

12 A. I can't recall. Have we offered that? I don't
13 recall. I know that has been discussed.

14 MR. BELL: Don't go into discussions that you
15 have had with your counsel.

16 THE WITNESS: I apologize.

17 MR. BELL: So I think his answer was -- let's
18 have the question read back. Just answer his
19 question yes or no.

20 (A portion of the record was read by the
21 reporter.)

22 THE WITNESS: I'm not sure. I don't think so
23 at this point.

24 BY MR. CHAIKEN:

25 Q. Does Industrial Heat believe it has value?

1 A. That the license agreement has value to date?

2 Q. Yes.

3 A. No.

4 Q. Does Industrial Heat believe that the E-Cat IP
5 has value?

6 A. No, with one caveat. And this is, you know, it
7 would be an obtuse kind of minimal value, which would be
8 if some of the claims in some of its patent applications
9 were allowed and they, in fact, relate to something
10 somebody else is doing that does work. But that is a
11 pretty hypothetical scenario, so I think the answer is no.
12 But you could paint a hypothetical or possibly it could be
13 some value there.

14 Q. Is there a provision in the license agreement,
15 that is Exhibit 13 still, that provides that IH must be
16 able to successfully replicate a certain COP result
17 without the assistance of Dr. Rossi?

18 MR. BELL: Objection to form.

19 THE WITNESS: I would have to review the
20 license agreement. Clearly, there was a --
21 requirements that -- I would have to review it,
22 Brian. I'm not sure.

23 BY MR. CHAIKEN:

24 Q. Are you aware of one sitting here today?

25 A. What is that?

1 word "replicate" appear anywhere in the agreement?

2 MR. BELL: Objection to form.

3 THE WITNESS: As I stated earlier this morning,
4 we were, when Andrea drafted the agreement, we were
5 trying not to change his language unless we felt
6 absolutely we needed to. And when you combine 12 (b)
7 and 13-1, we believe that gets the same effect.

8 BY MR. CHAIKEN:

9 Q. During the one year following validation, call
10 it May 1, 2013, did Industrial Heat ever tell Dr. Rossi
11 that it could not replicate?

12 A. Yes.

13 Q. When did it do that?

14 A. I believe on numerous different occasions. But
15 one explicit conversation that comes to mind is a
16 conversation that Tom and I had with Andrea around the
17 kitchen table at Triangle Drive. Triangle Drive is where
18 the initial facility where Andrea worked is located. And
19 the basis of that conversation was to say to Andrea, you
20 know, Look, you think things are going swimmingly. We
21 don't believe that is the case. We can't replicate it.
22 You think it's -- the results are fine. We are not seeing
23 the same results.

24 And it became a heated conversation. And Tom
25 eventually, you know, after he kind of pounded the table

1 quite literally, stormed out. And I think that was in the
2 fall -- I know that was in the fall of '13. I don't
3 remember was it September, October, November. I don't
4 remember exactly. But it was during that period of time.

5 Q. Did Industrial Heat ever make that
6 communication to Dr. Rossi in writing?

7 A. I don't know if we did. And we were seeing him
8 quite frequently in person at that time. And so it
9 wouldn't surprise me if we did not, that it was only
10 verbal. But I don't know. There may be some written
11 communication along those lines.

12 And, you know, the other thing is, it was much
13 easier to communicate in person with Andrea than it was
14 via e-mail because of the way he would react or appeared
15 to react via e-mail. You can see that in his responses.

16 Q. Mr. Vaughn, did you ever -- and I was hoping to
17 get a yes or no question to this, you can explain if you
18 need to -- did you ever in writing point to those two
19 contractual provisions that you just pointed me to, and
20 put those in writing and say, Dr. Rossi, you are in
21 violation of these two provision?

22 A. I don't believe that we did, with the
23 explanation I just provided.

24 (Exhibit 19, Fourth Amended Answer, Additional
25 Defenses, Counterclaims and Third Party Claims, was

1 marked for Identification.)

2 BY MR. CHAIKEN:

3 Q. Okay. I am going to show you, let's mark this
4 one as Exhibit 19. This is the Fourth Amended Answer,
5 Additional Defenses, Counterclaims and Third Party Claims
6 filed by the defendants in this case.

7 You said you reviewed this before?

8 A. Yeah. And I also during break reviewed this
9 document. And I was -- you know, you had asked me earlier
10 about did we believe that Rossi had violated the protocol
11 for validation. And so I reviewed this. This is, as I
12 said, I might need to go back to review these claims. It
13 refreshed me that only 18 of the specified 30 units were
14 tested. This was based on a health law requirement Andrea
15 represented to us.

16 But, anyway, that was another example of a
17 validation of that process. I apologize. I didn't -- I
18 reviewed it during break and wanted to highlight that. I
19 didn't recall that specific example when you asked me
20 earlier.

21 Q. I am glad you brought that up. Let's go to
22 that. So on page 37 you write here, Industrial Heat
23 states that paragraph 49, Because Leonardo and Rossi knew
24 that the plant could not achieve validation at the time of
25 the license agreement, they manipulated the validation

1 testing procedure to deceive counter-plaintiffs into
2 making the second payment under the license agreement.

3 You say "manipulated the validation testing
4 procedure." Does that include manipulating actual data or
5 is it just the procedure we are talking about?

6 A. That is a good question. You know, I mean, I
7 don't know that we know whether or not he manipulated the
8 data, as well, in addition to the procedure. If we go
9 through it, if you read kind of 50, and 50 to -- on a
10 little bit, it talks about how the protocol was
11 manipulated with this health office issue, etc., etc.

12 Q. Okay. Well, let's talk about that for a
13 second. Let's just be very clear. There is a difference
14 between manipulating procedure and manipulating data,
15 correct?

16 MR. BELL: Objection to form.

17 THE WITNESS: There is a difference between
18 manipulating procedure and data. I would say that
19 that's true.

20 BY MR. CHAIKEN:

21 Q. Okay.

22 A. But it could be -- it could be overlapped.

23 Q. Okay. Well, just for purposes of my question,
24 I want to make sure that we are talking about -- we are
25 separating those two different things.

1 A. That is fine.

2 Q. Okay. Does Industrial Heat have any
3 information or proof or a document that you can point me
4 to that shows that Dr. Rossi manipulated any data with
5 respect to the validation test in Italy?

6 A. You know, we would have to -- I would have to
7 refer that question to experts who are reviewing the data.
8 Me sitting here today, I don't -- you know, I can't
9 specifically point to a piece of data, for example, and
10 say -- what you would like to be able to do is say
11 something as clear as, well, he advertised this amount of
12 input power and over here it showed this amount of input
13 power. Clearly, there is a discrepancy.

14 Sitting here today, do I know of such a thing?
15 I'm not sure. But our experts are reviewing that data and
16 they may have specifics that they could reference.

17 Q. Okay. So you as the representative of
18 Industrial Heat can't point me to a single document and
19 you are going to rely on your experts, correct?

20 A. And their analysis of the data, yes.

21 Q. Okay. At the time that this complaint was
22 filed -- when I say "this complaint," I mean this lawsuit,
23 so back in April -- did you have possession of any
24 information that would lead you to believe that the data
25 for the validation test in Italy had been manipulated?

1 three, both. Correct?

2 A. Yeah. I'm sorry, I just lost -- Sorry, I've
3 got it back.

4 Q. Are you with me?

5 A. I am with you, yep.

6 Q. But isn't it true that there other conclusions
7 that could be drawn?

8 A. If there are, they don't come to mind. If
9 there are other conclusions that could be drawn, they
10 don't come to mind.

11 Q. I mean, couldn't it be that you could conclude
12 that Industrial Heat lied about its ability to replicate?
13 Is that a conclusion that could be drawn?

14 A. We did not lie about our ability to replicate.

15 Q. I am not saying that you did or didn't. I am
16 saying, isn't that a conclusion that could be drawn?

17 A. Hypothetically, I suppose that one could make
18 that argument.

19 Q. Could we conclude that Industrial Heat did not
20 have competent scientists or engineers working for it when
21 it tried to replicate?

22 A. No. As I mentioned, we had -- we progressed
23 along the lines of sophistication the more we failed in
24 replication. We kept thinking, well, we didn't
25 successfully replicate. We must not know what we are

1 doing. So we continued to get more sophisticated parties.
2 For example, Bowling and then later our engineering team,
3 both without success.

4 Q. But without knowing all that background
5 information, isn't that a conclusion that could be drawn?

6 A. That one could say we weren't sophisticated
7 enough to assess whether or not -- I don't know. That
8 would seem to me that that would be equally absurd. But I
9 guess you can hypothetically make that argument.

10 Q. Could someone conclude that Industrial Heat
11 used faulty equipment when it was running its test?

12 MR. BELL: Objection to form.

13 THE WITNESS: You could make that argument,
14 Brian. But I don't believe that, you know, if you
15 were -- if an expert were to go back and review all
16 that we did and how we did it, that is not a
17 conclusion they would come to.

18 BY MR. CHAIKEN:

19 Q. Okay. Could someone conclude that Industrial
20 Heat used inferior materials for the catalyst?

21 A. Again --

22 MR. BELL: Objection to form.

23 THE WITNESS: -- I believe all of these are
24 hypothetical arguments that could be made. But it's,
25 you know, we know what we did and we exhaustively

1 tested this, so that we would know before entering
2 into a conflict like this if it did, in fact, work or
3 not. Because certainly you wouldn't be in this
4 position if it does, in fact, work.

5 BY MR. CHAIKEN:

6 Q. Could someone possibly conclude from these
7 facts that Industrial Heat didn't properly follow
8 Dr. Rossi's instructions?

9 MR. BELL: Objection to form.

10 THE WITNESS: That was his -- the burden was on
11 him to ensure that we did follow the instructions and
12 that we were doing what he told us to do based on
13 transfer of the IP. And so, you know, if you want
14 to -- if Andrea is saying, Well, they didn't do what
15 I told them to do, then tell us what to do. You
16 know, I think we were there and saying that
17 frequently.

18 So it is hard to -- in my opinion, that is a
19 hard argument to make, as well. Again, it falls
20 under your hypothetical category. But I don't see
21 how, based on the exhaustive work that we did
22 initially, T. Barker and myself to some extent,
23 admittedly those were less sophisticated than the
24 other efforts, but it was because we thought it was
25 easy and a high order of magnitude signal. No

1 Early on, we were overly optimistic and overly
2 confident, I would say, in our ability to assess the
3 performance of this thing.

4 Q. Let me broaden the scope of my question.

5 A. Sure.

6 Q. Has Industrial Heat or any of its affiliates,
7 in any of its LENR investments ever come across a positive
8 COP in any of its testing?

9 A. It would work as also indeterminate and
10 ongoing. So it is ongoing. We will see.

11 Q. Has Industrial Heat ever told its investors
12 that it had received or it had achieved positive COP in
13 any of its testing?

14 A. Again, if we have, it was in a preliminary
15 communication that was later retracted. I'm not sure that
16 we have. But I just want to caveat that. Because I see
17 you are putting in front of me an e-mail here where it
18 says, I mentioned the 1.3 times COP test, and it looks
19 like maybe this was a draft update. Again, it is kind of
20 preliminary exuberance over something that we thought had
21 affirmed results which we were hopeful about. But later,
22 in further analysis, did not affirm those results.

23 Q. Well, let's talk about Exhibit 20. Exhibit 20
24 is Bates marked 96250 through 95252. It is an e-mail
25 dated July 16, 2013 from you to Tom Darden. At the top it

1 looks like it was forwarded from an earlier e-mail that
2 day. And it's at the middle or three-quarters of the way
3 down, excuse me, one-third of the way down, it says
4 "Industrial Heat update July 2013."

5 What was the purpose of this update?

6 A. I imagine, if I had to guess, it was an update
7 to existing investors at that time.

8 Q. And do you know if this update was ever sent
9 out to investors?

10 A. I don't know for certain, as Tom was sending
11 out the updates at that time. But if I had to guess, a
12 version of it likely was. Whether it was this version, I
13 don't know.

14 Q. Okay. The second paragraph below, where it
15 says Industrial Heat update July 2013, the document
16 states, in the middle of that paragraph: "We tested our
17 plant at the end of April and beginning of May for four
18 days. During the test we operate 37 different reactors
19 for periods ranging from 24 hours to a few hours and the
20 results were good. Our engineer and the independent
21 engineer operating the test reported the machines produced
22 far more energy than they required to operate. Nearly 11
23 times as much in some instances versus our test
24 requirement of six times during the 24-hour test."

25 A. Mm-hmm.

1 have to check with Jim Fogleman. But I don't believe
2 if you would look at a cap table of Industrial Heat,
3 LLC or IH Holdings International Limited that
4 Cherokee Advisors would be listed there. But it may
5 be, and I just don't think it is. Because I think
6 that it was helping cover costs and was later paid
7 back.

8 BY MR. CHAIKEN:

9 Q. Okay. We mentioned Woodford Investments. And
10 you said, I think, the Woodford Investment Fund invested
11 in May of 2015?

12 A. Correct.

13 Q. And they invested \$50 million?

14 A. Correct.

15 Q. And is it your understanding that the valuation
16 for Woodford was a \$2 billion valuation at that time?

17 A. No.

18 Q. What was the valuation, as far as you
19 understood it?

20 A. It was a -- they bought -- they -- it's a
21 nuance question. It is not just because of the way they
22 structured it. They had the ability to buy additional
23 equity at specified prices. So they provided 50 million
24 initially and received, I believe, just under five percent
25 for that. They also had the option to buy up to an

1 MR. BELL: Are you making any representations
2 about the program set forth and the authorship of
3 this document?

4 MR. CHAIKEN: No. I am just wondering if the
5 fact he was aware that Industrial Heat had a joint
6 venture with a market in China.

7 THE WITNESS: No, was the answer.

8 BY MR. CHAIKEN:

9 Q. Okay. Did Leonardo deliver the E-Cat plant to
10 Raleigh, North Carolina in August 2013?

11 A. I believe that is correct.

12 Q. And did Industrial Heat ever tell Leonardo that
13 its delivery in August of 2013 was late and, therefore, a
14 breach of the license agreement?

15 A. Prior to this lawsuit?

16 Q. Yep.

17 A. I don't recall that we did.

18 Q. Is it making a claim now that it breached the
19 license agreement by delivering the plant late?

20 A. He did not deliver the plant within the time
21 frame specified by the license agreement.

22 Q. Yeah, but is it Industrial Heat's position
23 today that that's a breach of the license agreement?

24 A. I believe that is correct.

25 Q. So you are making that claim?

1 Was it Industrial Heat's position that as of
2 August of 2013 that Dr. Rossi could still work towards the
3 third payment that he could earn under the terms of the
4 license agreement?

5 A. Our perspective was that, notwithstanding the
6 fact that he delivered the plant late, we were willing to
7 pay for performance. If he performed, we were still
8 willing to pay him.

9 Q. Okay. So you were operating under that -- that
10 fact scenario, right?

11 MR. BELL: Objection to the form.

12 BY MR. CHAIKEN:

13 Q. That being that if he could perform, he would
14 still be entitled to payment?

15 A. Yes. If the device could be proven to generate
16 real high levels of energy output, such as one megawatt,
17 real COPs such as ten, and the technology had been
18 transferred, then we were willing to pay.

19 Q. And the section in that, goes to the section,
20 third payment, that singular license agreement, we will
21 get to that in a second. But is there a reason that that
22 third test, what we call, I will call it the guaranteed
23 performance test, is there a reason it didn't start in
24 August of 2013?

25 A. I'm not sure why it did not start in

1 then 89 million was pretty easy, in our view of the world.

2 Q. If you turn to page three of this document, it
3 has a paragraph in the middle of the page that says "new
4 facility." Do you see that?

5 A. I see it.

6 Q. It says: "Later on," in the middle of the
7 paragraph, "later on, we hope to find a nearby beta
8 customer with a secure site where we can operate this
9 plant for a year or more. We are impeded in finding this
10 customer now because we are not publicizing our
11 involvement. If any of you have a suggestion, please let
12 me know."

13 Whose idea was it to have a customer for the
14 purposes of testing the E-Cat equipment?

15 A. Andrea's. And, you know, I think Tom mentions
16 that because Andrea had already broached that idea.

17 Q. And when did he broach that idea?

18 A. I'm not sure of the exact time, but clearly
19 early on, after delivery of the plant in August 2015.

20 Q. I see.

21 A. One of his consistent themes was, you know, we
22 always -- he believed it needed to be ratified by a
23 customer. We could care less about a customer, but that
24 was important to Andrea.

25 Q. Did you have conversations with Dr. Rossi about

1 Q. So at that time, at least at the time of this
2 document, was Industrial Heat willing to postpone the
3 start of the guaranteed performance test?

4 MR. BELL: Objection to form.

5 THE WITNESS: It appears that that was
6 contemplated by this amendment, which was never put
7 into effect.

8 BY MR. CHAIKEN:

9 Q. Okay. And whose signature is on page three?

10 A. Tom Darden's and Andrea Rossi's.

11 Q. And you say this agreement was not put into
12 effect, and you say that because why?

13 A. It was never signed by AEG. For it to be
14 effective, it had to be signed by all parties. And I
15 think there was later notice circulated that said it was
16 not in effect because it had never been signed by AEG.

17 Q. Got it. Did -- any time after October 2013 and
18 prior to this lawsuit beginning, did Industrial Heat
19 inform Dr. Rossi that, The time had passed, you could no
20 longer achieve guaranteed performance, and you could no
21 longer achieve an \$89 million payment?

22 A. I'm not sure that we informed him of that
23 verbatim, as you stated.

24 Q. Okay. Did you say it to him in any -- any
25 summary of that, in any -- in any way did you say, Listen,

1 the time has passed, you are -- we are not having a
2 guaranteed performance test?

3 A. I am trying to recall. You know, I -- I don't
4 recall.

5 Q. Do you think that was something that would be
6 important to inform him, that he no longer had the
7 opportunity to earn \$89 million?

8 A. Again, we were planning to pay him, if he could
9 perform. Notwithstanding the fact that he had violated
10 the agreement, not met the conditions of the agreement.
11 So if we had done that, let's take a hypothetical
12 scenario, dealing with a volatile character, you don't
13 know how he is going to respond. Our goal, as stewards
14 and as managers, is to determine definitively the state of
15 the art. And by being confrontational, sooner rather than
16 later, it ensured that you would just blow up in -- there
17 was a chance, at least, that you would blow up the entire
18 relationship and Andrea would stop working on it
19 altogether and so, therefore, we just wouldn't know.
20 Versus getting more information and getting more data to
21 determine the state of the art.

22 Q. Well, couldn't you have told him, Hey,
23 Dr. Rossi, we think that the time has passed, but if you
24 perform, we are willing to still pay you?

25 MR. BELL: Objection to form.

1 THE WITNESS: Again, in a hypothetical
2 scenario, a lot of things are possible and that is
3 one possibility.

4 BY MR. CHAIKEN:

5 Q. Did you ever -- did you ever say that or
6 communicate that with Dr. Rossi?

7 A. No. He wanted to do a specific thing and we
8 wanted to allow him to do that thing to better understand
9 the state of the art.

10 Q. Did Industrial Heat inform its investors that
11 it had considered the time for performance of the
12 guaranteed performance test having -- had passed?

13 A. I believe that we did.

14 Q. And how did you do that?

15 A. I am guessing, but I am guessing it was either
16 an e-mail -- most likely an e-mail or in a memo. But at
17 the same time, Woodford was as eager as we were to pay him
18 if it performed and the technology would have been
19 transferred.

20 Q. And you know that because Woodford told you
21 that?

22 A. Correct. I think, more precisely, said that to
23 Tom.

24 BY MR. CHAIKEN:

25 Q. When did Industrial Heat first come to the

1 conclusion that the time for the guaranteed performance
2 test had passed?

3 A. I don't recall. But from a technical
4 perspective, it would have been 60 days after delivery of
5 the plants, presumably.

6 (Exhibit 28, IH45757 through 45819, was marked
7 for Identification.)

8 BY MR. CHAIKEN:

9 Q. I will show you what has been marked as
10 Exhibit 28. Exhibit 28 has been Bates marked IH45757
11 through 45819. It is a letter from Myers Bigel to Tom
12 Darden.

13 Have you seen this before?

14 MR. BELL: Before you answer, any questions on
15 this document, I believe we called this back, did we
16 not?

17 MR. CHAIKEN: I believe we contested that.

18 MR. BELL: I am not going to let him answer any
19 questions on it.

20 MR. CHAIKEN: Okay. You are going to instruct
21 him not to answer?

22 MR. BELL: I am going to instruct him not to
23 answer.

24 MR. CHAIKEN: Okay. We will save that one.

25 (Exhibit 29, 107550 through 107552, was marked

1 for Identification.)

2 BY MR. CHAIKEN:

3 Q. I am going to show you what has been marked as
4 Exhibit 29.

5 A. Thank you.

6 Q. Exhibit 29 has been Bates stamped 107550
7 through 107552. It is an e-mail from you to John
8 Mazzarino and Tom Darden. It is an IH timeline.

9 And specifically I want to refer you to the
10 second -- well, first of all, do you recall sending this
11 e-mail?

12 A. I recall this e-mail. Again, it's -- I don't
13 recall specifically sending it. I mean, but I recall this
14 e-mail. I need to review it.

15 Q. I am only going to refer to one line.

16 A. Okay. Go ahead.

17 Q. It is on the very bottom of the second page.
18 It says Mid-2014, May through September. It states:
19 "Rossi begins working on one megawatt unit, prepare it to
20 operate on a continuous basis for 350 days, per the terms
21 of the agreement with IH." See that?

22 A. I see that.

23 Q. Was it your opinion as of September 11, 2014
24 that Dr. Rossi was preparing for a 350-day test, pursuant
25 to the agreement?

1 A. He was preparing for that. It doesn't mean
2 that he hadn't also violated the chance to perform under
3 that agreement. Clearly, though, you know, we were -- we
4 were acknowledging that he was planning to test the one
5 megawatt unit for an extended period of time. And we were
6 planning to pay, if he could prove that it performed.

7 (Exhibit 30, 107246 through 247, was marked for
8 Identification.)

9 BY MR. CHAIKEN:

10 Q. Let me show you what has been marked as
11 Exhibit 30. Exhibit 30 has been Bates stamped 107246
12 through 247. It is an e-mail from John Mazzarino to Tom
13 Darden and yourself, dated September 29, 2014.

14 And specifically -- well, you have never seen
15 this before, have you? Actually, you were, you were
16 forwarded this e-mail. At the very top, see that?

17 A. Mm-hmm.

18 Q. Do you recall seeing this e-mail?

19 A. I mean, clearly I must have seen it. It went
20 to me. But I don't know that I recall this specifically.

21 Q. Right. On the second page, I am just concerned
22 about one sentence.

23 A. Okay.

24 Q. On the second page of this document, paragraph
25 begins: "With Andrea back from Switzerland, he is

1 Florida?

2 MR. BELL: Objection to form.

3 THE WITNESS: No. What we allowed him to move
4 forward with his proposal, which was to do testing
5 with a customer he represented as an affiliate of
6 Johnson Matthey in Florida. And we thought, Well,
7 you know, if a group like Johnson Matthey can affirm
8 that this technology performs as advertised, that is
9 a good thing. And so we allowed that to proceed.

10 BY MR. CHAIKEN:

11 Q. We will get into that in a second.

12 But what equipment did Industrial Heat agree
13 would be tested in Florida?

14 MR. BELL: Objection to form.

15 THE WITNESS: Again, he wanted to test, what he
16 was telling us, was the one megawatt plant in Florida
17 with a customer. And so, you know, again, trying to
18 be accommodative and probably overly gracious, in
19 hindsight, we allowed that.

20 BY MR. CHAIKEN:

21 Q. So you agreed to test the one megawatt plant in
22 Florida?

23 MR. BELL: Objection to form.

24 BY MR. CHAIKEN:

25 Q. Agreed?

1 A. We allowed him to do what he was proposing to
2 do.

3 Q. Okay. And what he was proposing to do is test
4 the one megawatt?

5 MR. BELL: Objection to form.

6 THE WITNESS: He was proposing to install the
7 one megawatt at a facility where an affiliate of
8 Johnson Matthey would use it for industrial processes
9 and would provide, you know, feedback on their power
10 consumption from the one megawatt device.

11 BY MR. CHAIKEN:

12 Q. Was the discussion about him doing that test
13 with a six cylinder?

14 MR. BELL: Objection to form.

15 THE WITNESS: I don't recall. I recall him,
16 again, around the second amendment, but I don't
17 recall whether or not at that point he was requesting
18 the six cylinder.

19 BY MR. CHAIKEN:

20 Q. At this point in time the owner of the one
21 megawatt was Industrial Heat, correct?

22 A. Correct.

23 Q. And Industrial Heat controlled where that unit
24 was located, correct?

25 A. Correct. All the while, trying to keep Andrea

1 happy.

2 Q. Okay. But it had full control. Andrea
3 couldn't move the one megawatt without Industrial Heat's
4 agreement, correct?

5 A. Again, we allowed him to take it down there.

6 Q. Right. And, in fact, Industrial Heat did ship
7 the one megawatt to Florida, did it not?

8 A. I believe that we helped Andrea ship it. Now,
9 did we ship it or did Andrea ship it? I don't recall.
10 But it would not surprise me if, in fact, we contracted to
11 transfer, a transportation contractor that was used to
12 move it.

13 Q. Do you know exactly when it was shipped?

14 A. I don't recall exactly. I believe it would
15 have been -- was it December of '14? I don't recall
16 exactly. January of '15. I don't recall exactly.

17 Q. December '14, January '15, somewhere around
18 there?

19 A. I think. I'm not sure.

20 Q. Did -- well, was there -- was there a
21 requirement in the contract, and I know we talked about
22 this a little bit before, that there be an actual customer
23 using the heat generated by the heat gap?

24 A. No.

25 Q. Okay. Would or could that guaranteed -- I will

1 call it for purposes of ease and reference, I am going to
2 call it the guaranteed performance test. You can dispute
3 whether it was or not, but just for the sake of my
4 questioning, I am going to use that term. Fair?

5 A. Okay.

6 Q. Could the guaranteed performance test have been
7 performed without an actual customer?

8 MR. BELL: Objection to form.

9 THE WITNESS: Sure. As originally
10 contemplated, there was no customer involved.

11 BY MR. CHAIKEN:

12 Q. Right. But did IH think it was important to
13 have an actual customer?

14 A. We thought, when we thought it was Johnson
15 Matthey, we were thinking, wow, that is a real reputable
16 company. It was not totally absurd that it would be
17 Johnson Matthey, weirdly enough. I realize if someone
18 said, Well, GE is going to do this, that would maybe sound
19 crazy. But Johnson Matthey has a weird history in the
20 LENR field. They have been involved through supplying of
21 materials and kind of a -- if you do a little bit of
22 research on it, they are not -- they do appear to have at
23 least some tangential interest in the LENR field. So it
24 wasn't totally absurd that, of all the companies out
25 there, Johnson Matthey might actually be willing to test a

1 MR. BELL: Objection to form.

2 THE WITNESS: I think Tom was saying that the
3 core issue was the state of the art, does it work and
4 to what degree? He is getting more particular that
5 -- one and two are more particular. Who is the
6 customer? And then how much steam or presumably
7 energy is being supplied? But I believe the core
8 issue he is referencing is, does it work and to what
9 degree?

10 BY MR. CHAIKEN:

11 Q. Did Industrial Heat ever tell any of its
12 investors or partners that the customer in the group that
13 Leonardo had or Industrial Heat had was, in fact, an
14 affiliate of Johnson Matthey?

15 A. I am not sure. We may have. Just because, you
16 know, that's what we were led to believe. But I'm not
17 sure.

18 Q. Did the tests done in Florida begin in around
19 February 2015?

20 A. Yes.

21 Q. Now, when the test was running, did anyone from
22 Industrial Heat ever express anything other than positive
23 feedback to Dr. Rossi regarding that test?

24 MR. BELL: Can I have the question read back,
25 please?

1 explain the visit, which would have involved feedback
2 and you didn't let him finish.

3 BY MR. CHAIKEN:

4 Q. I will restate my question. Did anyone from
5 Industrial Heat ever express negative feedback to
6 Dr. Rossi from February 2015 to November 2015?

7 A. I would have to go back review the
8 communication between, for example, did T. Barker say
9 anything after his visit? I'm not sure. By and large,
10 our protocol at that time was to allow him to continue to
11 operate the technology to see if we could learn more about
12 his performance before being confrontational.

13 Joe Murray and I tried to go down there in
14 July of '15 and were barred from doing so, Joe was.
15 Presumably, because he is engineer with a skill set
16 necessary to determine exactly what is going on.

17 Q. Did Industrial Heat ever bring potential
18 investors to the facility in Doral?

19 A. As I mentioned before, we took Paul Lamacraft
20 there prior to Woodford's investment. So you could have
21 considered him a potential investor at that point. That
22 visit was very eye-opening.

23 Q. I am not asking you about what happened at the
24 visit; I am just asking if you brought them.

25 A. Sure.

1 Q. Did you bring any other investors?

2 A. I did not bring any others. I believe there
3 was a visit by Tom with others from China. And whether or
4 not those were prospective investors or not, I'm not sure.

5 Q. Why did Industrial Heat bring investors to the
6 facility in Doral?

7 A. One, I am not certain, other than Paul
8 Lamacraft, right, that we did. Two, it would have been,
9 if Tom did, and I'm not sure if he did or not, then it
10 would have been to say, Well, you know, this is one of X
11 number of things we have going on in the LENR world, and
12 who knows whether or not this will pan out.

13 (Exhibit 39, Industrial Heat's Supplement to
14 Defendant Industrial Heat, LLC's Amended Responses
15 and Objections to Plaintiff Andrea Rossi's First Set
16 of Interrogatories, was marked for Identification.)

17 BY MR. CHAIKEN:

18 Q. I will mark this one as Exhibit 39. Let me
19 show you what has been marked as Exhibit 39.

20 A. Thanks.

21 Q. Exhibit 39 are Industrial Heat's Supplement to
22 Defendant Industrial Heat, LLC's Amended Responses and
23 Objections to Plaintiff Andrea Rossi's First Set of
24 Interrogatories. That is a hell of a title.

25 Have you seen -- let me say it this way. I

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "Agreement"), is made and entered into as of October 26th, 2012 by and among LEONARDO CORPORATION, a New Hampshire Corporation ("Leonardo"), ANDREA ROSSI ("Rossi"), AMPENERGO, INC., an Ohio corporation ("AEG"), and INDUSTRIAL HEAT, LLC, a Delaware limited liability company (the "Company"). Each of Leonardo, Rossi, AEG and the Company are referred to herein as a "Party" and collectively as the "Parties."

WHEREAS, Leonardo and/or Rossi are the sole owners of the patents, designs, trade secrets, technology, know-how (including all the knowledge necessary to produce thermal energy by means of apparatuses derived from the technology), products and business plans and all other intellectual property related directly or indirectly to energy production and conversion technologies and to the development, manufacture and sale of products using such technologies, including the Energy Catalyzer ("E-Cat") the catalyzer formula used to fuel the E-Cat, the "Hot Cat" and related energy production and conversion technologies (collectively, the "E-Cat IP"), and Leonardo is the producer of certain components of such systems (the "E-Cat Products"), as to which all such E-Cat IP and E-Cat Products, including, without limitation, the 1 MW E-Cat Product and the Hot Cat, are described in further detail on Exhibit A hereof, and

WHEREAS, Leonardo, Rossi and AEG entered into an agreement dated April 7, 2011, a copy of which is attached hereto as Exhibit B (the "AEG Agreement"), pursuant to which Leonardo and Rossi agreed to grant to AEG the exclusive right to "commercially market, sell the ECAT Technologies and License of manufacturing in the Americas" for the term set forth therein, and

WHEREAS, Leonardo, Rossi and AEG desire to grant to the Company an exclusive license to utilize the E-Cat IP and to manufacture and sell the E-Cat Products in the Territory as set forth herein, and

WHEREAS, Leonardo and Rossi desire to grant to the Company a right of first offer to acquire any license for E-Cat IP and E-Cat Products outside the Territory that Leonardo or Rossi may elect to offer, subject to certain terms and conditions, should Leonardo and/or Rossi decide to sell any such assets;

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Grant of License and Sale of 1MW E-CAT Unit

Subject to the terms and conditions of this Agreement, Leonardo and Rossi hereby grant to the Company the exclusive right and license under the Patents and other E-Cat IP to develop, manufacture, make, have made, use, have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all the products deriving from the E-Cat IP in the Territory (the "License"). The License specifically does not include any military applications in Italy. Leonardo and Rossi further grant to the Company the right to grant sublicenses of any of its rights under this Agreement. The

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granting of sublicenses shall be at the Company's sole and exclusive discretion and the Company shall have the sole and exclusive power to determine the identity of any sublicensee, the applicable license fees or royalty rates, if any, and other terms and conditions of the sublicense.

1.1 This Agreement shall commence as of the date hereof and, unless earlier terminated in accordance with the terms hereof, will remain in effect for the period of the License. The License shall commence on the date provided in Section 3.2(b) below and shall remain in force for the following term:

- as for the Licensed Patents, on a country-by-country basis until the expiration of the last Valid Claim to expire of the Licensed Patent covering such country; and
- as for all other E-Cat IP, the duration will be unlimited.

1.2 On the terms set forth herein, Leonardo will manufacture and sell and deliver to the Company a 1MW E-CAT Unit, or at the election of the Company, a "Hot Cat" Unit, each as described in Exhibit C (such unit as is elected by the Company is hereafter referred to as the "Plant").

1.3 At the expiration of the last patent to expire under the Licensed Patents in any country in the Territory, provided the Company is not at that time in breach of this Agreement, the Company shall continue to have a completely paid-up, royalty-free right and license to subsequently develop, manufacture, make, have made, use, have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all the products deriving from the E-Cat IP in that country.

2. Territory

This License is valid for the following territories (the "Territory"):

- North America, Central America and Caribbean, South America
- China
- Russia
- Saudi Arabia
- Arabian Emirates

3. Price and Payments

3.1 The total price for the grant of the License and the purchase of the Plant is One Hundred Million Five Hundred Thousand Dollars (\$100,500,000).

3.2 The payment terms will be as follows:

- (a) Upon execution of this Agreement, the Company will pay to Leonardo One Million Five Hundred Thousand Dollars (\$1,500,000), which amount shall be deemed to include payment in full for the Plant. In the event the Plant is not delivered or Validation is not achieved within the time period set forth in Section 4, the full \$1,500,000 will be refunded to the Company within two business days of its request. A refund of the \$1,500,000 will not be provided for any other reason and no other refund will be provided for any reason. In the event the \$1,500,000 is refunded, the Plant will remain the property of Leonardo. The Plant must be

available for Validation and delivery within ~~120 Business Days~~ following the date of this Agreement and will be delivered to the location specified by the Company, at Leonardo's expense, within thirty Business Days following Validation. Concurrently with delivery of the Plant, Leonardo will execute and deliver a customary bill of sale providing for a lien free sale and transfer of the Plant to the Company.

- (b) Provided that such date is at least ~~120 Business Days~~ following the date of this Agreement (unless otherwise agreed by the Company), within five Business Days following (a) notification to the Company that the Plant is complete and ready for Validation, and (b) satisfaction of the Conditions Precedent, the Company will deliver Ten Million Dollars (\$10,000,000) to TD Bank, at its office in Miami Beach, Florida, USA (or another bank agreed upon by Leonardo and the Company), to be held in escrow pursuant to an escrow agreement acceptable to Leonardo and the Company. Such escrow agent (the "Escrow Agent") shall pay the \$10,000,000 to Leonardo immediately after (i) Validation is achieved as p Section 4 hereof, and (ii) the E-Cat IP has been validated and is an immediate delivery to the Company in accordance with the procedures in Schedule 3.2(b) attached hereto. The escrow agreement will include provisions authorizing such payment in compliance with the preceding. On the date the Escrow Agent pays the \$10,000,000 to Leonardo, the L commence and Leonardo and Rossi will immediately transfer, and the Agent (as defined in Schedule 3.2(b)) will deliver, to the Company all E Validation is not achieved within the time period set forth in Section 4 or the E-Cat IP is not validated in accordance with the procedure set forth on Schedule 3.2(b), the Company may instruct the Escrow Agent to return the \$10,000,000 to the Company and may terminate this Agreement and be released from any liability hereunder.
- (c) Within five business days following 350 days of operation of the Plant during which the Guaranteed Performance has been achieved as required by Section 5 below, the Company will pay to Leonardo Eighty Nine Million Dollars (\$89,000,000); provided, however, that if, prior thereto (i) any Person has entered the market with a product that infringes the E-Cat IP, or (ii) any product of the Company that utilizes the E-Cat IP infringes the patent or other intellectual property rights of any third-party, at the election of the Company, the Company will pay to Leonardo, in lieu of the foregoing \$89,000,000 payment, within five business days following 350 days of operation of the Plant during which the Guaranteed Performance has been achieved as required by Section 5 below, Forty-four Million Five Hundred Thousand Dollars (\$44,500,000) and Leonardo will be entitled to receive a five percent (5%) royalty on net sales by the Company of E-Cat Products or energy produced by E-Cat Products, payable annually on each January 31 with respect to the previous 12 months ended December 31, until aggregate compensation paid to Leonardo pursuant to this Agreement equals \$1 billion. Any royalty payments made in accordance with the foregoing sentence will be accompanied by supporting financial information generated by the Company in the ordinary course of its business.
- (d) All payments due hereunder shall be made in immediately available funds in accordance with wire transfer instructions to be provided by the party entitled to receive payment.

4. Validation of the Plant

Retention by Leonardo of the \$1,500,000 component of the purchase price and payment of the \$10,000,000 described in Section 3.2(b) above are subject to successful Validation of the Plant. The Validation will be made in the factory of Leonardo within 120 Business Days following the date of this Agreement on a date mutually agreed to by the Company and Leonardo. "Validation" will be deemed successful and achieved when the expert responsible for such validation (ERV) certifies in writing that during a 24 hour test period the Plant consistently produces energy that is at least six times greater than the energy consumed by the Plant (the "Energy Multiple") and the temperature of the steam produced by the Plant is consistently 100 degrees Celsius or greater. To make this measurement the ERV will measure the flow of the heated fluid and the Delta T between the temperature of the fluid before and after the E-CAT reaction. The ERV will be chosen by mutual agreement between Leonardo and the Company and Leonardo and the Company shall bear the ERV's costs fifty-fifty. At their respective elections, the Company and Leonardo may have representatives present to observe the Validation process and discuss the testing and its results with the ERV.

5. Guaranteed Performance.

Payment of the amount set forth in Section 3(c) above is contingent upon the Plant operating at the same level (or better) at which Validation was achieved for a period of 350 days (even if not consecutive) within a 400 day period commencing on the date immediately following delivery of the Plant to the Company ("Guaranteed Performance"). Each of Leonardo and Rossi will use their commercially reasonably best efforts to cause Guaranteed Performance to be achieved, including making repairs, adjustments and alterations to the Plant as needed to achieve Guaranteed Performance. The ERV (or another party acceptable to the Company and Leonardo) will be engaged to confirm in writing the Guaranteed Performance. Guaranteed Performance will not be deemed achieved unless such written confirmation is received or waived by the Company. In the event Guaranteed Performance is not achieved within the time period set forth in this Section (as such time period may be extended by the Company in its sole discretion), but the ERV confirms that during such time period the Plant consistently produced energy that is at least four times greater than the energy consumed by the Plant and that the temperature of the steam produced by the Plant was consistently 100 degrees Celsius or greater, then the amount payable by the Company pursuant to Section 3(c) above shall be reduced in proportion to the reduction in the Energy Multiple, and the total purchase price set forth in Section 3.1 shall be reduced accordingly. If neither the foregoing standard nor Guaranteed Performance is achieved, the Company shall not be required to pay any amount pursuant to Section 3(c) above and the total purchase price set forth in Section 3.1 shall be reduced accordingly.

6. Conditions Precedent

The Company's obligation to pay the \$10,000,000 described in Section 3.2(b) above is subject to satisfaction of the following conditions (the "Conditions Precedent") as determined by the Company based upon commercially reasonable standards, or the waiver of any one or more of such conditions by the Company in its sole discretion:

- (a) Receipt of evidence that all E-Cat IP is owned by Leonardo and/or Rossi.

- (b) Receipt of evidence of the corporate authority of Leonardo to enter into this Agreement and perform its obligations hereunder.
- (c) Confirmation that the representations and warranties of Leonardo and Rossi set forth herein are true and correct.
- (d) All representations and warranties of Leonardo and Rossi shall be true and correct as if made on and as of the date of payment of the \$10,000,000 and Leonardo and Rossi shall have delivered to the Company written certification that the representations and warranties of Leonardo and Rossi set forth herein are true and correct as of the date payment is made.

Leonardo and Rossi agree to provide the Company with such information and documentation as it may reasonably request to satisfy the Conditions Precedent. In the event the Conditions Precedent are not satisfied on or prior to the date that is 60 Business Days following the date of this Agreement, the Company will be entitled to suspend its obligations hereunder until such Conditions Precedent are satisfied or waived by the Company or to terminate this Agreement and be released from any liability hereunder; provided, however, that if the Condition Precedent set forth in Section 6(e) above is not satisfied within such 60 Business Day period, the Company will either waive the condition and proceed as otherwise set forth herein or terminate this Agreement.

7. Patent Prosecution and Maintenance

7.1 For each patent application and patent under the Licensed Patents, Leonardo shall:

- (a) prepare, file and prosecute such patent application;
- (b) maintain such patent;
- (c) pay all fees and expenses associated with its activities pursuant to Sections 7.1(a) and (b) above;
- (d) keep the Company currently informed of the filing and progress in all material aspects of the prosecution of such patent application, and the issuance of patents from any such patent application;
- (e) consult with the Company concerning any decisions which could affect the scope or enforcement of any issued claims or the potential abandonment of such patent application or patent; and
- (f) notify the Company in writing of any additions, deletions or changes in the status of such patent or patent application.

The Company, at its election and at its expense, may participate in patent prosecution and maintenance as set forth above to the extent it deems necessary or desirable.

7.2 If Leonardo wishes to abandon any patent application or patent that is a Licensed Patent, it shall give the Company ninety (90) days prior written notice of the desired abandonment. Leonardo shall not abandon any such Licensed Patent except upon the prior written consent of the Company. On the Company's request, which may be provided at any time after the notice of desired abandonment, Leonardo shall assign to the Company any such patent application and patent Leonardo wishes to abandon.

Effective as of the effective date of such assignment, such patent application and patent shall no longer be a Licensed Patent.

8. Third-Party Infringement.

8.1 A Party receiving notice of alleged infringement of any Licensed Patent in the Territory, or having a declaratory judgment action alleging invalidity or noninfringement of any Licensed Patent in the Territory brought against it, shall promptly provide written notice to the other Parties of the alleged infringement or declaratory judgment action, as applicable.

8.2 Leonardo shall bring suit or defend a declaratory judgment action and control the conduct thereof, including settlement, to stop infringement of any Licensed Patent; provided, however, that Leonardo shall only be required to take such action after (i) notification from the Company advising that it believes such action to be necessary or advisable, and (ii) only as and to the extent deemed to be appropriate by an independent patent attorney selected by Leonardo. Leonardo may force the Company to become a party to the suit or action only if a court of competent jurisdiction determines the Company is an indispensable party to the suit. Leonardo shall (a) hold the Company free, clear and harmless from any and all costs and expenses of the suit, including reasonable attorneys' fees, and (b) compensate the Company for the reasonable time and expenses of the Company's employees for any required assistance or testimony of the Company's members, managers, officers, and employees in connection with the suit. The Company may voluntarily initiate or participate in any suit or defense of a declaratory judgment at the Company's election and at its expense as the Company may deem appropriate to enforce or protect its rights or interests under this Agreement.

9. **Regulatory Clearance.** Leonardo, Rossi, and AEG, each to the extent requested by the Company, shall reasonably cooperate with the Company in obtaining any clearances or licenses from governmental agencies or regulatory authorities to own, possess, make, operate, sell, or export the E-Cat IP or the E-Cat Products.

10. **Recordation of License.** Upon the request of the Company, Leonardo and Rossi shall assign to the Company the Licensed Patents with respect to the Territory or, if so requested by the Company, record this Agreement (or a memorandum hereof, or similar document) as permitted or required by the laws of countries in the Territory, and any recordation fees and related costs and expenses shall be paid by Company.

11. Mutual Representations and Warranties.

Each Party hereby represents and warrants to the other party that:

- (a) it is duly organized, validly existing and in good standing as a corporation or other entity as represented herein under the laws and regulations of its jurisdiction of incorporation or organization;
- (b) it has, and throughout the term of the License shall retain, the full right, power and authority to enter into this Agreement and to perform its obligations hereunder;

- (c) the execution of this Agreement by its representative whose signature is set forth at the end hereof has been duly authorized by all necessary corporate or limited liability company action of the Party; and
- (d) when executed and delivered by such Party, this Agreement shall constitute the legal, valid and binding obligation of that Party, enforceable in accordance with its terms.

12. Representations and Warranties of Leonardo and Rossi.

Leonardo and Rossi, jointly and severally, each hereby represents and warrants to the Company that:

- (a) Leonardo and/or Rossi are the sole and exclusive legal and beneficial owners of the entire right, title, and interest in and to the E-Cat IP and are the record owners of all patent applications and issued patents that are Licensed Patents, have good and valid record and marketable title to the E-Cat IP, have not licensed the E-Cat IP to any other party and are under no express or implied obligation to any third party that would restrict, limit, or in any manner effect the ability to license the rights to the E-Cat IP, and have and throughout the Term will retain the full, unconditional and irrevocable right, power and authority to license the E-Cat IP as provided herein, free and clear of any Liens.
- (b) The patents and patent applications identified on Exhibit A and all other E-Cat IP, all of which is to be delivered to the Company in accordance with Section 3.2(b), are owned by Leonardo and/or Rossi and are all the patents and patent applications and other intellectual property that are necessary or useful for the Company to develop, manufacture, make, have made, use, have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all the products deriving from the E-Cat IP in the Territory.
- (c) A list of all agreements in any way related to the E-Cat IP or the E-Cat Products, including any and all sales or licensing agreements, is set forth on Exhibit D attached hereto. Complete copies of all such agreements have been delivered to the Company.
- (d) Neither Leonardo nor Rossi has granted, and neither of them will grant, any licenses or other contingent or non-contingent right, title or interest under or relating to the Licensed Patents or other E-Cat IP, including any such license, right, title or interest that permits or would permit any party to manufacture, sell, or distribute E-Cat Products in the Territory or use the E-Cat IP in the Territory, or is or will be under any obligation, that does or will conflict with or otherwise affect this Agreement, including any of Leonardo or Rossi's representations, warranties or obligations hereunder or the Company's rights or license hereunder. The Company is aware of the AEG Agreement.
- (e) There neither are, nor at any time during the term of the License will be, any encumbrances, liens or security interests created or permitted by Leonardo or Rossi involving any Licensed Patents or the other E-Cat IP.

- (f) The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby does not (i) result in the imposition of any Lien under, cause the acceleration of any obligation under, or violate or conflict with the terms, conditions or provisions of any contracts or other agreements to which Leonardo or Rossi is a party or by which either of them is bound, (ii) result in a breach or violation as of the date of this Agreement by Leonardo or Rossi of any of the terms, conditions or provisions of any Law or Order, or (iii) require the provision of any payment or other consideration to any third party by Leonardo or Rossi, other than pursuant to the AEG Agreement.
- (g) To the knowledge of Leonardo and Rossi, none of the E-Cat IP infringes upon the rights of any other Person nor has the E-Cat IP been infringed upon by any other Person and there is no prior art or other information that would adversely affect the validity, enforceability, term or scope of any Licensed Patent. All rights in the E-Cat IP are valid and in full force and effect and no approval or consent of any Person is needed for the interest of the Company in the rights in the E-Cat IP to continue to be in full force and effect following the date hereof and the transactions contemplated by this Agreement. Leonardo has not taken any action or omitted to take any action which would adversely affect the validity of the rights in the E-Cat IP.
- (h) The AEG Agreement does not in any way restrict or inhibit the ability of Leonardo to grant the License as provided herein.
- (i) There is no Action or Proceeding or Order pending or, to the knowledge of Leonardo or Rossi, threatened against Leonardo or Rossi which relates to or could impact the E-Cat IP, or to which Leonardo or Rossi is subject or by which any of their assets are bound. There is no settled, pending or threatened litigation or re-examination, post-grant or *inter partes* review, interference, derivation, opposition, claim of invalidity or other claim or proceeding (including in the form of any offer to obtain a license): (i) alleging the invalidity, misuse, unregistrability, unenforceability or noninfringement of any Licensed Patent; (ii) challenging the ownership of, or right to practice or license, any Licensed Patent, or alleging any right, title or interest with respect thereto; or (iii) alleging that the practice of any Licensed Patent or the making, using, offering to sell, sale or importation of any E-Cat Product in the Territory does or would infringe, misappropriate or otherwise violate any patent, trade secret or other intellectual property of any third party. Neither Leonardo nor Rossi has any knowledge, after reasonable investigation, of any factual, legal or other reasonable basis for any litigation, claim or proceeding described in this paragraph.
- (j) Each of Leonardo and Rossi has filed within the time prescribed by law or regulations all tax returns or reports, and has paid all taxes required by any jurisdiction or subdivision or agency thereof, in each case attributable to periods on or prior to the execution of this Agreement, with respect to and to the extent of its ownership and/or use of the E-Cat IP.

- (k) Leonardo is not in violation of any Law or Order to which the E-Cat IP is subject.
- (l) The cost to produce the Plant that will be delivered to the Company pursuant to this Agreement, assuming high scale production volumes, will not exceed \$100/kW and the maximum cost to fuel the Plant on the date hereof is \$10 per 10kW of output.
- (m) All of the books and records and other documents to be delivered to the Company pursuant to this Agreement will be true, correct and complete in all material respects.
- (n) None of Leonardo, Rossi or any other shareholder, director, officer or employee of Leonardo (i) is a Person appearing on the Specially Designated Nationals and Blocked Persons List of the Office of Foreign Assets Control in the United States Department of the Treasury, (ii) is any other Person with whom a transaction is prohibited by applicable provisions of the USA PATRIOT Act, the Trading with the Enemy Act or the foreign asset control regulations of the United States Treasury Department, in each case as amended and in effect from time to time, (iii) is controlled by any Person described in the foregoing items (i) or (ii), with ownership of 20% or more of outstanding voting securities being presumptively a control position for purposes of this clause, and (iv) has its principal place of business located in any country described in the foregoing item (ii). Further, neither Leonardo nor Rossi has entered into any written or oral agreements relating in any way to the E-Cat Products or the E-Cat IP with any Person described in (i), (ii), (iii) or (iv) of the foregoing sentence.

13. Covenants and Agreements.

- 13.1 **Services by Rossi.** In consideration of the payments set forth herein, Rossi will provide ongoing training and support to the Company in the use of the Plant and the production of the E-Cat Products for a period of not less than twelve months following Validation, as and to the extent reasonably requested by the Company to enable it to utilize the E-Cat IP, operate the Plant and produce the E-Cat Products. Further, Rossi and the Company currently contemplate that the Company will engage Rossi as its chief scientist pursuant to a separate agreement to be entered into following Validation, in which event the services contemplated by the preceding sentence will be rendered pursuant to such engagement.
- 13.2 **Right of First Offer.** Leonardo and Rossi each hereby agrees that, should either of them desire at any time to license the E-CAT IP or the manufacture or distribution of E-Cat Products in any territory outside the Territory covered by this Agreement, they will first notify the Company and the Company will have a period of thirty (30) days to make an offer to purchase such license. In the event the Company makes such offer and Leonardo or Rossi does not accept it, Leonardo or Rossi may grant such license to another party only if the price paid by such party is at least 90% of the price offered by the Company and the other terms and conditions of the agreement are no less favorable to

Leonardo or Rossi than the terms proposed by the Company. In the event either of Leonardo or Rossi desires to enter into an agreement that does not satisfy the requirements set forth in the foregoing sentence, they must first offer the same agreement to the Company and the Company will have thirty days to accept or reject it. If the Company rejects it, Leonardo or Rossi may enter into that agreement with another party at any time during the following sixty (60) days, and, if they fail to do so, they must again provide the Company with the right of first offer before entering into a licensing agreement with any other party. Any licensing agreement entered into by Leonardo or Rossi regarding the E-CAT IP or the manufacture or distribution of E-Cat Products must include a provision prohibiting the manufacture, sale or distribution of E-Cat Products, and the use of the E-Cat IP, in the Territory.

- 13.3 **Covenant Not to Compete.** For as long as the Company or any of its subsidiaries is engaged in any business related to the E-Cat Products and Leonardo, Rossi or any Affiliate of Leonardo own any of the Company's equity ownership interests or Leonardo, Rossi or any Affiliate are performing services for the Company or such transferee (whether as an employee, consultant or otherwise and specifically including the period of services required by Section 13.1) and for an additional period of two (2) years after the last of Leonardo, Rossi or such Affiliate shall have ceased to provide such services, none of Leonardo, Rossi or any of their Affiliates will (except as an officer, director, stockholder, employee, agent or consultant of the Company or such subsidiary of the Company) directly or indirectly own, manage, operate, join, or have a financial interest in, control or participate in the ownership, management, operation or control of, or be employed or engaged as an employee, agent or consultant, or in any other individual or representative capacity whatsoever, or use or permit their names to be used in connection with, or be otherwise connected in any manner with any business or enterprise (a) engaged in the design, development, manufacture, distribution, lease, rental or sale of any E-Cat Products, or the provision of any services related thereto or (b) which is competitive with the E-Cat Products, unless Leonardo or such Affiliate shall have obtained the prior written consent of the Company or such subsidiary of the Company, as the case may be. In the event of termination of this Agreement due to a breach by the Company, the Company and all its affiliates, employees, officers, directors, for two (2) years after the period of effectiveness of this agreement, will not be allowed to work for a competitor of Leonardo in the licensing or sale of products competing with the E-Cat Products.

- 13.4 **After Acquired/Developed Assets, Intellectual Property Rights.** Leonardo and Rossi hereby agree that from and after the date hereof, any and all inventions, discoveries, concepts, ideas, information and anything else that Leonardo, Rossi or any of their Affiliates makes or develops which relate to the E-Cat IP or are useful in the business or activities in which the Company is or may become engaged, including without limitation, enhancements, improvements, alternations, additions, deviations, changes, variations, as well as all derivative works based on the E-Cat IP and any item or product embodying the E-Cat IP and all applications, names, titles, characters, symbols, designs, copyrights, patents, trademarks, artwork, and elements

embodied in, derived from or related thereto and any other product, service, presentation, ancillary work or commercial endeavor including, without limitation, as represented in any and all media, and all third-party products using or incorporating the E-Cat IP and all embodiments of the foregoing (collectively, the "After Acquired/Developed Assets") shall be and shall remain within the scope of the definition of E-Cat IP and shall be included in the License. Leonardo and Rossi each hereby agrees to, and agrees to cause its Affiliates to, promptly assign, transfer and convey to Leonardo any and all right, title and interest in and to any such After Acquired/Developed Assets and intellectual property rights therein if such rights are not owned by Leonardo and to execute any and all intellectual property applications and instruments of conveyance and other documents, and to take all other steps necessary to vest Leonardo with the entire right, title and interest in and to the After Acquired/Developed Assets free and clear of all Liens. Further, it is acknowledged and agreed that, from and after the date the License commences, any and all inventions, discoveries, concepts, ideas, information and anything else that the Company, its sublicensees, or any of their affiliates, makes or develops which relate to the E-Cat IP or are useful in the business or activities in which the Company is or may become engaged, including without limitation, enhancements, improvements, alternations, additions, deviations, changes, variations, as well as all derivative works based on the E-Cat IP and any item or product embodying the E-Cat IP and all applications, names, titles, characters, symbols, designs, copyrights, patents, trademarks, artwork, and elements embodied in, derived from or related thereto and any other product, service, presentation, ancillary work or commercial endeavor including, without limitation, as represented in any and all media, and all embodiments of the foregoing shall be and shall remain the property of the Company (or such sublicensee or affiliate if so agreed by the Company).

- 13.5 Tax Matters. The Parties shall file all necessary documentation and returns with respect to any applicable sales, use, transfer, real property transfer, recording, gains, stock transfer and other similar taxes and fees pertaining to the respective revenues derived by the Parties in respect of the E-Cat IP (such taxes and fees, including any interest or penalties thereon, are herein sometimes called "E-Cat Taxes"). The Parties agree to defend and hold harmless each other Party from and against any Governmental or Regulatory Body action against one Party with respect to E-Cat Taxes payable by such Party and arising out of or in connection with the transactions effected pursuant to this Agreement. Each Party further agree to defend and hold harmless each other Party with respect to any additional E-Cat Taxes imposed by reason of any payment made by an indemnifying Party under this Section.

14. Indemnification.

- 15.1 Leonardo and Rossi shall indemnify, defend and hold harmless the Company and its members, managers, officers, directors, employees, agents, successors, assigns, and sublicensees (each, a "Company Indemnatee") against all losses arising out of or resulting from any third party claim, suit, action or proceeding related to, arising out of or resulting from any breach by Leonardo or Rossi of any representation, warranty, covenant or obligation of Leonardo


or Rossi under this Agreement. The Company shall indemnify, defend and hold harmless Leonardo and Rossi, and their respective members, managers, officers, directors, employees, agents, successors, assigns and sublicensees (each a "Leonardo Indemnitee") against all losses arising out of or resulting from any third party claim, suit, action or proceeding related to, arising out of or resulting from any breach by the Company of any representation, warranty, covenant or obligation of the Company under this Agreement.

15.2 [Intentionally omitted]


15.3 The Company Indemnitee or the Leonardo Indemnitee, as the case may be, shall promptly notify in writing each Party responsible for indemnification of any claim subject to indemnification hereunder and cooperate with each indemnifying Party at such indemnifying Party's sole cost and expense. Each Party responsible for indemnification shall immediately take control of the defense and investigation of the claim and shall employ counsel reasonably acceptable to the Company Indemnitee or the Leonardo Indemnitee, as the case may be, to handle the defense of the same, at the sole cost and expense of the indemnifying Party or Parties. An indemnifying Party shall not settle any claim in a manner that adversely affects the rights of the indemnified Party without the indemnified Party's prior written consent, which shall not be unreasonably withheld or delayed. The failure of the Company Indemnitee or the Leonardo Indemnitee, as the case may be, to perform any obligations under this Section 15.3 shall not relieve any indemnifying Party of its obligation under this Section 15.3, except to the extent that the indemnifying Party can demonstrate that it has been materially prejudiced as a result of the failure. The Company Indemnitee or the Leonardo Indemnitee, as the case may be, may participate in and observe any proceedings that are the subject of this paragraph at such Party's own cost and expense with counsel of its choosing.


16. Miscellaneous.

16.1 **Certain Definitions.** As used in this Agreement, the following terms have the following meanings unless the context otherwise requires:

 "**Action or Proceeding**" means any action, suit, proceeding or arbitration by any Person, or any investigation or audit by any Governmental or Regulatory Body.

"**AEG Agreement**" has the meaning set forth in the recitals to this Agreement.

 "**Affiliate**" means with respect to any Person, any other person controlling, controlled by or under common control with such first Person, and with respect to any natural Person, includes such Person's spouse and other relatives by blood or marriage.

 "**Agreement**" means this License Agreement.

"Business Day" means any day other than a day on which commercial banks in New York, New York are authorized or required by law to close.

"Company" has the meaning set forth in the recitals to this Agreement.

"Conditions Precedent" has the meaning set forth in Section 6 of this Agreement.

"E-Cat" has the meaning set forth in the recitals to this Agreement.

"E-Cat IP" has the meaning set forth in the recitals to this Agreement, and shall include all documents, manuals, technical data, formulae, and other items and materials necessary or useful to enable the Company to (i) operate the IMW E-Cat Unit, (ii) make E-Cat Products, and (iii) exploit the E-Cat IP as contemplated by this Agreement.

"E-Cat Products" has the meaning set forth in the recitals to this Agreement.

"Governmental or Regulatory Body" means any court, tribunal, arbitrator or any government or political subdivision thereof, whether federal, state, county, local or foreign, or any agency, authority, official or instrumentality of any such government or political subdivision.

"Law" means any law, statute, rule, regulation, ordinance and other pronouncement having the effect of law of the United States of America, any foreign country or any domestic or foreign state, country, city or other political subdivision or of any Governmental or Regulatory Body.

"Licensed Patents" means the patents, patent applications, and patents pending designated as "Licensed Patents" on Exhibit A attached hereto, all patents issued from such patent applications and all continuations, continuations-in-part, divisions, extensions, substitutions, reissues, re-examinations and renewals of any of the foregoing, and any patents in the Territory issuing from any applications filed after the date of this Agreement that claim priority from any of the patents or patent applications designated as "Licensed Patents" on Exhibit A or from which any of the patents or patent applications designated as "Licensed Patents" on Exhibit A claim priority.

"Lien" means any lien, pledge, hypothecation, mortgage, security interest, claim, lease, charge, option, right of first refusal, easement, servitude, transfer restriction under any instrument, agreement, encumbrance or any other restriction or limitation of any nature or kind whatsoever.

"Order" means any writ, judgment, decree, injunction or similar order of any Governmental or Regulatory Body; in each case whether preliminary or final.

"Person" means any individual, corporation, partnership, firm, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental or Regulatory Body or other entity.

"Plant" has the meaning set forth in Section 1.2 of this Agreement.

"Tax" and "Taxes" means all taxes or other assessments imposed by any federal, state or local taxing authority, including income, excise, property, sales, use, ad valorem, and franchise taxes other than E-Cat Taxes.

"Valid Claim" means, on a country-by-country basis, a claim of an unexpired issued or granted Licensed Patent so long as the claim has not been admitted by Leonardo or otherwise caused to be invalid or unenforceable through reissue, disclaimer or otherwise, or held invalid or unenforceable by a tribunal or governmental agency of competent jurisdiction from whose judgment no appeal is allowed or timely taken.

"Validation" has the meaning set forth in Section 4 of this Agreement.

"Watts", "kW", "MW", "GW": It is intended that in this Agreement Watts are always Thermal Watts, not Electric Watts.

- 16.2 Expenses. Except as otherwise expressly provided herein, whether or not the transactions contemplated by this Agreement shall be consummated, each of the parties hereto shall pay its own expenses (including, without limitation, attorney's and accountants' fees and out-of-pocket expenses) incident to this Agreement and the transactions contemplated hereby.
- 16.3 Notices. All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be given personally, sent by facsimile transmission or sent by prepaid air courier or certified registered mail, postage prepaid. Any such notice shall be deemed to have been given (a) when received, if delivered in person, sent by facsimile transmission and, in the case of facsimile, confirmed in writing within three (3) Business Days thereafter, or sent by prepaid Federal Express or other generally recognized prepaid air courier or (b) three (3) Business Days following the mailing thereof, if mailed by registered or certified first class mail, postage prepaid, return receipt requested, in each such case to the respective address as set forth on the signature page hereto (or to such other address or addresses as a party may have advised the other). A copy of all notices shall also be sent via e-mail, but the failure of any such notice by email to be received shall not affect notice otherwise validly given under this Agreement.
- 16.4 Publicity; Confidentiality. No publicity release or public announcement concerning this Agreement or the transactions contemplated hereby shall be made by Leonardo, Rossi, AEG or the Company without written advance approval thereof by each of Leonardo and the Company. While this Agreement is in effect and after this Agreement terminates, each party hereto and its Affiliates shall keep confidential, and shall not disclose, the terms of this Agreement to any other Person without the prior consent of each other Party hereto unless (i) the disclosure is required by law or legal process (including without limitation the federal securities laws and the rules and regulations of the Securities and Exchange Commission promulgated there

under) or (ii) the disclosure is to any officer, director, employee or agent of any party hereto or of any of its Affiliates and such Person needs to know such information for purposes of consummating the transactions contemplated by or the performance of this Agreement. In the case of press conferences or press releases, Leonardo shall have the right to select or reject certain journalists, who will be a part thereof or who will receive such releases.

During the term of this Agreement, each of Leonardo, Rossi, and AEG agrees to keep the E-Cat IP strictly confidential and not disclose any of the E-Cat IP to any other party; provided, however, that Leonardo and/or Rossi may disclose the E-Cat IP (i) to its employees as necessary in connection with the business of Leonardo and/or Rossi, provided that such business does not violate the provisions of this Agreement and further provided that such employees enter into a confidentiality agreement requiring them to keep the E-Cat IP strictly confidential, and (ii) in connection with any license agreement entered into in accordance with the procedure set forth in Section 13.2 hereof, provided that such disclosure is made only to the extent necessary to permit such licensee to utilize the license granted and such licensee enters into a confidentiality agreement requiring it to keep such E-Cat IP strictly confidential. Any confidentiality agreement entered into with an employee or licensee as contemplated in the preceding sentence shall include a provision stating that the Company is a third party beneficiary of such confidentiality agreement and may enforce the terms thereof. Each of Leonardo, Rossi, and AEG acknowledges that unauthorized use or disclosure of the E-Cat IP may result in irreparable damage to the Company. Accordingly, the Parties agree that injunctive relief shall be an appropriate remedy in the event of any breach or threatened breach of this paragraph, in addition to money damages or such other remedies as may be available with respect to such breach or threatened breach.

- 16.5 **Bankruptcy.** All rights and licenses granted under this Agreement are and shall be deemed to be "embodiment(s)" of "intellectual property" for purposes of, and as such terms are used in and interpreted under, Section 365(n) of the United States Bankruptcy Code (the "Bankruptcy Code"). The Company shall have the right to exercise all rights and elections with respect to the E-Cat IP and all E-Cat Products. Without limiting the generality of the foregoing, each of Leonardo and Rossi acknowledges and agrees that, if Leonardo or Rossi (or Rossi's estate) shall become subject to any bankruptcy or similar proceeding: (a) subject to the Company's rights of election, all rights and licenses granted to the Company hereunder will continue subject to the terms and conditions of this Agreement, and will not be affected, even by Leonardo's or Rossi's rejection of this Agreement, and (b) the Company shall be entitled to a complete duplicate of (or complete access to, as appropriate) all such intellectual property and embodiments of intellectual property comprising or relating to any E-Cat IP or E-Cat Products, and the same, if not already in the Company's possession, shall be promptly delivered to the Company, unless Leonardo elects to and does in fact continue to perform all of its obligations under this Agreement.

- 16.6 AEG. By joining into this Agreement as a Party, AEG acknowledges the terms of this Agreement, agrees that this Agreement does not violate the provisions of the AEG Agreement, agrees that the rights granted to AEG under the AEG Agreement do not and will not infringe upon or interfere with the License, agrees to indemnify and hold harmless the Company from and against any claim or dispute arising between AEG and Leonardo or Rossi in connection with the AEG Agreement or otherwise, and agrees to indemnify Leonardo and Rossi from and against any claim or dispute arising between AEG and the Company in connection with this Agreement or otherwise. All Parties hereby acknowledge and agree that the payments due to AEG pursuant to the AEG Agreement with respect to this Agreement will be made directly by the Company to AEG pursuant to a separate agreement to be entered into between AEG and the Company. The amounts payable to Leonardo hereunder reflect the fact that Leonardo will not make any payments to AEG under the AEG Agreement. AEG further acknowledges that upon execution of this Agreement and compliance by the Company with the provisions set forth herein, AEG will have no further rights under the AEG Agreement to market or sell the E-Cat IP or the license to manufacture of the E-Cat Products; provided, however, that in the event this Agreement is terminated by the Company for any reason or by Leonardo or Rossi due to the Company's failure to comply with the provisions of this Agreement, the AEG Agreement will be deemed reinstated in full and shall thereafter remain in full force and effect in accordance with its terms, except that no amount shall be payable under the AEG Agreement by Leonardo with respect to this Agreement.
- 16.7 Assignment. Other than the Company's right to sublicense as provided in Section 1, neither Leonardo nor Rossi, nor the Company, shall assign or otherwise transfer any of its rights, or delegate or otherwise transfer any of its obligations or performance under this Agreement, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the other party's prior written consent. No delegation or other transfer will relieve Leonardo or Rossi or the Company of any of their obligations or performance under this Agreement. Any purported assignment, delegation or transfer in violation of this Section 16.7 is void. This Agreement is binding upon and inures to the benefit of the Parties and their respective permitted successors and assigns.
- 16.8 Entire Agreement. This Agreement (including the Exhibits and Schedules hereto) and the other agreements, certificates and documents specifically incorporated herein by reference thereto, or delivered pursuant to this Agreement contain the entire agreement among the parties with respect to the transactions described herein, and supersede all prior agreements, written or oral, with respect thereto.
- 16.9 Waivers and Amendments. This Agreement may be amended, superseded, canceled, renewed or extended, and the terms hereof may be waived, only by a written instrument signed by the Parties or, in the case of a waiver, by the Party waiving compliance. No delay on the part of any Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof.

- 16.10 **Governing Law and Dispute Resolution.** This Agreement shall be construed and enforced under the laws of the State of Florida without regard to the conflicts of law principles thereof that would defer to or result in the application of the substantive laws of another jurisdiction. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled exclusively by the Court of Miami, Florida, USA.
- 16.11 **Force Majeure.** Neither Party shall be liable for any delay in the performance of its obligations hereunder to the extent such delay is due to events beyond its reasonable control including without limitation, acts of God, fire, flood or other natural catastrophe, acts of any government in its sovereign capacity (including but not limited to any rule, law, order, regulation or direction thereof, or of any department, agency or commission thereof), national emergencies, insurrections, riots, war or hostile activities, quarantine restrictions, embargoes, launch failures, strikes, lockouts, work stoppages or other labor difficulties and sun eclipse or solar outages; provided, that notice thereof is given to the other Party within thirty (30) days of the later to occur of such event and the date that the Party being affected by such event obtains actual knowledge of such event.
- 16.12 **Further Assurances.** Each Party shall do and execute, or arrange for the doing and executing of, each necessary act, document and thing to implement this Agreement.
- 16.13 **Variations in Pronouns.** All pronouns and any variations thereof refer to the masculine, feminine or neuter, singular or plural, as the context may require.
- 16.14 **Headings, References.** The headings in this Agreement are for reference only, and shall not affect the interpretation of this Agreement. All references herein to Sections, subsections, clauses, Exhibits, and Schedules shall be deemed references to such parts of this Agreement, unless the context shall otherwise require.
- 16.15 **Exhibits and Schedules.** The following Exhibits and Schedules are attached to this Agreement and incorporated herein:

Exhibit A	Description of E-Cat IP, including Licensed Patents
Exhibit B	AEG Agreement
Exhibit C	Description of the the 1 MW E-CAT Unit and the "Hot Cat" Unit
Exhibit D	List of agreements related to E-Cat IP or E-Cat Products
Schedule 3.2(b)	Procedures for validation of E-Cat IP

IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby,
have duly executed this License Agreement on the date first above written.

INDUSTRIAL HEAT, LLC

By: Thomas F. Earden, manager
Name: THOMAS F. EARDEN
Title: MANAGER
Address for Notices:
111 East Hargett Street, Ste 300
Raleigh, NC 27601
Email:

LEONARDO CORPORATION

By: Andrea Rossi
Name: ROSSI, ANDREA
Title: PRESIDENT
Address for Notices:
Andrea Rossi
1331 Lincoln RD., APT 601
Miami Beach FL 33139
Email: eon333@libero.it

ROSSI

Andrea Rossi
Name: ANDREA ROSSI
Address for Notices:
1331 Lincoln RD., APT 601
Miami Beach FL 33139
Email: eon333@libero.it

AEG:

AmpEnergio, Inc.

By: Karl Norwood
Name: KARL NORWOOD
Title: member
Address for Notices:
4110 Sunset Boulevard
Steubenville, Ohio 43952
Email: crgcassarino67@gmail.com

EXHIBIT A

Description of E-Cat IP, including Licensed Patents

See attached.



Handwritten initials or signature, possibly "R" and "TRO".

Handwritten initials or signature, possibly "V" and a circled "K".

EXHIBIT A

Description of the IP:

The IP is constituted by a volume in which are explained all the constructive drawings, with the dimensions and the characteristics of the materials, along with the instructions necessary to:

- 1- Manufacture the E-Cats
- 2- Operate the E-Cats
- 3- Manufacture the control systems
- 4- Operate the control systems

The IP will also contain 9 patents: *(the "Licensed Patents")*

- 1- Italian patent granted for process and apparatus
- 2- USA patent pending for process and apparatus
- 3- Europe patent pending for process and apparatus
- 4- USA patent pending for particulars and theory
- 5- USA patent pending for control systems
- 6- USA patent pending for additives and catalyzers in process and apparatus
- 7- USA patent pending for Hot Cat
- 8- USA patent pending for direct conversion of photons into electric energy
- 9- USA patent pending for particulars of the reactor

TRD

CHD

JP

EXHIBIT B

AEG Agreement

See attached.

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AGREEMENT

THIS AGREEMENT made and entered into this 7 day of April, 2011, by and among LEONARDO CORPORATION ("LC"), a New Hampshire corporation, and DR. ANDREA ROSSI ("Rossi"), and AMPENERGO, INC. ("AEG"), an Ohio corporation.,

W-I-T-N-E-S-S-E-T-H:

LC is the holder and sole owner of all intellectual property rights (the "IP Rights") related to a certain technology (the "ECAT Technology"), which concerns an invention that permits the economic and advantageous production, in a safe, reliable and repetitive way, of energy from nuclear reactions between hydrogen and inert metals. The technology is described in International Patent Application number W02009/125444A1 filed in Italy on April 9, 2008 by Rossi as file number PCT/IT2008/000532. In addition to the Patent Application, Rossi has also prepared and filed a separate document (the "Document") with an Italian Attorney Study, which sets forth the know how, technology and methodology relating to the ECAT Technology.

AEG and its individual shareholders, directors and officers have extensive experience in the energy sector and in developing and commercializing energy technologies.

LC and Rossi desire AEG to commercially market and exploit the ECAT Technology in North America, Central America, South America and the Caribbean (the "Americas") and AEG desires to assist LC and Rossi with the commercialization, exploitation and marketing of the ECAT Technology in the Americas.

NOW THEREFORE, in consideration of the mutual covenants and agreements as hereinafter set forth by the parties to be kept, observed and performed, the parties hereto covenant and agree as follows:

1. RECITALS/EXHIBITS

The foregoing recitals, as well as, all exhibits and schedules that are attached to this Agreement are hereby included in and are made a part of this Agreement.

2. GRANT OF EXCLUSIVE RIGHTS

A. In consideration of the sum of Fifty Thousand US Dollars (US \$50,000.00) paid by AEG to LC, the receipt and sufficiency of which is hereby acknowledged by LC, LC and Rossi grant to AEG the exclusive right to commercially market, sell the ECAT Technologies and Licence of manufacturing in the Americas for the Initial Term and the Extended Term as hereinafter provided. The consideration of Fifty Thousand US Dollars (US \$50,000.00) paid by AEG to LC for the exclusive rights as herein granted shall be

subject to reimbursement in accordance with the provisions as hereinafter provided in paragraph 6(A) of this Agreement.

B. LC and Rossi, jointly and severally, shall be responsible for obtaining, maintaining and defending all IP Rights relating to the ECAT Technology and shall indemnify and hold harmless AEG and all shareholders, directors and officers of AEG relating in any manner to the IP Rights for the ECAT Technology.

C. LC and Rossi, jointly and severally, represent, warrant and guarantee to AEG that the rights as herein granted by LC and Rossi to AEG to commercially market, exploit, develop, research, sell, license and otherwise utilize the ECAT Technology in the Americas are in no way in conflict with any rights that LC and/or Rossi may have granted to any other party or parties and that such rights have been exclusively granted to AEG.

D. AEG is aware that the patent of LC and Rossi is still in the phase of "Patent Pending" and that LC and Rossi cannot guarantee that the patent will be granted. In case the patent will not be granted this Agreement will remain valid, and will be based on the same technology and know how.

3. TERM

A. The Initial Term of this Agreement shall be for a period of two (2) years commencing on the date that LC first provides AEG with the necessary and essential test information (the "Test Information") for AEG to commercially market and exploit the ECAT Technology in the Americas. The parties acknowledge that LC will supply the Test Information to AEG based on data from the Greek-based one (1) megawatt installation that LC is in the process of developing, constructing and installing with certain other third parties or from such other independent tests that LC may be able to perform for another third party customer of the ECAT Technology.

B. The Initial two (2) year Term of the grant of exclusive rights by LC to AEG shall be extended for an additional term of eighteen (18) years (the "Extended Term") following the expiration of the Initial Term upon AEG achieving on or before the expiration of the Initial Term of this Agreement total gross receipts of a minimum of Fifteen Million US Dollars (US \$15,000,000.00) from the sale and/or licensing of the ECAT Technology.

4. TRADE SECRETS/CONFIDENTIAL INFORMATION

LC shall hold all information related to the fabrication, design, charge composition, catalysts, additives and technical operation relating to the ECAT Technology as Confidential Information and/or as a Trade Secret. LC shall provide AEG with all information as may be reasonably necessary and essential to enable AEG to properly and effectively market and exploit the ECAT Technology on a commercial basis, including, but not limited to, all necessary performance and test data relating to the capabilities, outputs, applications and configurations of the ECAT Technology. AEG shall cooperate

with LC to retain the confidentiality of all such Confidential Information and Trade Secret Information, except that with the approval of LC, all or certain portions of such Confidential Information and Trade Secret Information may be shared with potential customers deemed to be able to purchase or license the ECAT Technology. Such potential customers must have signed a confidentiality and exclusivity agreement acceptable to both LC and AEG prior to disclosure of such information. LC acknowledges that the disclosure of relevant test information and basic functional data relative to the ECAT Technology is essential for the proper marketing and exploitation of the ECAT Technology on a commercial basis, even if LC and Rossi will maintain secret the data that they will deem secret.

5. GOALS AND OBJECTIVES

A. LC represents that it has manufactured or has the means to manufacture an energy catalyzer (the "Catalyzer"). The Catalyzer is a device comprised primarily of a reactor vessel and a control system, which together permit the economic and advantageous production in a safe, reliable and repetitive way, of energy from nuclear reactions between hydrogen and certain inert metals as more fully described in the Patent Application filed by Rossi and the Document filed by Rossi with the Italian Attorney Study as each are above described. LC represents that the Catalyzer has demonstrated or is capable of demonstrating the capacity to generate continuous thermal energy at a rate of approximately 4 times the energy input or more.

B. It is the goal and objective of both LC and AEG that AEG will work to negotiate the sale and/or licensing of the ECAT Technology to one or more private, commercial or governmental entities in the Americas for a minimum of One Hundred Fifty Million US Dollars (US \$150,000,000.00). The parties intend for the prospective buyer or licensee of the ECAT Technology to initially purchase from LC a reactor using multiple Catalyzers connected in series and capable of producing one (1) megawatt of thermal energy utilizing the ECAT Technology for a minimum of Fifteen Million US Dollars (US \$15,000,000.00). A payment of the initial Fifteen Million US Dollars (US \$15,000,000.00) purchase price by the prospective buyer or licensee shall be contingent upon the positive outcome of independently verifiable tests to the reasonable satisfaction of the prospective buyer or licensee, which tests support the performance of the ECAT Technology.

C. In case of any agreement with the Government, the same conditions as with other Customers will be maintained and Leonardo will also participate in the benefits of the common research, if any.

D. All contracts will be made between Leonardo Corp. and the Customers. AEG will have the right to possess original copies of all agreements made on the territory subject to its exclusivity. All payments will be made from the Customers directly to LC, while LC will pay to AEG any payments due within 3 days from the payments from the Customers will have been cashed from LC. AEG will have the right to ask to the Customer all the documents regarding the payments made from the Customer to LC or

Andrea Rossi.

6. ALLOCATION OF LICENSE/SALE PROCEEDS

Proceeds from the sale and/or licensing of the ECAT Technology shall be allocated between LC and AEG as follows:

A. Fifty Thousand Dollars (\$50,000.00) of the initial sales or licensing proceeds in the amount of Fifteen Million US Dollars (US \$15,000,000.00) shall be payable to AEG as reimbursement for the initial consideration paid by AEG to LC upon the execution of this Agreement. The balance of the initial sales proceeds of Fifteen Million US Dollars (US \$15,000,000.00) shall be payable in the proportion of two-thirds to LC and one-third to AEG. These sums will be paid from LC to AEG only if LC will be paid from the Customer; if for any reason the Customer will not pay, nothing will be paid to AEG, for any reason, nor AEG will have the right to be refunded, for any reason, with no exclusions.

B. The proceeds received from the sale or licensing of the ECAT Technology in excess of Fifteen Million US Dollars (US \$15,000,000.00) up to a total of One Hundred Fifty Million US Dollars (US \$150,000,000.00) (being a net amount not greater than One Hundred Thirty Five Million US Dollars (US \$135,000,000.00)) shall be distributed two-thirds to LC and one-third to AEG.

C. All receipts received from the sale or licensing of the ECAT Technology in excess of One Hundred Fifty Million US Dollars (US \$150,000,000.00) shall be distributed one-half to LC and one-half to AEG.

D. In the event that LC should agree to construct, for the benefit of an existing buyer or licensee of the E-Cat technology, a plant using the E-Cat technology, the proceeds from the sale shall be divided between LC and AEG as follows: LC shall first be paid the costs incurred to construct the E-Cat Technology plant on an assumed cost of US \$2,000.00 per kW of power installed and that any proceeds received in excess of said assumed construction costs would be distributed one half to LC and one half to AEG. By way of example, if LC would construct a one MW thermal power plant, the assumed cost of construction of said plant would be US \$ 2,000,000.00, which would be payable solely to the account of LC with any proceeds from the sale that are in excess of US \$2,000,000.00 to be distributed one half to LC and one half to AEG.

7. CONFIDENTIALITY OF AGREEMENT

Except as otherwise provided for in this Agreement, the parties will keep confidential the content of this Agreement, unless such information is required to be disclosed to comply with a valid order of a government or judicial entity of competent authority, in which case the affected party will undertake reasonable commercial efforts

Mr
(KW)
TFM

cc

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to advise the other parties in advance of the requirements to disclose. The content and the timing of any press release or other public announcement or communication relating to the matters of this Agreement shall be mutually agreed in advance by AEG and LC, notwithstanding that AEG will have the right to communicate as reasonably necessary for the purpose of developing and commercializing the ECAT Technology.

8. ARBITRATION

A. Any dispute arising out of this Agreement, including those relating to its validity, interpretation, performance and termination, will be finally and definitively settled by an Arbitration Board, made up of a panel of three Arbitrators, one appointed by each of AEG and LC and the third, to be the chairman, appointed by agreement between the two Arbitrators appointed by AEG and LC, or, absent the ability of the appointing Arbitrators to agree, by the procedures specified by the Arbitration Rules of the International Chamber of Commerce.

B. Any arbitration relating to the Agreement will be held in the State of Florida under the Arbitration Rules of the International Chamber of Commerce. The Arbitration Board shall be directed by the parties involved in such arbitration to issue its decision within ninety (90) days of its formation. All arbitral awards shall be issued in a form that will allow them to be enforced by the courts of Italy and the United States. The language of the arbitration proceedings shall be the English language.

9. CORPORATE RESOLUTIONS

Concurrent with the execution of this Agreement LC shall deliver to AEG and AEG shall deliver to LC copies of resolutions of their respective Board of Directors certified by their respective corporation's Secretary stating therein that each corporation is duly authorized to enter into and execute this Agreement and to fully perform its covenants, agreements and obligations set forth therein.

10. COSTS AND EXPENSES

Each of the parties hereto shall bear their own expenses incurred in connection with this Agreement and in the consummation of the transactions contemplated herein and in the preparation hereof.

11. NOTICES

All notices or other communications made pursuant hereto shall be in writing and shall be deemed properly delivered, given or served if (i) personally delivered, (ii) mailed by certified or registered mail, return receipt requested, postage prepaid, or (iii) sent by overnight courier service, to the parties at the following addresses.

LC: Leonardo Corporation
1331 Lincoln Road, Unit 601
Miami Beach, Florida 33139 USA

Rossi: Andrea Rossi
c/o Leonardo Corporation
1331 Lincoln Road, Unit 601
Miami Beach, Florida 33139 USA

AEG: AmpEnergo, Inc.
4110 Sunset Boulevard
Steubenville, Ohio 43952

All notices shall be deemed received (i) if sent by overnight courier, one business day after it is sent, and (ii) if sent by certified or registered mail, forty-eight (48) hours after deposit in the United States mail. Either party may change its address for the purposes of this section by giving ten (10) days prior written notice of such change to the other party in the manner provided in this paragraph.

12. NON-ASSIGNMENT

This Agreement shall not be assignable by any of the parties hereto, without the express written consent of all of the parties hereto, and nothing in this Agreement, expressed or implied, is intended to confer upon any person or corporation, other than the parties hereto and their respective heirs, executors, administrators and successors, any rights or remedies under or by reason of this Agreement.

13. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

14. CHANGES IN WRITING

Any changes or waivers in any of the provisions of this Agreement shall be in writing and signed by all of the parties hereto, and such changes or waivers shall not in any way effect any of the other terms or provisions of this Agreement unless expressly so indicated.

15. ENTIRE AGREEMENT

This Agreement and the exhibits referred to herein contain the entire agreement of the parties with respect to the purchase of the assets and other transactions contemplated by this Agreement and supercede all understandings or agreements heretofore made.

16. PARAGRAPH HEADINGS

The paragraph headings in this Agreement are inserted for convenience only and shall not in any way affect the meaning or interpretation of this Agreement.

Handwritten initials and marks on the right margin, including a large 'H' and 'RW' in a circle, 'TFD', 'CC', and a checkmark.

17. WAIVER

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded hereunder or by law or equity shall be taken and construed as cumulative, that is, in addition to every other remedy provided hereunder or by law or equity.

18. SUCCESSION

All of the terms, provisions, covenants, agreements, and conditions of this Agreement shall inure to and be binding upon the respective heirs, administrators, executors, successors and assigns of the parties hereto, whether herein express or not.

19. LANGUAGE OF AGREEMENT

The language of this Agreement and all communications among the parties shall be the English language.

IN WITNESS WHEREOF, SELLER and BUYER have caused these presents to be executed in two counterparts, each of which shall be deemed an original on the day and year first above written on the dates set forth below their respective signatures.

Witnesses as to LC:

Witness No. 1 Signature

Print Name: EMILIO VILLALBA

Witness No. 2 Signature

Print Name: Diana M. Carrasco

Witnesses as to Rossi:

Witness No. 1 Signature

Print Name: EMILIO VILLALBA

Witness No. 2 Signature

LC:

Leonardo Corporation

By: DR. ANDREA ROSSI

DR. ANDREA ROSSI, President

Date: 7th April 2011

ROSSI

DR. ANDREA ROSSI

Date: 7th April 2011

Print Name: _____

Witnesses as to ARG:

AEG:

Witness No. 1 Signature _____

Print Name: Enrique M. Meco

AmpEnergio, Inc. -

By: Craig Cassarino
CRAIG CASSARINO, Secretary

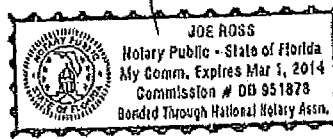
Date: 4/18/11

Witness No. 2 Signature _____

Print Name: Diana M. Carrasco

State of Fla
Notary Public
(USA) Before me to be
7th of April 2011 signed
Craig Cassarino as Secretary
Diana M. Carrasco as Secretary
document as true and correct.

4/18/11
Enrique M. Meco



Bona Fide
080411061

John P. Pugh
AA 12-9242

CW
TSD
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EXHIBIT C

Description of the 1 MW E-CAT Unit and the "Hot Cat" Unit

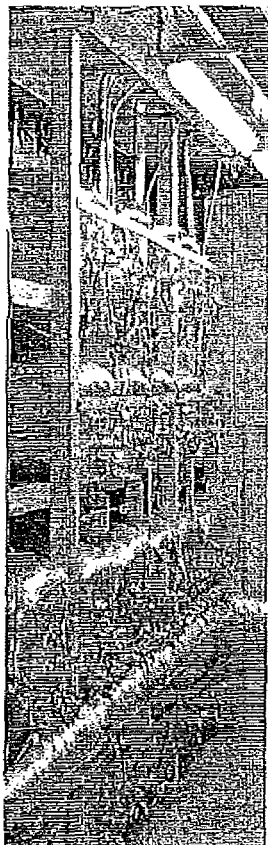
The product of Leonardo known and referred to as the "Hot-Cat," and as described in a series of 5 email attachments delivered on behalf of Leonardo and Rossi to Thomas F. Darden @tdarden@cherokeefund.com by Andrea Rossi from eon3333@tiscali.it on October 26, 2012

See attached description of 1 MW E-CAT Unit.

TFD

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Specifcation of E-Cat 1Mw Unit



Thermal Output Power	1 MW
Electrical Input Power Peak	200 kW
Electrical Input Power Average	167 kW
COP	6
Power Ranges	20 kW-1 MW
Modules	52
Power per Module	20kW
Water Pump brand	
Water Pump Pressure	4 Bar
Water Pump Capacity	1500 kg/hr
Water Pump Ranges	30-1500 kg/hr
Water Input Temperature	4-85 C
Water Output Temperature	85-120 C
Control Box Brand	Natl. Instr.
Controlling Software	Leonardo
Operation and MaintenanceCost	\$0.5/MWhr
FuelCost	\$0.1/MWhr
RechargeCost	\$10/module
RechargeFrequency	2/year
Warranty	2 years
EstimatedLifespan	20 years
Price	1.5 M US
Total Cost (20 years operation)	12.13/MWh Euro
Dimension	2.4x2.6x6m

[Handwritten signatures and initials]

EXHIBIT D

List of Agreements Related to E-Cat IP or E-Cat Products

See attached.

TPO

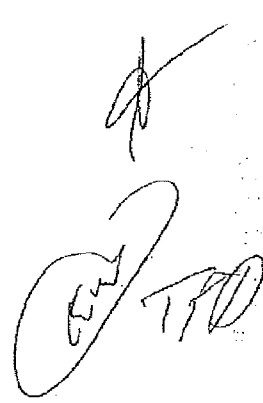
Per

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EXHIBIT D

LIST OF THE EXCLUSIVE COMMERCIAL LICENSEES

- 1- AMPENERGO - AMERICAS
- 2- HYDROFUSION (LONDON): NORTH EUROPE
- 3- ECOGLOBALFUELS (SIDNEY): AUSTRALASIA, AFRICA, INDIA
- 4- LUBERONENERGIES (AMSTERDAM): FRANCE, BENELUX
- 5- LEONARDO SLOVENIA (LUBIANA): SLOVENIA
- 6- PROMETEON (BOLOGNA): ITALY AND AUSTRIA
- 7- ECAT DEUTSCHLAND (BERLIN) : GERMANY
- 8- ECAT SWISSE (ZURICH): SWISSE AND LIECHTENSTEIN
- 9- CASTIGAN (LA VALLETTA): MALTA
- 10- STREMMENOS (ATHENS): GREECE AND BALKANS
- 11- MAIMARIS (CYPRUS); CYPRUS

Handwritten signature and initials, possibly "JTD", in the bottom right corner of the page.

SCHEDULE 3.2(b)

Procedures for Validation of E-Cat IP

No later than five days following Validation of the Plant, Leonardo and Rossi will deliver to any combination of one or more United States patent attorneys (the "Attorney(s)") and a nuclear engineer (the "Engineer"), in each case that are not an Affiliate of Rossi, to be selected by Leonardo (the "Validation Agent"), all documents, manuals, technical data, formulae, and other items and materials (collectively, the "Technical Information") necessary or useful to enable the Company to (i) operate the IMW E-Cat Unit and the "Hot Cat," (ii) make E-Cat Products, and (iii) exploit the E-Cat IP as contemplated by this Agreement; provided, however, that the Technical Information shall not include the catalyzer formula used to fuel the E-Cat and the "Hot Cat" (the "Catalyzer Formula").

The Engineer will be engaged to review the Technical Information delivered to it and verify to the Company in writing that such Technical Information includes all items and materials that appear to be reasonably necessary or useful to enable the Company to build and operate the IMW E-Cat Unit and the "Hot Cat," exclusive of the Catalyzer Formula. The Engineer will be required to submit the written verification to the Company, Leonardo, and the Escrow Agent as soon as possible following Validation, but in any event within thirty days following Validation. The Escrow Agent will be instructed to deliver to Leonardo the escrowed \$10,000,000 immediately upon receipt of the written verification from the Engineer.

Prior to delivery of the Technical Information to the Attorney(s) and the Engineer, if requested by Leonardo, such Attorney(s) and Engineer will be required to enter into an agreement pursuant to which they agree to keep the Technical Information delivered to them and the E-Cat IP in strict confidence and not disclose to any party any of the Technical Information or the E-Cat IP or the fact that they received and reviewed any of the Technical Information. Each Attorney and the Engineer will further agree to hold such materials in escrow and deliver the Technical Information in their possession (i) to the Company immediately upon receipt of notice from the Escrow Agent that the \$10,000,000 has been delivered to Leonardo by the escrow agent as contemplated by Section 3.2(b), or (ii) to Leonardo in the event the Engineer is unable to verify that the Technical Information delivered to it meets the conditions specified above within thirty days following Validation. The Company shall bear the costs of the Engineer.

Leonardo and Rossi shall deliver the Catalyzer Formula to the Company immediately following delivery of the \$10,000,000 to Leonardo by the Escrow Agent and shall concurrently advise, instruct and demonstrate to the Company the steps and procedures necessary to create the Catalyzer Formula and to use the Catalyzer Formula to make the IMW E-Cat Unit and the "Hot Cat" fully operable in the same manner as required for Validation of the Plant.

The Engineer's written verification, all Technical Information, the Catalyzer Formula, and all other E-Cat IP, to be delivered to the Company pursuant to the terms of the Agreement and this Schedule 3.2(b) must be in English.

CONTRIBUTION AGREEMENT

This CONTRIBUTION AGREEMENT (the "Agreement") is made this 21st day of January 2013 (the "Effective Date") by and between Industrial Heat, LLC, a Delaware limited liability company (the "Company"), and AmpEnergo, Inc., an Ohio corporation ("AEG").

WITNESSETH:

WHEREAS, Company is a Delaware limited liability company formed on October 24, 2012; and,

WHEREAS, pursuant to an agreement (the "AEG/LC Agreement") dated April 7, 2011 and entered into between AEG, Leonardo Corporation ("LC"), and Andrea Rossi ("Rossi"), AEG holds the exclusive right from LC to "commercially market and sell the ECAT Technologies and License of manufacturing in the Americas;" and,

WHEREAS, the Company entered into a license agreement with LC, Rossi, and AEG effective as of October 26, 2012 (the "License Agreement"), pursuant to which the Company will control the E-Cat IP and E-Cat Products (each as defined in the License Agreement and collectively referred to herein as the "E-Cat Technology" and specifically including, without limitation, the "Hot Cat") in the Americas, China, Russia, Saudi Arabia, and the United Arab Emirates (the "Territory"); and,

WHEREAS, AEG wishes to contribute and the Company wishes to accept certain property rights and interests in consideration for the issuance by Company of agreed upon Membership Interests to AEG in such proportions and at such times as set forth in this Agreement; and,

WHEREAS, the Company and AEG are entering into this Agreement to more fully document the terms generally set forth in that certain Memorandum of Terms between the Company and AEG dated October 26, 2012, which shall be superseded by this Agreement;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which hereby are acknowledged, it is agreed as follows:

1. Contribution of AEG Property.

- (a) In exchange for the contingent future right to receive voting Membership Interests in the Company and certain cash consideration upon the occurrence of certain events, as more specifically described hereinbelow, AEG hereby contributes, conveys, assigns and transfers to Company as a capital contribution, and Company hereby accepts from AEG, AEG's exclusive rights to commercially market and sell the E-Cat technologies and license of manufacturing in North, South, Central America and the Caribbean, all as more specifically set forth in the AEG/LC Agreement, as well as any other rights AEG has under the AEG/LC Agreement (the "Contributed Property").

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- (b) The fair market value of the Contributed Property on the Effective Date is uncertain and is ascertainable only upon the occurrence of the events described in Sections 2(a) and 2(b) below, and such fair market value shall be determined pursuant to those provisions of this Agreement. At such times, if any, as AEG is issued Membership Interests in the Company pursuant to the provisions of Sections 2(a) and 2(b) below, the fair market value of the Contributed Property as established under this Agreement shall be utilized in recording such property on the Company's books and records maintained for purposes of complying with Section 704(b) of the Internal Revenue Code of 1986, as amended (the "Code") and the regulations promulgated thereunder, in the manner described respectively in Sections 2(a) and 2(b) below.

2. Issuance of Equity and Cash Consideration. In consideration of AEG's contributing the Contributed Property to the Company, AEG shall be entitled to receive from the Company the following:

- (a) Within thirty (30) days following the date LC receives \$10 million as provided in Section 3.2(b) of the License Agreement, the Company will issue to AEG, in partial consideration of AEG's contribution of the Contributed Property, voting Membership Interests (the "Equity") equivalent to \$4.5 million in value (the "First Tranche") based on an agreed valuation of the Company at that time of \$12.05 Million; provided however, that the Company may elect to deliver to AEG such consideration in the form of cash or a combination of cash and equity. By way of example, if the First Tranche due to AEG is received as Equity in the Company, AEG would own 27.19% of the Company ($\$4.5 \text{ million} \div (\$12.05 \text{ million} + \$4.5 \text{ million})$). It is the intent of AEG and the Company to work together to successfully raise the \$4.5 million reflected in this paragraph. If, despite the reasonable best efforts of each party, the entire \$4.5 million is not raised in cash, the amount not raised in cash will be issued as Equity in the Company as set forth in this paragraph.

For purposes of AEG's Capital Account in the Company, if AEG is entitled to receive the First Tranche of Equity and/or cash as provided above, AEG shall be credited with making a Capital Contribution in an amount equal to \$4.5 million less any amount of cash received pursuant to this Section 2(a) and shall be credited with a Capital Account in such amount. By way of example, based on the example above in this Section 2(a), if AEG receives all Equity, it would be entitled to Capital Account credit of \$4.5 million.

- (b) Within five (5) business days following the date LC receives \$89 million or \$44.5 million, as the case may be, as provided in Section 3.2(c) of the License Agreement (the "3.2(c) LC Payment"), the Company will issue to AEG, in partial consideration of AEG's contribution of the Property, Equity based upon a deemed contribution to the Company of \$45 million (the "Second Tranche"), less the Minimum Cash (as defined below) due, if any, with such Equity to be priced

based upon a 20% discount to the pre-money fair market value of the Company at that time as determined by the terms utilized with other participating investors at that time (the "pre-money FMV"). If as of the time the 3.2(c) LC Payment is made, AEG has not previously received total cash payments or distributions of not less than \$5 million (the "Minimum Cash") from the Company, then the Company shall pay or distribute to AEG the portion of the Second Tranche necessary to provide an amount of cash equal to the difference between the amount of cash payments or distributions previously received by AEG pursuant to this Agreement and \$5M and shall issue the balance of the Second Tranche in Equity. By way of example, if the Company elects to provide only Equity to AEG and the then pre-money FMV of the Company is \$1 billion, AEG would receive a 5.33% ownership interest in the Company upon a deemed contribution to the Company of \$45 million. If the Company pays or distributes \$4.5 million of the Second Tranche in cash and the remainder in Equity and the then pre-money FMV of the Company is \$1 billion, AEG would receive a 4.82% ownership interest in the Company upon issuance of Equity based upon a deemed contribution to the Company of \$40.5 million.

For purposes of AEG's Capital Account in the Company, if AEG is entitled to receive the Second Tranche, AEG shall be credited with an increase in the amount of its Capital Contribution in an amount equal to the value of the Equity received, if any, based upon the pre-money FMV of the Company without regard to the discount pricing received by AEG. By way of example, based on the first example above in this Section 2(b), if AEG receives all Equity, it would be entitled to Capital Account credit of \$55.7 million.

- (c) The issuance of any Equity pursuant to this Agreement will be accomplished by a customary Membership Purchase Agreement among AEG and the then existing Members of the Company providing for (i) customary preemptive rights with respect to the issuance of any new securities of the Company, (ii) customary co-sale rights and obligations with respect to any sale of the securities of the Company by its Members, (iii) so long as AEG is an owner of at least 15% of the outstanding equity of the Company, the right of AEG to designate an individual to serve on the Company's governing body, with the voting power of such individual in relation to the total voting power of the governing body not to exceed AEG's percentage ownership of the outstanding equity of the Company; and (iv) certain consent rights relative to the sale or sublicense of the E-Cat Technology by the Company to an affiliate of a member of the Company for less than fair value.

In connection with the issuance of any securities in the Company as contemplated above, AEG agrees to provide any representations and execute any documents required by the Company to comply with applicable securities laws. Further, as a condition to the closing of any such transaction, AEG shall enter into the operating agreement of the Company in effect at such time and shall be subject to such terms and conditions contained therein as are applicable to other members of the Company at such time.

3. Right to Receive Proceeds. The Company has paid to AEG \$550,000 in exchange for the contingent future right to receive proceeds as described herein (the "Right to Receive Proceeds"), and AEG acknowledges receipt of such payment. The Company may exercise the Right to Receive Proceeds at any time following termination, for any reason, of the License Agreement by providing written notice of such exercise to AEG; provided that the Right to Receive Proceeds will expire and terminate, in any event, upon compliance by LC and Rossi with all delivery and other obligations under the License Agreement and payment by the Company of all amounts that become due and payable under the License Agreement. Upon exercise of the Right to Receive Proceeds, the Company will acquire a 27.19% interest in all payments to which AEG is or becomes entitled under the AEG/LC Agreement in accordance with the Assignment of Payment Rights in the form attached hereto as Exhibit A. In no event will the Company be entitled to receive any revenue payable by the Company to AEG as a result of the License Agreement, it being understood that any and all such revenue is intended to benefit the current owners of AEG. AEG represents and warrants that the AEG/LC Agreement is in full force and effect as of the date hereof, has not been amended, assigned, transferred, pledged, or a security interest granted therein, and AEG's rights thereunder have not otherwise been altered or terminated. Further, from the date of this Agreement through closing of the exercise by the Company of its Rights to Receive Proceeds, AEG will not amend, assign, transfer, pledge, grant a security interest in or otherwise alter or terminate its rights under the AEG/LC Agreement without the prior written consent of the Company.

4. Intent of Parties. The Company anticipates receiving the exclusive right and license to develop, manufacture, make, have made, use, have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all products deriving from the E-Cat IP in the Territory, as contemplated by the License Agreement. Upon receipt of such exclusive right and license, the Company plans to sublicense and commercialize the E-Cat Technology and, provided that AEG has received or will receive Equity in the Company, the parties intend to work together in doing so. In connection therewith, AEG intends to work closely with the Company towards the successful commercialization of the E-Cat Technology, including AEG providing assistance in future negotiations regarding research and licensing agreements with commercial and government entities with which AEG has had a prior and ongoing relationship and assisting with additional investments into the Company from outside investors known to AEG.

5. Confidentiality. AEG will, at all times both during and following the term of this Agreement, (a) maintain, preserve, and protect the confidential, proprietary and trade secret nature of the "Confidential Information," as defined below, whether such Confidential Information relates to business, technical, financial or other affairs of the Company, or any affiliate of the Company, and whether such Confidential Information was received by or disclosed to AEG in oral, written or electronic form, and (b) refrain from using for the benefit of itself or any third party, or disclosing to any third party, any of the Confidential Information without the written consent of the Company. The term "Confidential Information" as used herein shall mean and include all information not generally available to the public regarding this Agreement or the License Agreement or relating to the business, technical, financial or other affairs of the Company or its affiliates, including, without limitation, the fact that this Agreement or the License Agreement exists or the terms thereof (provided that AEG and its shareholders

may disclose the payment terms of this Agreement to their personal tax advisors), all information relating to intellectual property and products licensed pursuant to the License Agreement, all information relating to pricing, financing, business structure, transactions and parties to transactions, investors, and the internal affairs and relationships of the Company or its affiliates with third parties, and all information disclosed to or received by AEG which is specifically and reasonably identified to it by the Company or any affiliate, either orally, in writing or electronically, as constituting Confidential Information hereunder. Notwithstanding the foregoing, AEG will be entitled to disclose Confidential Information to the extent necessary to satisfy the demands of valid legal process and to the extent such information becomes publicly available through means not involving a breach of its obligations hereunder; provided, however, that if AEG shall become subject to any legal process requesting disclosure of any Confidential Information, AEG will promptly notify the Company in writing so that the Company, at its election, may seek to prevent such disclosure or to obtain a protective order maintaining the confidentiality of such information. The violation of the confidentiality provisions set forth above would cause irreparable harm that may not be adequately calculated or fully remedied by monetary relief. Accordingly, in the event of any such violation by AEG or any of its shareholders or principals, the Company will be entitled to seek and obtain injunctive relief in addition to and not in lieu of money damages.

6. Taxes. To the extent AEG receives Equity pursuant to Sections 2(a) and 2(b) of this Agreement, the parties agree to treat such transaction for income tax reporting and all other income tax purposes as a qualifying exchange of property for partnership interests for income tax purposes under Section 721(a) of the Code. To the extent AEG receives cash pursuant to Sections 2(a) and 2(b) of this Agreement, the parties agree to treat such transaction for income tax reporting and all other income tax purposes as a sale under the rules of Section 707(a)(2)(B) of the Code and Treasury Regulation Section 1.707-3. The parties agree to take tax return positions consistent with the prior two sentences and claim such treatment in any audit or other tax proceeding.

7. No Assignment. Neither party will be entitled to assign this Agreement to any person without the prior written consent of the other party, which consent may be given or withheld or conditioned in such party's sole discretion.

8. Entire Agreement; Binding Effect. This Agreement contains the entire agreement between the parties relating to the subject matter hereof and any prior agreements pertaining thereto, whether oral or written, are hereby merged and integrated into this Agreement. No subsequent amendment, modification or other change of this Agreement will be valid, binding or enforceable unless the same shall be made in writing and signed by the person against whom enforcement is sought. This Agreement settles and resolves in full all matters between the parties and/or any of their respective affiliates, members, managers, owners, representatives, or agents (collectively, "Affiliated Parties") with respect to the payments due AEG in connection with the License Agreement, it being understood that the Affiliated Parties shall be third party beneficiaries of this paragraph. This Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the Company and AEG as their interests appear.

9. Notices. All communications between the parties or notices or other information

sent under this Agreement shall be in writing, hand delivered or sent by overnight courier for next business day delivery, addressed to the relevant Party at its address specified below or at such other address as such Party may request in writing. All such communications and notices shall be effective the next business day following delivery to the courier.

If to the Company:

Industrial Heat, LLC
Attention: Tom Darden
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

with a copy to:

Schell Bray, PLLC
Attention: Thomas C. Watkins, Esq.
230 North Elm Street, Suite 1500
Greensboro, NC 27401

If to AEG:

AmpEnergo, Inc.
Attention: Karl Norwood
4110 Sunset Boulevard
Steubenville, Ohio 43952

And

NAI Norwood Group
Attention: Karl Norwood
116 South River Road
Bedford, NH 03110

with a copy to:

Nixon Peabody LLP
Attention: James C. Hood
900 Elm Street
Manchester, NH 03101

10. Counterparts. This Agreement may be executed in counterparts, no one of which need contain the original signatures of all parties hereto, provided that one or more counterparts collectively shall contain the signatures of both parties to this Agreement. Execution hereof by facsimile or electronic mail shall have the same force and effect as execution by original signature.

11. Governing Law. This Agreement shall be governed in all respects by the laws of the State of North Carolina.

[Signature page follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement, as of the day and year first above written.

INDUSTRIAL HEAT, LLC

By: TH F Jarden
Name: THOMAS F. JARDEN
Title: Managing Member

AMPENERGO, INC.

By: Karl Norwood
Name: KARL NORWOOD
Title: President

The undersigned, being shareholders of AEG, hereby join into this Agreement for purposes of being personally bound by the provisions set forth herein and acknowledging and agreeing that any breach by them of the confidentiality provisions set forth herein shall also be deemed a breach by AEG.

Karl Norwood
Karl Norwood

Craig Cassano
Craig Cassano

Ronald Engleman
Ron Engleman

Robert Gentile
Robert Gentile

Richard Noceti
Richard Noceti

IN WITNESS WHEREOF, the undersigned have executed this Agreement, as of the day and year first above written.

INDUSTRIAL HEAT, LLC

By: Thomas F. Barden
Name: THOMAS F. BARDEN
Title: Managing Member

AMPENERGO, INC.

By: Karl Norwood
Name: Karl Norwood
Title: President

The undersigned, being shareholders of AEG, hereby join into this Agreement for purposes of being personally bound by the provisions set forth herein and acknowledging and agreeing that any breach by them of the confidentiality provisions set forth herein shall also be deemed a breach by AEG.

Karl Norwood
Karl Norwood

Craig Cassano
Craig Cassano

Ron Engleman
Ron Engleman

Robert Gentile
Robert Gentile

Richard Noceti
Richard Noceti

EXHIBIT A

Form of Assignment of Payment Rights

ASSIGNMENT OF PAYMENT RIGHTS

THIS ASSIGNMENT OF PAYMENT RIGHTS ("Agreement") is entered into as of _____ (the "Effective Date"), by and between AMPEMERGO, INC., an Ohio corporation ("Assignor"), and INDUSTRIAL HEAT, LLC, a Delaware limited liability company ("Assignee") (Assignor and Assignee each a "Party" and together the "Parties" hereunder).

WITNESSETH:

Pursuant to an agreement (the "Contract") dated April 7, 2011 among Assignor, Leonardo Corporation ("LC") and Andrea Rossi ("Rossi"), a copy of which is attached hereto as Exhibit A, Assignor holds the exclusive right to "commercially market and sell the ECAT Technologies and License of manufacturing in the Americas."

Under the Contract, from the proceeds of the sale and/or licensing of the ECAT Technology, Assignor is entitled to receive certain payments as set forth therein (the "Payment Rights").

Pursuant to an Agreement dated January ____, 2013 between Assignor and Assignee, Assignor granted to Assignee a fully paid option to acquire the Interest (as defined below) and Assignee has exercised such option.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties do agree as follow:

1. Sale of Interest. Assignor hereby agrees to assign, transfer and sell, and on the Effective Date does hereby assign, transfer and sell, to Assignee, and Assignee hereby agrees to acquire and, effective on the Effective Date, does hereby acquire, an undivided 27.19% interest (the "Interest") in (i) the Payment Rights and all other rights and benefits of the Assignor under the Contract, to the fullest extent permitted by applicable law, and (ii) all claims, suits, causes of action and any other right of Assignor, whether known or unknown, against the other parties to the Contract arising under or in connection with the Contract or the transaction governed thereby, including contract, tort claims and statutory claims and all other claims at law and in equity.

2. Consideration. In consideration for the assignment transfer and sale of the Interest hereunder, Assignee has previously paid to Assignor the amount of \$550,000, and Assignor hereby acknowledges receipt of such payment.

3. Payments to Assignee. Assignor shall remit without deduction or offset directly to Assignee all monies due or to become due to Assignee pursuant to Interest in immediately

available funds on the same day Assignor shall have received the funds. Assignee shall reimburse Assignor for all bank wire charges incurred or paid by Assignor in making remittances pursuant to this Agreement. All funds to be remitted by Assignor to Assignee shall be sent by federal funds, bank wire transfer to:

ABA Routing number _____
For the benefit of _____
Account # _____
SWIFT ID: _____

Assignee may at any time change the above-referenced wire transfer instructions by notice given in compliance herewith.

4. Representation and Warranties. Assignor hereby represents and warrants to Assignee that (i) a full, correct and complete copy of the Contract is attached to this Agreement as Exhibit A; (ii) Assignor has not previously assigned any interest under the Contract or pledged the Contract or granted any security interest therein; and (iii) the Contract is in full force and effect and neither Assignor, Rossi nor LC is in default thereunder.

5. Covenants. Assignor covenants and agrees that, unless the Assignee shall otherwise consent in writing, Assignor shall:

(a) Perform the obligations on Assignor's part to be kept and performed under the Contract.

(b) Deliver to Assignee a copy of any written notice delivered by Assignor or received by it pursuant to or in connection with the Contract and promptly notify Assignee, in writing, of the occurrence of any breach of the Contract, whether committed by it or any other party, as soon as Assignor becomes aware of such breach.

(c) Keep full and complete records and accounts with respect to the Contract and furnish Assignee with copies thereof at no charge and account to Assignee in writing as reasonably requested by Assignee, for all payments received by Assignor in connection with the Contract.

(d) Not encumber, pledge, mortgage, charge or otherwise grant a security interest in or to Assignor's right, title and interest in and to the Contract, it being agreed that any such security interest granted without Assignee's written consent shall be void and of no force and effect; and

(e) Not terminate, assign or otherwise dispose of any interest in, waive any breach of, or fail to enforce, or forgive or release any material right, interest or entitlement under, or seek to rescind or suspend, or amend, supplement or modify the Contract, and Assignor shall take all other actions necessary and proper to keep the Contract in full force and effect.

6. Filing of Financing Statements. Assignor authorizes Assignee to file financing statements under the applicable Uniform Commercial Code covering the Interest containing such information as Assignee shall deem necessary or desirable to protect Assignee's interest in the Payment Rights. Assignor agrees to execute as required by Assignee any necessary financing statements, continuation financing statements, and related documents as Assignee might request, in a form satisfactory to Assignee, so long as this Agreement remains in effect.

7. Enforcement of Contract. If any party commits a breach of the Contract then and in any such case, Assignor may, and in any event upon request by Assignee, shall, at Assignor's expense (without prejudice, however, to any right that Assignee might have as a result of such breach), cause, or join with Assignee in causing, appropriate proceedings to be instituted and prosecuted in a court of competent jurisdiction in order to enforce the performance or observance of the Contract. Assignor shall keep Assignee advised regarding the status of any such proceedings and shall permit Assignee, at Assignee's election and expense, to join in any such proceeding or to proceed directly to enforce the contract to the extent of the Interest.

8. No Assumption of Obligations. Assignor specifically acknowledges and agrees that the Assignee does not assume, and shall have no responsibility for, the payment of any sums due or to become due under the Contract by Assignor or the performance of any of the obligations to be performed under the Contract by Assignor, and Assignor indemnifies and holds Assignee harmless with respect to any and all claims by any person relating thereto.

9. Performance of Covenants. Assignee may perform any of the covenants of Assignor under the Contract in order to cure a breach of the Contract committed by the Assignor. All amounts paid by Assignee in connection with such cure shall be payable by Assignor on demand by Assignee.

10. Miscellaneous.

(a) Entire Agreement; Amendments; Exercise of Rights. This Agreement constitutes the entire agreement of the Parties with respect to the respective subject matters hereof and supersedes all previous and contemporaneous negotiations, promises, covenants, agreements, understandings and representations on such subjects, all of which have become merged and finally integrated into this Agreement. No amendment of any provision of this Agreement shall be effective unless it is in writing and signed by the Parties and no waiver of any provision of this Agreement, nor consent to any departure by either Party from it, shall be effective unless it is in writing and signed by the affected Party, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given. No failure on the part of a Party to exercise, and no delay in exercising, any right under this Agreement shall operate as a waiver hereof by such Party, nor shall any single or partial exercise of any right under this Agreement preclude any other or further exercise thereof or the exercise of any other right.

(b) Survival; Successors and Assigns. All representations, warranties, covenants, indemnities and other provisions made by the Parties herein shall be

considered to have been relied upon by the Parties, shall be true and correct as of the date hereof, and shall survive the execution, delivery, and performance of this Agreement. This Agreement, including the representations, warranties, covenants and indemnities contained in this Agreement, shall inure to the benefit of, be binding upon and be enforceable by and against the Parties and their respective successors and permitted assigns.

(c) Further Assurances. Each Party agrees (i) to execute and deliver, or to cause to be executed and delivered, all such instruments and (ii) to take all such actions, as the other Party may reasonably request to effectuate the intent and purposes, and to carry out the terms, of this Agreement, including the procurement of any third-party consents.

(d) Disclosure. Each Party agrees that, without the prior written consent of the other Party, it shall not disclose the contents of this Agreement to any Person, except that any Party may make any such disclosure (a) as required to implement or enforce this Agreement, (b) if required to do so by any law, court, regulation, subpoena or other legal process, (c) to any governmental authority or regulatory entity having or asserting jurisdiction over it, (d) if its attorneys advise it that it has a legal obligation to do so or that failure to do so may result in it incurring a liability to any other Person, (e) to its professional advisors and auditors or (f) to its members or shareholders, provided that they first agree to be bound by these confidentiality provisions to the same extent such Party is hereby bound.

(e) Counterparts. This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by email in portable digital format (pdf) or telecopy shall be effective as delivery of a manually executed counterpart of this Agreement.

(f) Relationship Between Assignor and Assignee. The relationship between Assignor and Assignee shall be that of seller and buyer. Neither Party is a trustee or agent for the other Party, nor does either Party or its respective officers, directors, managers or employees have fiduciary obligations to the other Party. This Agreement shall not be construed to create a partnership or joint venture between the Parties.

(g) Severability. The illegality, invalidity, or unenforceability of any provision of this Agreement under the law of any jurisdiction shall not affect its legality, validity or enforceability under the law of any other jurisdiction nor the legality, validity or enforceability of any other provision.

(h) Governing Law. This Agreement shall be governed by, and construed in accordance with, the law of the State of North Carolina.

(i) Jurisdiction. Each Party irrevocably and unconditionally submits to and accepts the nonexclusive jurisdiction of any North Carolina State or United States Federal court sitting in Wake County, North Carolina for any action, suit, or proceeding arising out of or based upon this Agreement or any matter relating to it, and waives any objection that it may have to the laying of venue in any such court or that such court is an inconvenient forum or does not have personal jurisdiction over it.

(j) Interest. If Assignor fails to pay any amount payable by it hereunder when due, then interest shall accrue and be payable immediately upon demand on such unpaid amount at a per annum rate, compounded annually, equal to the prime rate of interest as in effect from time to time, as reported in the money rates section of the Wall Street Journal, plus four percent (4%), from and including the date on which such amount became due to but excluding the date the same is paid in full.

(k) Notices. All communications between the Parties or notices or other information sent under this Agreement shall be in writing, hand delivered or sent by overnight courier for next business day delivery, addressed to the relevant Party at its address specified on Exhibit B or at such other address as such Party may request in writing. All such communications and notices shall be effective the next business day following delivery to the courier.

(l) No Third Party Beneficiary. None of the provisions of this Agreement shall inure to the benefit of any person other than Assignor and Assignee. Consequently, no person other than Assignor and Assignee shall be entitled to rely upon or raise as a defense, in any manner whatsoever, the failure of either Assignor or Assignee to comply with the provisions of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

AMPEMERGO, INC.

INDUSTRIAL HEAT, LLC

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: Manager

EXHIBIT A

[See attached Contract]

14252094.4

A-1

EXHIBIT B

Addresses

If to the Company:

Industrial Heat, LLC

Attention: _____

111 East Hargett Street, Suite 300

Raleigh, North Carolina 27601

with a copy to:

Schell Bray, PLLC

Attention: Thomas C. Watkins, Esq.

230 North Elm Street, Suite 1500

Greensboro, NC 27401

If to AEG:

AmpEnergo, Inc.

Attention: _____

4110 Sunset Boulevard

Steubenville, Ohio 43952

With a copy to:

Nixon Peabody LLP

Attention: James C. Hood

900 Elm Street

Manchester, NH 03101

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**FIRST AMENDMENT TO
LICENSE AGREEMENT**

THIS FIRST AMENDMENT TO LICENSE AGREEMENT (this "Amendment"), is made and entered into as of April 29, 2013 by and among LEONARDO CORPORATION, a New Hampshire Corporation ("Leonardo"), ANDREA ROSSI ("Rossi"), AMPENERGO, INC., an Ohio corporation ("AEG"), and INDUSTRIAL HEAT, LLC, a Delaware limited liability company (the "Company"). Each of Leonardo, Rossi, AEG and the Company are referred to herein as a "Party" and collectively as the "Parties."

WHEREAS, the Parties entered into that certain License Agreement effective as of October 26, 2012 (the "Agreement"), and desire to amend the Agreement in certain respects. Capitalized terms used herein without definition have the respective meanings set forth in the Agreement.

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Amendment. The Agreement is hereby amended as follows:

A. Section 3.2(a) of the Agreement is hereby amended to delete the fourth sentence in its entirety and replace it with the following:

"The Plant will be available for Validation and delivery on April 30, 2013 (unless otherwise agreed in writing by the Company and Leonardo) and will be delivered to the location specified by the Company, at Leonardo's expense, within thirty Business Days following Validation."

B. Section 4 of the Agreement is hereby amended to delete the second and third sentences of Section 4 in their entirety and to replace them with the following:

"The Validation will be made in the factory of Leonardo in Ferrara, Italy on April 30th and May 1st 2013 (unless otherwise agreed in writing by the Company and Leonardo)." "Validation" will be deemed successful and achieved when the expert responsible for such validation ("ERV") certifies that the performance standards for the Plant set forth in Exhibit A to this Amendment have been met.

C. Section 16.7 of the Agreement is hereby amended to delete it in its entirety and replace it with the following:

16.7 Assignment. Other than the Company's right to sublicense as provided in Section 1, neither Leonardo nor Rossi, nor the Company, shall assign or otherwise transfer any of its rights, or delegate or otherwise transfer any of its obligations or performance under this Agreement, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the other party's prior written consent; provided that all Parties hereby consent to the assignment and transfer of this Agreement to one or more subsidiaries of the Company that are directly or indirectly wholly-owned by the Company. No delegation or other transfer will relieve

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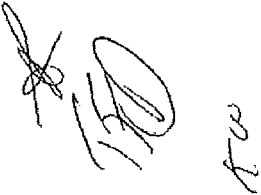
Handwritten signature and initials, possibly "Hw" and "TH", in the right margin.

Leonardo or Rossi or the Company of any of their obligations or performance under this Agreement. Any purported assignment, delegation or transfer in violation of this Section 16.7 is void. This Agreement is binding upon and inures to the benefit of the Parties and their respective permitted successors and assigns.

2. **No Other Changes.** Except as expressly provided herein, the Agreement remains in full force and effect and is ratified and confirmed by the parties to this Amendment.
3. **Counterparts.** This Amendment may be executed in counterparts, no one of which need contain the original signatures of all Parties, provided that one or more counterparts collectively shall contain the signatures of all Parties to this Amendment. Execution hereof by facsimile shall have the same force and effect as execution by original signature.

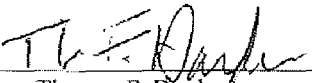
IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby, have duly executed this License Agreement on the date first above written.

[Signature page follows]

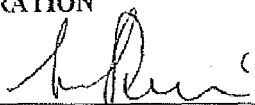


[Signature page to First Amendment to License Agreement]


INDUSTRIAL HEAT, LLC

By: 
Name: Thomas F. Darden
Title: Manager
Address for Notices:
111 East Hargett Street, Suite 300
Raleigh, NC 27601
Email:

LEONARDO CORPORATION

By: 
Name: ROSSI ANDREA
Title: CEO AND PRESIDENT
Address for Notices:
Andrea Rossi
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

ROSSI


Andrea Rossi
Address for Notices:
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

AEG:

AmpEnergio, Inc.

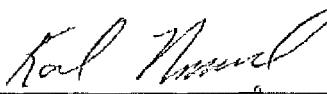
By: 
Name: Karl Winkler
Title: President
Address for Notices:
4110 Sunset Boulevard
Steubenville, Ohio 43952
Email: crgcassarino67@gmail.com

EXHIBIT A

Performance Standards for the Plant

[Handwritten signature]

[Handwritten signature]

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4

Exhibit A

E-Cat Validation Protocol

Description: Two separate units ("Unit A" and "Unit B"), each composed of a different set of 30 individual E-Cat reactors, will be tested for a period of 24 hours, per the schedule below. Subsequently, a Hot Cat unit will be tested for a period of 15 hours, as described below. For purposes concerning validation achievement, only the performance of Unit A will be considered. Unit B and the Hot Cat are being tested solely for purposes of further research and development.

Location: Factory of Leonardo Corporation, Ferrara, Italy

Schedule:

Unit A will be tested 9:00 a.m. April 30th - 9:00 a.m. May 1st

Unit B will be tested 5:00 p.m. May 1st - 5:00 p.m. May 2nd

The Hot Cat unit will be tested 6:00 p.m. May 2nd - 9:00 a.m. May 3rd

The time of consideration will be the local time in Ferrara, Italy.

Unit A performance requirements: Unit A will be required to consistently produce energy that is at least six times greater than the energy it consumes (that is, a coefficient of performance "COP" of six or greater) and steam that is consistently 100 degrees Celsius or greater during a 24 hour test period.

Unit A test requirements: Prior to the test, the expert responsible for validation ("ERV") must provide Industrial Heat: 1) a list, including make, model and calibration, of all instruments used during the test; and 2) a detailed test protocol which describes, among other things, how the ERV will extract measurements and where he will place thermometers, manometers, flow meters and other such measuring instruments used during the test.

Activation and deactivation of the unit will occur before and after the 24-hour test period. Measurements outside the 24-hour test period will not be included for purposes of calculating the COP. The COP will be calculated as the ratio between generated energy and absorbed energy during the 24-hour period. In the event the individual reactors produce differing COPs, an average COP will be calculated and used for purposes of determining the COP.

The ERV will measure the flow of the heated fluid and the Delta T between the temperature of the fluid before and after the E-Cat reaction. The energy absorbed by the unit will be determined by measuring the electricity consumed. From these measurements, the ERV will determine the COP of the unit.

At the conclusion of the test, the ERV will produce a final report showing the results.

Handwritten signature and initials, possibly "TFH" and "KW", in black ink.

**ASSIGNMENT AND ASSUMPTION OF
LICENSE AGREEMENT**

THIS ASSIGNMENT AND ASSUMPTION OF LICENSE AGREEMENT (this "Assignment") is made effective as of April 29, 2013, by and between **INDUSTRIAL HEAT, LLC**, a Delaware limited liability company (the "Assignor"), and **IPH INTERNATIONAL BV**, a Netherlands company (the "Assignee").

WHEREAS, the Assignor, **LEONARDO CORPORATION, ANDREA ROSSI**, and **AMPENERGO, INC.**, entered into that certain License Agreement dated as of October 26, 2012, as amended by that certain First Amendment to License Agreement dated as of April 26, 2013 (as amended, the "Agreement");

WHEREAS, the Assignor desires to assign the Agreement to the Assignee and the Assignee desires to accept such assignment and to assume all obligations of the Assignor under the Agreement;

WHEREAS, the Assignee is, indirectly, a wholly-owned subsidiary of the Assignor and Section 16.7 of the Agreement permits the assignment as provided herein;

NOW, THEREFORE, in consideration of the above premises, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Recitals and Exhibits. The Recitals set forth above are material and are incorporated into and made a part of this Assignment.
2. Assignment. The Assignor hereby transfers and assigns to the Assignee all right, title and interest of the Assignor in and to the Agreement.
3. Acceptance and Assumption. The Assignee hereby accepts the assignment of the Agreement and assumes all of Assignor's obligations under the Agreement.
4. Binding Effect. This Assignment shall inure to the benefit of, and be binding on, each of the parties hereto and their respective successors and assigns. This Assignment represents the entire agreement of the parties with respect to the subject matter hereof.
5. Counterparts. This Assignment may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.
6. Governing Law. This Assignment and any claim, controversy or dispute arising under or related to this Assignment shall be governed by and construed in accordance with the laws of the State of Florida.

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7. Further Assurances.

A. Assignor hereby agrees to provide to the Assignee such further assurances as may be reasonably requested by the Assignee at any time from and after the date hereof with respect to the Agreement and the assignment thereof to Assignee as provided herein, and, without limiting the foregoing, shall execute and deliver such affidavits, certificates and other instruments with respect to the Agreement as may be reasonably requested by the Assignee.

B. The Assignee hereby agrees to provide to Assignor such further assurances as may be reasonably requested by the Assignor at any time from and after the date hereof with respect to the Agreement and the assignment thereof to Assignee as provided herein, and, without limiting the foregoing, shall execute and deliver such affidavits, certificates and other instruments with respect to the Agreement as may be reasonably requested by the Assignor.

IN WITNESS WHEREOF, the Assignor and the Assignee have executed this Assignment effective the day and year first above written.

ASSIGNOR:

Industrial Heat, LLC

By: Thomas P. Darden
Thomas P. Darden
Manager

ASSIGNEE:

IPH International BV

By: IPH Management, LLC, Managing Director

By: Thomas P. Darden
Title: MANAGER

VALIDATION AGREEMENT

THIS VALIDATION AGREEMENT (this "Agreement"), is made and entered into as of April 29, 2013 by and among LEONARDO CORPORATION, a New Hampshire Corporation ("Leonardo"), ANDREA ROSSI ("Rossi"), Ruggero Giunti (the "Validation Agent") and IPH INTERNATIONAL B.V., a Netherlands company (the "Company"). Each of Leonardo, Rossi, Validation Agent, IP Attorney and the Company are referred to herein as a "Party" and collectively as the "Parties."

WHEREAS, Leonardo and/or Rossi are the sole owners of the patents, designs, trade secrets, technology, know-how (including all the knowledge necessary to produce thermal energy by means of apparatuses derived from the technology), products and business plans and all other intellectual property related directly or indirectly to energy production and conversion technologies and to the development, manufacture and sale of products using such technologies, including the Energy Catalyzer ("E-Cat") and the "Hot Cat" (collectively the "E-Cat Products"), the catalyzer formula (the "Catalyzer Formula") used to fuel the E-Cat and the "Hot Cat" and related energy production and conversion technologies (all of the foregoing being referred to herein collectively as the "E-Cat IP"), and Leonardo is the producer of certain components of such systems, all such E-Cat IP and E-Cat Products, including without limitation the IMW E-Cat Product and the "Hot Cat," being described or referenced in more detail in the License Agreement, as defined below, and in the E-Cat IP and the other materials to be delivered to the Validation Agent pursuant to Section 1(a) below, and

WHEREAS, Leonardo, Rossi and Ampenergo, Inc. ("AEG") have granted to Industrial Heat, LLC an exclusive license to utilize the E-Cat IP and to manufacture and sell the E-Cat Products as set forth in that License Agreement among them dated as of October 26, 2012, together with any amendments thereto (the "License Agreement"), and

WHEREAS, Industrial Heat, LLC has assigned its interest under the License Agreement to the Company;

WHEREAS, the Validation Agent has agreed to provide certain services to Rossi, Leonardo and the Company in connection with the License Agreement as provided herein;

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Validation

- (a) No later than five (5) Business Days following successful "Validation of the Plant" as provided in Section 4 of the License Agreement, Leonardo and Rossi shall deliver to the Validation Agent, to be held in escrow and delivered to the Company or to Leonardo, as the case may be, on the terms and conditions set forth in this Agreement, the E-Cat IP and all other documents, manuals, technical data, formulae and materials necessary or useful to enable the Company to (i) operate the IMW E-Cat Unit and the "Hot Cat" as described in the E-Cat IP and the other materials delivered to the Validation Agent, (ii) make E-Cat Products, and (iii) exploit the E-

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Cat IP as contemplated by the License Agreement (collectively, the "Technical Information"); provided, however, that the Technical Information shall not include the Catalyzer Formula.

- (b) The Validation Agent shall review the Technical Information for the purpose of verifying whether or not, in the professional judgment of the Validation Agent, the Technical Information includes all items and materials that appear to be reasonably necessary or useful to enable the Company to build and operate the E-Cat Products (including a 1MW E-Cat Unit and a "Hot Cat" Unit), exclusive of the Catalyzer Formula. If the Validation Agent verifies that the Technical Information does include all information and materials that, in their professional judgment, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula, the Validation Agent shall deliver to Rossi, Leonardo, the Company and Henry W. Johnson, as Escrow Agent under that Escrow Agreement among Rossi, Leonardo, the Company and the Escrow Agent dated as of April 29, 2013 (the "Escrow Agreement"), an executed notice of verification in the form attached hereto as Exhibit A (the "IP Verification Notice") as soon as possible following verification, but in any event within thirty (30) Business Days following delivery of the Technical Information under Section 1(a) hereof (the "Verification Deadline"). For purposes hereof, the term "Business Day" shall mean any day other than a day on which commercial banks in New York, New York, are authorized or required by law to close.
- (c) The Validation Agent shall exercise due care, skill and diligence consistent with reasonable professional and industry standards applicable to it in performing its obligations under this Agreement.
- (d) The Validation Agent shall hold the Technical Information in escrow and deliver all of the Technical Information in their possession (i) to the Company immediately upon receipt of notice from the Escrow Agent that the Escrow Deposit (as defined in the Escrow Agreement) has been delivered to Rossi and/or Leonardo, or (ii) to Leonardo in the event the Validation Agent has not delivered the IP Verification Notice by the Verification Deadline. The Validation Agent shall use an internationally recognized and reliable private overnight or next-day commercial delivery service to send any Technical Information that the Validation Agent is required to transfer or deliver under this Agreement, provided that the Validation Agent is not responsible for any damage to or loss or destruction of such Technical Information while in the custody of such delivery service.
- (e) The Validation Agent shall not retain any copies of any of the Technical Information in any form following delivery of the Technical Information by the Validation Agents as provided in Section 1(d) above, and any such copies that may then be in the possession or control of the Validation Agent shall be destroyed concurrently with any such delivery. The Validation Agent shall provide a certification of compliance with this section promptly upon completion of his services as provided herein.
- (f) The Validation Agent shall have no liability to any of the parties hereto for any actions taken or not taken by him as provided herein, except with respect to matters constituting gross negligence, fraud, bad faith or willful misconduct. So long as the

foregoing standard of conduct is met by a Validation Agent, such Validation Agent shall have no liability on account of actions or inactions pursuant to or in connection with this Agreement.

- (g) The Validation Agent shall be entitled to fees from Leonardo, Rossi and the Company as provided in Exhibit B attached hereto. The Validation Agent shall also be entitled to reimbursement for their reasonable expenses incurred in connection with their performance of this Agreement. Leonardo, Rossi and the Company shall be jointly and severally liable to the Validation Agent for the payment of such fees and expenses; provided, however, that among themselves, Leonardo and Rossi, on the one hand, shall be responsible for fifty percent (50%) of such fees and expenses, and the Company, on the other hand, shall be responsible for fifty percent (50%) of such fees and expenses.

2. Confidentiality.

- (a) The Validation Agent shall maintain and protect the Technical Information as valuable proprietary and confidential information, using at least the same high level of care that he would use to protect his own valuable confidential information or trade secrets and in no event less than a reasonable degree of care. Except as and to the extent expressly required or permitted by this Agreement or otherwise authorized in writing by Rossi, Leonardo and the Company, the Validation Agent shall not:
 - (i) disclose the existence of this Agreement or the nature or any details of his services hereunder, or
 - (ii) disclose, transfer, make available or provide access to the Technical Information or contents of this Agreement to any person other than authorized employees of the Validation Agent, each of whom shall have been advised of the confidential nature of such information and shall have agreed in writing to hold the Technical Information in strict confidence as provided herein and to use such Technical Information only for purposes of performance by the Validation Agent of his duties on this Agreement, with Validation Agent to be responsible for any breach of this Agreement by his own employees; or
 - (iii) use the Technical Information in any manner or permit any person to use the Technical Information or take any action relating to the Technical Information, except as expressly provided for in this Agreement.
- (b) Notwithstanding Section 2(a) or any other provisions of this Agreement, if the Validation Agent is legally compelled to disclose or release any information or materials comprising or relating to the Technical Information or the contents of this Agreement, the Validation Agent shall give prompt written notice of this fact to Rossi, Leonardo and the Company unless such notice is prohibited by applicable Law, and shall reasonably cooperate with Rossi, Leonardo and the Company as they may request (at the expense of Rossi, Leonardo and the Company) in undertaking to maintain the confidentiality of the Technical Information or to prohibit its wrongful use or disclosure.



3. Representations and Warranties.

(a) The Validation Agent represents and warrants that:

- (i) other than being a party to this Agreement, he is an independent third party and not an affiliated, associated or related entity to Rossi or Leonardo;
- (ii) he has the right and capacity to enter into this Agreement and fully perform all of his obligations and provide the services provided for under this Agreement; and
- (iii) all performance by or on behalf of the Validation Agent under this Agreement shall be conducted in good faith with no less than a reasonable degree of care.

(b) Leonardo and Rossi, jointly and severally, each hereby represents and warrants:

- (i) Leonardo and/or Rossi are the sole and exclusive legal and beneficial owners of the entire right, title, and interest in and to the Technical Information.
- (ii) the Technical Information constitutes all of the intellectual property necessary or useful in order for the Company to develop, manufacture, make, have made, use, have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all the products deriving from the E-Cat IP.

4. Covenants and Agreements.

Leonardo and Rossi hereby grant to the Validation Agent all rights and licenses necessary to allow the Validation Agent to lawfully perform his obligations under this Agreement. The Validation Agent agrees, however, that he shall not acquire any right, title or interest in the Technical Information or any other confidential information disclosed to the Validation Agent in connection with this Agreement, except for the limited right to use such information solely to perform the duties of the Validation Agent as specified herein.

5. Miscellaneous.

- 5.1 **Notices.** All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be given personally, or sent by certified or registered mail, postage prepaid, return receipt requested, or sent for next Business Day delivery by Federal Express or another generally recognized courier service. Any such notice shall be deemed to have been given (a) when received, if delivered in person, or (b) on the next Business Day, if sent by prepaid Federal Express or other generally recognized courier service for next Business Day deliver, or (c) three (3) Business Days following the mailing thereof, if mailed by registered or certified first class U.S. mail, postage prepaid, return receipt requested, in each such case to the respective addresses of the parties as set forth on the signature pages hereto (or to such other address or addresses as a party may have advised the others by notice given in compliance with this section). A copy of all notices shall also be sent via e-mail to the e-mail addresses indicated on the signature pages hereto, but the failure to give any such e-mail notice shall not affect notice otherwise validly given as provided in this section.

- 5.2 **Assignment.** No party to this Agreement shall assign or otherwise transfer any of its rights, or delegate or otherwise transfer any of its obligations or performance under this Agreement, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the other party's prior written consent.
- 5.3 **Entire Agreement.** This Agreement (including the Exhibits and Schedules hereto) and the other agreements, certificates and documents specifically incorporated herein by reference thereto, or delivered pursuant to this Agreement contain the entire agreement among the parties with respect to the transactions described herein, and supersede all prior agreements, written or oral, with respect thereto.
- 5.4 **Waivers and Amendments.** This Agreement may be amended, superseded, canceled, renewed or extended, and the terms hereof may be waived, only by a written instrument signed by the Parties or, in the case of a waiver, by the Party waiving compliance. No delay on the part of any Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof.
- 5.5 **Governing Law and Dispute Resolution.** This Agreement shall be construed and enforced under the laws of the State of Florida without regard to the conflicts of law principles thereof that would defer to or result in the application of the substantive laws of another jurisdiction. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, may be asserted or litigated in any State or Federal Court sitting in Miami, Florida, USA, which the parties agree shall have jurisdiction to hear any such matter, without limiting any other jurisdictions where such matter may be properly heard.
- 5.6 **Force Majeure.** Neither Party shall be liable for any delay in the performance of its obligations hereunder to the extent such delay is due to events beyond its reasonable control including without limitation, acts of God, fire, flood or other natural catastrophe, acts of any government in its sovereign capacity (including but not limited to any rule, law, order, regulation or direction thereof, or of any department, agency or commission thereof), national emergencies, insurrections, riots, war or hostile activities, quarantine restrictions, embargoes, launch failures, strikes, lockouts, work stoppages or other labor difficulties and sun eclipse or solar outages; provided, that notice thereof is given to the other Party within thirty (30) days of the later to occur of such event and the date that the Party being affected by such event obtains actual knowledge of such event.
- 5.7 **Further Assurances.** Each Party shall do and execute, or arrange for the doing and executing of, each necessary act, document and thing to implement this Agreement.
- 5.8 **No Third-Party Beneficiaries.** This Agreement is for the sole benefit of the parties hereto and their respective permitted successor and [permitted] assigns and nothing herein, express or implied, is intended to or shall confer on any

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other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement

- 5.9 **Variations in Pronouns.** All pronouns and any variations thereof refer to the masculine, feminine or neuter, singular or plural, as the context may require.
- 5.10 **Headings, References.** The headings in this Agreement are for reference only, and shall not affect the interpretation of this Agreement. All references herein to Sections, subsections, clauses, Exhibits, and Schedules shall be deemed references to such parts of this Agreement, unless the context shall otherwise require.
- 5.11 **Exhibits and Schedules.** The following Exhibits and Schedules are attached to this Agreement and incorporated herein:

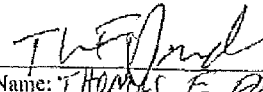
[Signatures on next page]

A handwritten signature in black ink, appearing to be a stylized 'J' or 'K' followed by a surname.

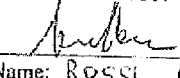
IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby, have duly executed this License Agreement on the date first above written.

IPH INTERNATIONAL B.V.

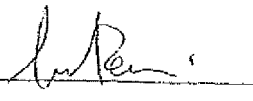
By: IPH Management, LLC, Managing Director

By: 
Name: THOMAS F. DARDEN
Title: MANAGER
Address for Notices:
111 East Hargett Street, Suite 300
Raleigh, NC 27601
Email: tdarden@industrialheat.co

LEONARDO CORPORATION

By: 
Name: ROSSI ANDREA
Title: CEO AND PRESIDENT
Address for Notices:
Andrea Rossi
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

ROSSI


Andrea Rossi
Address for Notices:
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

VALIDATION AGENT:


Ruggero Giunti


Address for Notices:

Via Forlì 14
57016 Rosignano Solvay (Livorno)
Italy


IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby, have duly executed this License Agreement on the date first above written.

IPH INTERNATIONAL B.V.


By: IPH Management, LLC, Managing Director

By: 
Name: THOMAS F. DARDEN
Title: MANAGER
Address for Notices:
111 East Hargett Street, Suite 300
Raleigh, NC 27601
Email: tdarden@industrialheat.co


LEONARDO CORPORATION

By: 
Name: ANDREA ROSSI
Title: CEO AND PRESIDENT
Address for Notices:
Andrea Rossi
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

ROSSI


Andrea Rossi
Address for Notices:
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

VALIDATION AGENT:


Ruggero Giunti

Address for Notices:

Via Forli 14
57016 Rosignano Solvay (Livorno)
Italy

EXHIBIT A

IP Verification Notice

Leonardo Corporation
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

IPH International B.V.
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

IP VERIFICATION NOTICE

DATED: _____, 2013

Ruggero Giunti, as the Validation Agent under that certain Validation Agreement dated as of April 29, 2013, together with any amendments thereto, by and among Leonardo Corporation, Andrea Rossi, IPH International B.V. and the undersigned (the "Validation Agreement") (all capitalized terms used herein and not otherwise defined shall have the same meanings assigned to them in the Validation Agreement), and pursuant thereto does hereby certify to IPH, Leonardo and Rossi as follows:

The Technical Information includes all information and materials that, in the professional judgment of the Validation Agent, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula.

WITNESS the following signatures as of the date first above written.

VALIDATION AGENT:

Ruggero Giunti

[Handwritten signature]

81
EXHIBIT B

Dott. Ing. Ruggero Giunti
 Albo dell'Ordine degli Ingegneri della Provincia di Livorno n. 1476
 Via Forlì n. 14
 57016 Rosignano Solvay (LI)
 Codice Fiscale GNTRGR59C311192N
 Cell. 0039 340 10 89 204

Egregia Azienda,

Dopo colloquio intercorso con il Vs. Ing. Fabiani, esplicativo al fine del mio eventuale incarico professionale da parte Vs., Vi sottopongo la seguente offerta di collaborazione:

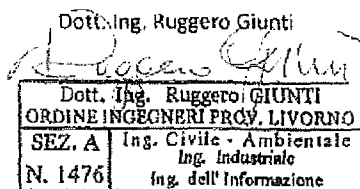
La collaborazione consta in offrire la mia opera come Ingegnere incaricato della revisione della documentazione tecnica riguardante il modello/prototipo MW1-Ecat al fine di verificare se completa ed in grado di fornire esaustive informazioni al fine della duplicazione del suddetto prototipo (ad esclusione del segreto industriale interno ai "reattori").

Tale revisione comporterà una relazione nella quale indicherò se la documentazione presa in esame risulta essere esaustiva o necessita di documentazione aggiuntiva (specificando la tipologia della documentazione mancante).

In tal caso rimarrò a Vs. disposizione per esaminare la nuova documentazione e redigere la dichiarazione di completezza della documentazione tecnica a me consegnata che io trasmetterò direttamente al Vs. Cliente al momento della Vs. richiesta.

Per tale opera professionale, comprensiva di ore/lavoro al fine dell'esame della documentazione e delle varie relazioni e dichiarazioni, sono qui a richiedere un compenso di 2.000,00 (Duemila) Euro al netto delle tasse.

Nell'attesa dell'accettazione da parte Vs. della presente offerta, vogliate accettare i miei più cordiali saluti.



X ACCETTAZIONE E INCARICO: AUTORIZZAZIONE



E.F.A. srl
 Sede Legale: Viale G. Mazzini 55
 cap. 00185 - Roma
 Stabilimento: Via del Commercio 36
 cap. 44123 Ferrara
 C.F./P.IVA 02826711208

FABIANI



E.F.A. S.R.L.
 Amministratore Unico
 (Dott.ssa Maddalena Pascucci)




EXHIBIT A

IP Verification Notice

Leonardo Corporation
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

IPH International B.V.
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

IP VERIFICATION NOTICE

DATED: MAY 10, 2013

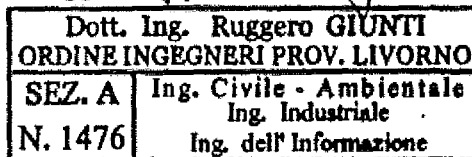
Ruggero Giunti, as the Validation Agent under that certain Validation Agreement dated as of April 29, 2013, together with any amendments thereto, by and among Leonardo Corporation, Andrea Rossi, IPH International B.V. and the undersigned (the "Validation Agreement") (all capitalized terms used herein and not otherwise defined shall have the same meanings assigned to them in the Validation Agreement), and pursuant thereto does hereby certify to IPH, Leonardo and Rossi as follows:

The Technical Information includes all information and materials that, in the professional judgment of the Validation Agent, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula.

WITNESS the following signatures as of the date first above written.

VALIDATION AGENT:


Ruggero Giunti



ESCROW AGREEMENT

THIS ESCROW AGREEMENT (the "Agreement") is made as of April 29, 2013 by and among IPH International B.V., an entity organized under the laws of the Netherlands ("IPH"), Leonardo Corporation, a New Hampshire corporation ("Leonardo"), Andrea Rossi ("Rossi"); and Henry W. Johnson, attorney-at-law (the "Escrow Agent").

RECITALS:

A. This Agreement is entered into in connection with acquisition and licensing of certain property and rights by IPH pursuant to that certain License Agreement dated as of October 26, 2012, together with any amendments thereto, by and among Industrial Heat, LLC ("Industrial"), Leonardo, Rossi and Ampcnergo, Inc. (the "License Agreement"). All capitalized terms used in this Agreement and not otherwise defined shall have the same meanings assigned to them in the License Agreement.

B. In the License Agreement, Industrial agreed to deposit the sum of \$10,000,000 with an agreed upon escrow agent, to be disbursed as provided in the License Agreement and pursuant to a mutually agreed upon Escrow Agreement.

C. Industrial has assigned its rights and obligations under the License Agreement to IPH.

D. The parties have agreed to enter into this Escrow Agreement as contemplated by the provisions of the License Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

ARTICLE I ESCROW

1.1 Escrow Deposit. Concurrently with the execution of this Agreement, IPH shall deliver to Escrow Agent, pursuant to the provisions of the License Agreement, the sum of Ten Million and 00/100 Dollars (\$US 10,000,000.00) (the "Escrow Deposit") in the form of immediately available funds pursuant to the wire transfer instructions attached as Exhibit A. Upon receipt of the Escrow Deposit, Escrow Agent shall transmit a written confirmation of receipt thereof to IPH, Leonardo and Rossi. The Escrow Deposit shall be segregated from other assets of the Escrow Agent and held by the Escrow Agent in accordance with the terms and conditions hereinafter set forth. The Escrow Deposit shall be deemed for all purposes to have been delivered by IPH to the Escrow Agent to be held subject to the terms and conditions set forth in this Agreement. Subject to the provisions of this Agreement, the Escrow Agent shall invest the Escrow Deposit in a non-interest bearing account at Bank of America, N.A in the name of Escrow Agent. The Escrow Deposit shall for all purposes be considered property of IPH unless and until delivered to Leonardo as provided herein and in no event shall any part of the Escrow

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Deposit be delivered to any party other than IPH except as explicitly provided under Section 1.2(a), Section 2.4 or Section 2.5 of this Agreement.

1.2 Disbursement of the Escrow Deposit. Unless otherwise directed in a joint written instruction from IPH, Leonardo and Rossi, the Escrow Deposit shall be held and disbursed by Escrow Agent, subject to and in accordance with the terms of this Agreement, as follows:

(a) Upon receipt of a written IP Verification Notice in the form attached hereto as Exhibit B executed by Ruggero Giunti (the "Validation Agent") on or before May 31, 2013, Escrow Agent shall promptly deliver the Escrow Deposit to Leonardo and shall deliver written notice to the Validation Agent, IPH and Rossi stating that the Escrow Deposit has been delivered to Rossi.

(b) In the event that the Validation Agent does not deliver an IP Verification Notice to the Escrow Agent as provided in Section 1.2(a) on or before May 31, 2013, Escrow Agent shall deliver the Escrow Deposit to IPH or as otherwise directed by IPH in writing and shall deliver written notice to Leonardo and Rossi that the Escrow Deposit has been so delivered.

(c) Unless otherwise directed in writing by the recipient, delivery by Escrow Agent of any funds as required pursuant to this Agreement shall be in US Dollars through a wire transfer of immediately available funds, that (i) if to IPH, shall be in accordance with the wire transfer instructions attached hereto as Exhibit C and (ii) if to Leonardo, shall be in accordance with the wire transfer instructions attached hereto as Exhibit D.

ARTICLE II RIGHTS AND RESPONSIBILITIES OF ESCROW AGENT

2.1 Duties. Escrow Agent shall have no responsibility except for the performance of its expressed duties under this Agreement and no additional duties shall be inferred from this Agreement or implied by this Agreement. The permissive right or power to take any action shall not be construed as a duty to take action under any circumstances and Escrow Agent, its employees and agents, shall not be liable to anyone by reason of any error of judgment or for any act done or step taken or omitted by Escrow Agent, or for any mistake of fact or law or anything that Escrow Agent may do or refrain from doing in connection with this Agreement, unless caused by or arising out of Escrow Agent's gross negligence, bad faith or willful misconduct. Escrow Agent may consult with duly licensed United States legal counsel of its choosing and shall be fully protected in any action taken in good faith in accordance with advice of such counsel.

2.2 Reliance. Escrow Agent may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by Escrow Agent to be genuine and to have been signed or presented by the proper party or parties or their designees.

2.3 Actions. Escrow Agent shall not be required to institute or defend any action involving any matters referred to in this Agreement or which affect it or its duties or liabilities under this Agreement or the Escrow Deposit unless or until requested to do so by Leonardo, Rossi or IPH and then may do so in its sole discretion only upon receiving full indemnity, in form and

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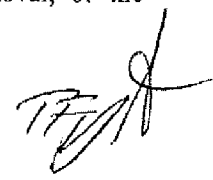
substance satisfactory to Escrow Agent, against any and all claims, liabilities and expenses in relation such action. Escrow Agent is expressly authorized, at its sole discretion, to obey and comply with all writ, orders, judgments or decrees made or entered in connection with the Escrow Deposit by any United States federal or state court.

2.4 Disputes. In the event of any dispute among or between any of the parties in connection with Escrow Agent or its duties, or Escrow Agent becomes involved in or is threatened with litigation by reason of this Agreement, Escrow Agent may at its election: (a) continue to hold the Escrow Deposit and not distribute the Escrow Deposit except in accordance with Section 1.2 of this Agreement; (b) act or refrain from acting in respect to any matter referred to in this Agreement in full reliance upon and by and with the advice of counsel selected by it and shall be fully protected in so acting or in refraining from acting upon the advice of such counsel; (c) continue to hold the Escrow Deposit until it receives a final order by a court of competent jurisdiction directing the disposition of the Escrow Deposit; (d) deposit the Escrow Deposit with the Clerk of Court in the county in which any litigation is pending; (e) resign as provided under Section 2.5 below; or (f) commence an interpleader action in a court of competent jurisdiction and pay the Escrow Deposit to such court. Upon Escrow Agent doing the actions permitted under either subsection (c), (d), (e) or (f) above, its duties, responsibilities, and liabilities with respect to the Escrow Deposit shall terminate.

2.5 Resignation Upon thirty (30) days' written notice to IPH, Leonardo and Rossi, Escrow Agent may resign from its duties under this Agreement. From and after the expiration of such notice, the only obligation of the Escrow Agent shall be to deliver the Escrow Deposit to a successor escrow agent designated in writing by IPH, Leonardo and Rossi, against a written acceptance by such successor of the duties of the Escrow Agent as provided. Thereafter, references under this Agreement to the Escrow Agent shall refer to such successor. In the event of the resignation of the Escrow Agent, (a) IPH, Leonardo and Rossi shall mutually appoint a successor escrow agent who, upon receipt of the Escrow Deposit, shall assume the obligations and duties of the Escrow Agent under this Agreement, or (b) if IPH, Leonardo and Rossi are unable to agree upon a successor, then Escrow Agent may deliver the Escrow Deposit to the Clerk of Court, Palm Beach County, Florida and upon either of such events, Escrow Agent shall be relieved of further duties and liabilities under this Agreement.

2.6 Indemnity. IPH, Leonardo and Rossi, jointly and severally, agree to indemnify and hold Escrow Agent harmless against any costs, expenses, damages or judgments (including reasonable attorneys' fees and expenses, costs of investigation, court costs, or costs of any interpleader action which Escrow Agent may file in its sole discretion), incurred by Escrow Agent resulting from any and all judicial, non-judicial or administrative actions, hearings or processes, claims, demands, causes of action, settlements or liabilities, for any act or failure to act in connection with this Agreement, excepting, however, Escrow Agent's gross negligence, bad faith or willful misconduct. Escrow Agent shall not be obligated to risk its own funds in the administration of the Escrow Deposit. Escrow Agent need not take any action under this Agreement which may involve it in any expense or liability until indemnified to its satisfaction for any expense or liability it reasonably believes it may incur. The indemnification obligations of IPH, Leonardo and Rossi shall survive Escrow Agent's resignation or removal, or the termination of this Agreement.

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2.7 Compensation and Expenses of Escrow Agent. Escrow Agent shall be entitled to fees in the amount of \$5,000.00 and to reimbursement for the reasonable expenses actually incurred by it in connection with its duties under this Agreement. All such fees and expenses shall be invoiced periodically by Escrow Agent and shall be an equally shared obligation of IPH on the one hand and Rossi and Leonardo, on the other.

ARTICLE III MISCELLANEOUS

3.1 Entire Agreement. This Agreement constitutes the entire agreement among the parties in connection with the Escrow Deposit.

3.2 Notices. Any notice required or allowed under this Agreement shall be in writing and shall be deemed given when delivered personally, mailed by certified mail, return receipt requested (postage prepaid), or sent by an overnight delivery service (charges prepaid), and addressed to the following:

If to Rossi:

Andrea Rossi
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

With a copy (which shall not constitute notice) to:

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

If to Leonardo:

Leonardo Corporation
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

If to IPH:

IPH International B.V.
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

With a copy (which shall not constitute notice) to:

Handwritten signature and initials, possibly "A" and "IPH", in black ink.

Thomas C. Watkins, Esq.
230 North Elm Street, Suite 1500
Greensboro, North Carolina 27401

If to Escrow Agent:

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

If to Validation Agent:

Ruggero Giunti
Via Forli 14
57016 Rosignano Solvay (Livorno)
Italy

or to any other address as the parties may from time to time designate in writing by notice as given herein.

3.3 Assignment. This Agreement and the rights and duties hereunder shall be binding upon and inure to the benefit of the parties and the successors and permitted assigns of each of the parties. No rights, obligations or liabilities hereunder shall be assignable by any party without the prior written consent of the other party.

3.4 Amendment. This Agreement may be amended or modified only by an instrument in writing duly executed by Escrow Agent, IPH, Leonardo and Rossi.

3.5 Waivers. Any waiver by any party of any breach of or failure to comply with any provision of this Agreement by any other party shall be in writing and shall not be construed as, or constitute, a continuing waiver of such provision, or a waiver of any other breach of, or failure to comply with, any other provision of this Agreement.

3.6 Construction. This Agreement shall be construed and enforced in accordance with and governed by the laws of the State of Florida without giving effect to the choice of law provisions thereof that may direct the application of the laws of another jurisdiction. Any proceedings to enforce this Agreement shall be commenced in a court of competent jurisdiction in the State of Florida. The parties agree not to assert or interpose any defenses, and do hereby waive the same, to the conferral of personal jurisdiction and venue by such court in any suit, action or proceeding. The headings in this Agreement are solely for convenience of reference and shall not be given any effect in the construction or interpretation of this Agreement.

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3.7 Third parties. Nothing expressed or implied in this Agreement is intended, or shall be construed, to confer upon or give any person or entity other than IPH, Escrow Agent, Leonardo and Rossi, and their respective permitted successors and assigns, any rights or remedies under, or by reason of, this Agreement.

3.8 Attorneys Fees/Costs of Suit. If either IPH, Leonardo or Rossi institutes a legal action against the other with respect to the Escrow Deposit, the prevailing party shall be entitled to its attorneys' fees and costs of suit, including the cost of any appeals.

3.9 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed any original and all of which together shall constitute a single instrument.


3.10 Severability. If any provision in this Agreement is held to be invalid, illegal, or unenforceable, this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had not been contained herein, provided that the provision held to be invalid, illegal, or unenforceable is not central to the purpose of this Agreement to provide the terms and conditions for the holding and disbursement of the Escrow Deposit in accordance with the provisions of the License Agreement.

3.11 Contract Interpretation. The parties acknowledge that both parties have caused this Agreement to be reviewed and approved by legal counsel of their own choice, or have consciously chosen not to seek such counsel. This Agreement has been specifically negotiated, and any presumption that an ambiguity contained in this Agreement shall be construed against the party that caused this Agreement to be drafted shall not apply to the interpretation of this Agreement.

3.12 Termination. This Agreement shall terminate upon the disbursement of all of the Escrow Deposit in accordance with the terms hereof.

IN WITNESS WHEREOF, IPH, Escrow Agent, Leonardo and Rossi have executed this Agreement as of the day and year first written above.

LEONARDO CORPORATION


By: 
Name: ROSSI ANDREA
Title: CEO AND PRESIDENT

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IPH INTERNATIONAL B.V.

By: IPH Management, LLC, Managing Director

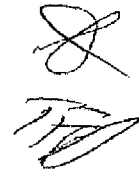
By: 

Name: THOMAS F. DARDEN

Title: MANAGER


Andrea Rossi

Henry W. Johnson
Escrow Agent



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EXHIBIT A

Escrow Agent Wire Transfer Instruction

Bank of America
1401 N. University Drive
Coral Springs, Florida

ABA #: 026009593
SWIFT CODE: BOFAUS3N

For Further Credit to:
Law Office Henry W. Johnson
WIRE TRANSFER IOTA ACCOUNT
Account No. 229048234635

A handwritten signature in black ink, appearing to be 'LHJ' or similar, located at the bottom right of the page.

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EXHIBIT B

IP Verification Notice

Leonardo Corporation
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

IPH International B.V.
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

IP VERIFICATION NOTICE

DATED: _____, 2013

Ruggero Giunti, as the Validation Agent under that certain Validation Agreement dated as of April 29, 2013, together with any amendments thereto, by and among Leonardo Corporation, Andrea Rossi, IPH International B.V. and the undersigned (the "Validation Agreement") (all capitalized terms used herein and not otherwise defined shall have the same meanings assigned to them in the Validation Agreement), and pursuant thereto does hereby certify to IPH, Leonardo and Rossi as follows:

The Technical Information includes all information and materials that, in the professional judgment of the Validation Agent, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula.

WITNESS the following signatures as of the date first above written.

VALIDATION AGENT:

Ruggero Giunti

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EXHIBIT C

IPH Wire Transfer Instruction

First Citizens Bank
239 Fayetteville Street
Raleigh, NC 27601
Routing - 053100300
Acct. # - 000863041836

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EXHIBIT D

Leonardo Wire Transfer Instruction

Leonardo Corporation
c/o TD Bank, Lincoln Road, Miami Beach, FL 33139
Account # 4255412937
Swift code NRTHUS33 4255412937
Routing # 067014822

Leonardo Corporation
1331 Lincoln Rd., Ste 601
Miami Beach, FL 33139

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IPH INTERNATIONAL B.V.

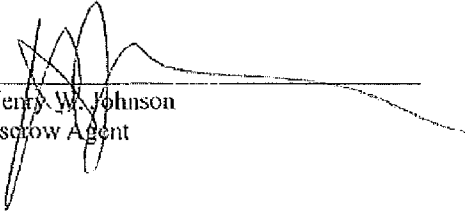
By: IPH Management, LLC, Managing Director

By: _____

Name: _____

Title: _____

Andrea Rossi



Henry W. Johnson
Escrow Agent

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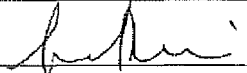
CERTIFICATE

The undersigned, **LEONARDO CORPORATION**, a New Hampshire corporation ("Leonardo"), and **ANDREA ROSSI** ("Rossi") each hereby certifies to **IPH INTERNATIONAL, B.V.**, an entity organized under the laws of The Netherlands (the "Company"), that the representations and warranties of Leonardo and Rossi contained in the License Agreement dated October 26, 2012, by and between Leonardo, Rossi, Industrial Heat, LLC and AmpEnergio, Inc., as amended (the "Agreement"), based on a current review of such representations and warranties, are true and correct as of the date of this Certificate, as if made on the date hereof, and further, that such representations and warranties will remain true and correct on and as of the date US \$10,000,000 is delivered to the Escrow Agent as provided in Section 3.2(b) of the Agreement. Capitalized terms used herein without definition shall have the meanings given them in the Agreement.

IN WITNESS WHEREOF, the undersigned has caused this certificate to be executed as of this 29th day of April, 2013.

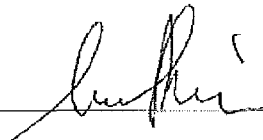
LEONARDO CORPORATION

By: ANDREA ROSSI

Name: 

Title: CEO AND PRESIDENT

ROSSI


Andrea Rossi

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**FIRST AMENDMENT TO
LICENSE AGREEMENT**

THIS FIRST AMENDMENT TO LICENSE AGREEMENT (this "**Amendment**"), is made and entered into as of April 29, 2013 by and among LEONARDO CORPORATION, a New Hampshire Corporation ("**Leonardo**"), ANDREA ROSSI ("**Rossi**"), AMPENERGO, INC., an Ohio corporation ("**AEG**"), and INDUSTRIAL HEAT, LLC, a Delaware limited liability company (the "**Company**"). Each of Leonardo, Rossi, AEG and the Company are referred to herein as a "**Party**" and collectively as the "**Parties**."

WHEREAS, the Parties entered into that certain License Agreement effective as of October 26, 2012 (the "**Agreement**"), and desire to amend the Agreement in certain respects. Capitalized terms used herein without definition have the respective meanings set forth in the Agreement.

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Amendment. The Agreement is hereby amended as follows:

A. Section 3.2(a) of the Agreement is hereby amended to delete the fourth sentence in its entirety and replace it with the following:

"The Plant will be available for Validation and delivery on April 30, 2013 (unless otherwise agreed in writing by the Company and Leonardo) and will be delivered to the location specified by the Company, at Leonardo's expense, within thirty Business Days following Validation."

B. Section 4 of the Agreement is hereby amended to delete the second and third sentences of Section 4 in their entirety and to replace them with the following:

"The Validation will be made in the factory of Leonardo in Ferrara, Italy on April 30th and May 1st 2013 (unless otherwise agreed in writing by the Company and Leonardo)." "Validation" will be deemed successful and achieved when the expert responsible for such validation ("ERV") certifies that the performance standards for the Plant set forth in Exhibit A to this Amendment have been met.

C. Section 16.7 of the Agreement is hereby amended to delete it in its entirety and replace it with the following:

16.7 Assignment. Other than the Company's right to sublicense as provided in Section 1, neither Leonardo nor Rossi, nor the Company, shall assign or otherwise transfer any of its rights, or delegate or otherwise transfer any of its obligations or performance under this Agreement, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the other party's prior written consent provided that all Parties hereby consent to the assignment and transfer of this Agreement to one or more subsidiaries of the Company that are directly or indirectly wholly-owned by the Company. No delegation or other transfer will relieve

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Leonardo or Rossi or the Company of any of their obligations or performance under this Agreement. Any purported assignment, delegation or transfer in violation of this Section 16.7 is void. This Agreement is binding upon and inures to the benefit of the Parties and their respective permitted successors and assigns.

2. **No Other Changes.** Except as expressly provided herein, the Agreement remains in full force and effect and is ratified and confirmed by the parties to this Amendment.
3. **Counterparts.** This Amendment may be executed in counterparts, no one of which need contain the original signatures of all Parties, provided that one or more counterparts collectively shall contain the signatures of all Parties to this Amendment. Execution hereof by facsimile shall have the same force and effect as execution by original signature.

IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby, have duly executed this License Agreement on the date first above written.

[Signature page follows]



[Signature page to First Amendment to License Agreement]

INDUSTRIAL HEAT, LLC

By: 

Name: Thomas F. Darden

Title: Manager

Address for Notices:

111 East Hargett Street, Suite 300

Raleigh, NC 27601

Email:

LEONARDO CORPORATION

By: 

Name: ROSSI, ANDREA

Title: CEO AND PRESIDENT

Address for Notices:

Andrea Rossi

1331 Lincoln Rd., Apt. 601

Miami Beach, FL 33139

Email: con333@libero.it

ROSSI


Andrea Rossi

Address for Notices:

1331 Lincoln Rd., Apt. 601

Miami Beach, FL 33139

Email: con333@libero.it

AEG:

AmpEnergio, Inc.

By: 

Name: Karl Nassar

Title: President

Address for Notices:

4110 Sunset Boulevard

Steubenville, Ohio 43952

Email: crgcassarino67@gmail.com

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EXHIBIT A

Performance Standards for the Plant

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Exhibit A

E-Cat Validation Protocol

Description: Two separate units ("Unit A" and "Unit B"), each composed of a different set of 30 individual E-Cat reactors, will be tested for a period of 24 hours, per the schedule below. Subsequently, a Hot Cat unit will be tested for a period of 15 hours, as described below. For purposes concerning validation achievement, only the performance of Unit A will be considered. Unit B and the Hot Cat are being tested solely for purposes of further research and development.

Location: Factory of Leonardo Corporation, Ferrara, Italy

Schedule:

Unit A will be tested 9:00 a.m. April 30th - 9:00 a.m. May 1st

Unit B will be tested 5:00 p.m. May 1st - 5:00 p.m. May 2nd

The Hot Cat unit will be tested 6:00 p.m. May 2nd - 9:00 a.m. May 3rd

The time of consideration will be the local time in Ferrara, Italy.

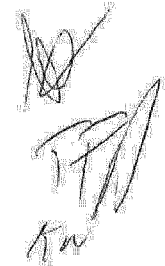
Unit A performance requirements: Unit A will be required to consistently produce energy that is at least six times greater than the energy it consumes (that is, a coefficient of performance "COP" of six or greater) and steam that is consistently 100 degrees Celsius or greater during a 24 hour test period.

Unit A test requirements: Prior to the test, the expert responsible for validation ("ERV") must provide Industrial Heat: 1) a list, including make, model and calibration, of all instruments used during the test; and 2) a detailed test protocol which describes, among other things, how the ERV will extract measurements and where he will place thermometers, manometers, flow meters and other such measuring instruments used during the test.

Activation and deactivation of the unit will occur before and after the 24-hour test period. Measurements outside the 24-hour test period will not be included for purposes of calculating the COP. The COP will be calculated as the ratio between generated energy and absorbed energy during the 24-hour period. In the event the individual reactors produce differing COPs, an average COP will be calculated and used for purposes of determining the COP.

The ERV will measure the flow of the heated fluid and the Delta T between the temperature of the fluid before and after the E-Cat reaction. The energy absorbed by the unit will be determined by measuring the electricity consumed. From these measurements, the ERV will determine the COP of the unit.

At the conclusion of the test, the ERV will produce a final report showing the results.

Handwritten signature and initials, possibly "IH" and "K", in the bottom right corner of the page.

ASSIGNMENT AND ASSUMPTION OF LICENSE AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION OF LICENSE AGREEMENT (this "Assignment") is made effective as of April 29, 2013, by and between **INDUSTRIAL HEAT, LLC**, a Delaware limited liability company (the "Assignor"), and **IPH INTERNATIONAL BV**, a Netherlands company (the "Assignee").

WHEREAS, the Assignor, **LEONARDO CORPORATION**, **ANDREA ROSSI**, and **AMPENERGO, INC.**, entered into that certain License Agreement dated as of October 26, 2012, as amended by that certain First Amendment to License Agreement dated as of April 26, 2013 (as amended, the "Agreement");

WHEREAS, the Assignor desires to assign the Agreement to the Assignee and the Assignee desires to accept such assignment and to assume all obligations of the Assignor under the Agreement;

WHEREAS, the Assignee is, indirectly, a wholly-owned subsidiary of the Assignor and Section 16.7 of the Agreement permits the assignment as provided herein;

NOW, THEREFORE, in consideration of the above premises, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Recitals and Exhibits. The Recitals set forth above are material and are incorporated into and made a part of this Assignment.
2. Assignment. The Assignor hereby transfers and assigns to the Assignee all right, title and interest of the Assignor in and to the Agreement.
3. Acceptance and Assumption. The Assignee hereby accepts the assignment of the Agreement and assumes all of Assignor's obligations under the Agreement.
4. Binding Effect. This Assignment shall inure to the benefit of, and be binding on, each of the parties hereto and their respective successors and assigns. This Assignment represents the entire agreement of the parties with respect to the subject matter hereof.
5. Counterparts. This Assignment may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.
6. Governing Law. This Assignment and any claim, controversy or dispute arising under or related to this Assignment shall be governed by and construed in accordance with the laws of the State of Florida.

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7. Further Assurances.

A. Assignor hereby agrees to provide to the Assignee such further assurances as may be reasonably requested by the Assignee at any time from and after the date hereof with respect to the Agreement and the assignment thereof to Assignee as provided herein, and, without limiting the foregoing, shall execute and deliver such affidavits, certificates and other instruments with respect to the Agreement as may be reasonably requested by the Assignee.


B. The Assignee hereby agrees to provide to Assignor such further assurances as may be reasonably requested by the Assignor at any time from and after the date hereof with respect to the Agreement and the assignment thereof to Assignee as provided herein, and, without limiting the foregoing, shall execute and deliver such affidavits, certificates and other instruments with respect to the Agreement as may be reasonably requested by the Assignor.

IN WITNESS WHEREOF, the Assignor and the Assignee have executed this Assignment effective the day and year first above written.

ASSIGNOR:

Industrial Heat, LLC

By:


Thomas P. Darden
Manager

ASSIGNEE:

IPH International BV

By: IPH Management, LLC, Managing Director

By:

Title:


MANAGER

*Copy
Infile & Home?*

SECOND AMENDMENT TO LICENSE AGREEMENT

THIS SECOND AMENDMENT TO LICENSE AGREEMENT (this "Amendment"), is made and entered into as of October _____, 2013 by and among LEONARDO CORPORATION, a New Hampshire Corporation ("Leonardo"), ANDREA ROSSI ("Rossi"), AMPENERGO, INC., an Ohio corporation ("AEG"), and INDUSTRIAL HEAT, LLC, a Delaware limited liability company (the "Company"). Each of Leonardo, Rossi, AEG and the Company are referred to herein as a "Party" and collectively as the "Parties."

WHEREAS, the Parties entered into that certain License Agreement effective as of October 26, 2012, as amended by that certain First Amendment to License Agreement entered into as of April 29, 2013 (as amended, the "Agreement"), and desire to amend the Agreement in certain respects. Capitalized terms used herein without definition have the respective meanings set forth in the Agreement.

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Amendment.** Section 5 of the Agreement is hereby amended to delete it in its entirety and replace it with the following:

5. **Guaranteed Performance.**

Payment of the amount set forth in Section 3(c) above is contingent upon a six cylinder Hot Cat unit reasonably acceptable to the Company (the "Six Cylinder Unit") operating at the same level (or better) at which Validation was achieved for a period of 350 days (even if not consecutive) within a 400 day period commencing on the date agreed to in writing between the Parties ("Guaranteed Performance"). Each of Leonardo and Rossi will use their commercially reasonable best efforts to cause Guaranteed Performance to be achieved, including making repairs, adjustments and alterations to the Six Cylinder Unit as needed to achieve Guaranteed Performance. The ERV (or another party acceptable to the Company and Leonardo) will be engaged to confirm in writing the Guaranteed Performance. Guaranteed Performance will not be deemed achieved unless such written confirmation is received or waived by the Company. In the event Guaranteed Performance is not achieved within the time period set forth in this Section (as such time period may be extended by the Company in its sole discretion), but the ERV confirms that during such time period the Six Cylinder Unit consistently produced energy that is more than 2.6 times greater than the energy consumed by the Six Cylinder Unit and that the temperature of the steam produced by the Six Cylinder Unit was consistently 100 degrees Celsius or greater, then the amount payable by the Company pursuant to Section 3(c) above shall be reduced proportionally (based on a percentage rounded to two decimal places) to account for the reduction in the Energy Multiple (which shall be rounded to the nearest tenth), with the Energy Multiple of 6 (or greater) resulting in payment of 100% of the amount payable pursuant to Section 3(c) and the production of energy that is 2.6 (or less) times greater than the energy consumed by the Six Cylinder Unit resulting in zero being payable pursuant to Section 3(c), with the total purchase price

set forth in Section 3.1 to be reduced accordingly. If neither the foregoing standard nor Guaranteed Performance is achieved, the Company shall not be required to pay any amount pursuant to Section 3(c) above and the total purchase price set forth in Section 3.1 shall be reduced accordingly.


2. **No Other Changes.** Except as expressly provided herein, the Agreement remains in full force and effect and is ratified and confirmed by the parties to this Amendment.
3. **Counterparts.** This Amendment may be executed in counterparts, no one of which need contain the original signatures of all Parties, provided that one or more counterparts collectively shall contain the signatures of all Parties to this Amendment. Execution hereof by facsimile shall have the same force and effect as execution by original signature.

IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby, have duly executed this Second Amendment to License Agreement on the date first above written.

[Signature page follows]

[Signature page to Second Amendment to License Agreement]

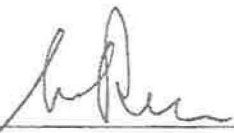
INDUSTRIAL HEAT, LLC

By: 
Name: Thomas F. Darden
Title: Manager
Address for Notices:
111 East Hargett Street, Suite 300
Raleigh, NC 27601
Email:

LEONARDO CORPORATION

By:
Name:
Title:
Address for Notices:
Andrea Rossi
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

ROSSI



Andrea Rossi
Address for Notices:
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

AEG:

AmpEnergo, Inc.

By:
Name:
Title:
Address for Notices:
4110 Sunset Boulevard
Steubenville, Ohio 43952
Email: crgcassarino67@gmail.com

**AMENDED AND RESTATED
ASSIGNMENT AND ASSUMPTION OF
LICENSE AGREEMENT**

THIS AMENDED AND RESTATED ASSIGNMENT AND ASSUMPTION OF LICENSE AGREEMENT (this "Agreement") is entered into as of September 12, 2014, by and between **INDUSTRIAL HEAT, LLC**, a Delaware limited liability company (the "Assignor"), and **IPH INTERNATIONAL B.V.**, a Netherlands company (the "Assignee").

WHEREAS, Assignor and Assignee entered into that certain Assignment and Assumption of License Agreement made effective as of April 29, 2013 (the "Assignment"), pursuant to which the Assignor assigned to the Assignee that certain License Agreement dated as of October 26, 2012, by and among Licensor, Leonardo Corporation, Andrea Rossi and AmpEnergio, Inc., as amended by that certain First Amendment to License Agreement dated as of April 26, 2013 (as amended, the "License Agreement");

WHEREAS, the Assignor and the Assignee desire to amend and restate the Assignment effective as of April 29, 2013, to clarify the agreement between them regarding the assignment of the License Agreement;

NOW, THEREFORE, in consideration of the above premises, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Recitals and Defined Terms. The Recitals set forth above are material and are incorporated into and made a part of this Agreement. Capitalized terms used herein without definition shall have the meanings given them in the License Agreement.
2. Assignment. In consideration of Assignee's agreement to pay to Assignor the sum of \$460,000 (the "Purchase Price") and to assume all obligations under the License Agreement as set forth below, the Assignor hereby sells, transfers and assigns to the Assignee, effective as of April 29, 2013, all right, title and interest of the Assignor in and to the License Agreement; provided however, that the Plant is excluded from such transfer and assignment and shall remain the property of Assignor.
3. Acceptance and Assumption. The Assignee hereby accepts the assignment of the License Agreement and assumes all of Assignor's obligations under the License Agreement.
4. Payment of Purchase Price. The Assignee hereby agrees to pay to Assignor the Purchase Price on or before April 29, 2016, in accordance with the terms of the promissory note attached hereto as Exhibit A (the "Note"). Assignee shall deliver the executed Note concurrent with delivery of this Agreement.
5. Binding Effect. This Agreement shall inure to the benefit of, and be binding on, each of the parties hereto and their respective successors and assigns. This Agreement and the Note represent the entire agreement of the parties with respect to the subject matter hereof.

6. Counterparts. This Assignment may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

7. Governing Law. This Assignment and any claim, controversy or dispute arising under or related to this Assignment shall be governed by and construed in accordance with the laws of the State of Florida.

8. Further Assurances.

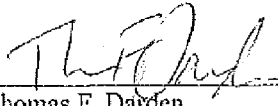
A. Assignor hereby agrees to provide to the Assignee such further assurances as may be reasonably requested by the Assignee at any time from and after the date hereof with respect to the License Agreement and the assignment thereof to Assignee as provided herein, and, without limiting the foregoing, shall execute and deliver such affidavits, certificates and other instruments with respect to the License Agreement as may be reasonably requested by the Assignee.

B. The Assignee hereby agrees to provide to Assignor such further assurances as may be reasonably requested by the Assignor at any time from and after the date hereof with respect to the License Agreement and the assignment thereof to Assignee as provided herein, and, without limiting the foregoing, shall execute and deliver such affidavits, certificates and other instruments with respect to the License Agreement as may be reasonably requested by the Assignor.

IN WITNESS WHEREOF, the Assignor and the Assignee have executed this Amended and Restated Assignment and Assumption of License Agreement effective the day and year first above written.

ASSIGNOR:

Industrial Heat, LLC

By: 
Thomas F. Darden
Manager

ASSIGNEE:

IPH International B.V.

By: IPH Management, LLC, Managing Director

By: 
Thomas F. Darden
Manager

EXHIBIT A

PROMISSORY NOTE

Promissory Note

\$460,000

April 29, 2013

FOR VALUE RECEIVED, the undersigned, IPH International B.V., an entity organized under the laws of the Netherlands (the "Borrower"), promises unconditionally to pay to the order of Industrial Heat, LLC, a Delaware limited liability company (the "Creditor"), at such place as Creditor may from time to time designate, the principal amount of Four Hundred Sixty Thousand and 00/100 Dollars (\$460,000) (the "Principal Amount"), together with interest on the unpaid Principal Amount outstanding from time to time at the rate or rates hereafter specified and any and all other sums which may be owing to Creditor by Borrower pursuant to this Promissory Note, and any modifications, renewals, extensions or replacements thereof (the "Note"). The following terms shall apply to this Note:

1. **Nature of Debt.** This Note is given on September 12, 2014 to memorialize and evidence Borrower's obligation incurred effective as of April 29, 2013 to pay to Creditor the purchase price for the License Agreement assigned to Borrower on April 29, 2013, as set forth in the Amended and Restated Assignment and Assumption of License Agreement being entered into by Borrower and Creditor concurrent herewith.

2. **Interest Rate.** Interest shall accrue from April 29, 2013 at the rate of Twenty Two One Hundredths percent (0.22%) per annum on an actual/360 basis (on the actual number of days elapsed over a year of 360 days) until this Note is paid in full.

3. **Default Interest Rate.** Upon an "Event of Default," as hereafter defined, Creditor, in Creditor's sole discretion and without notice or demand, may raise the rate of interest accruing on the outstanding Principal Amount to the lesser of (a) the highest contract rate, if any, permitted by applicable law or (b) a rate per annum of two (2) percentage points above the rate of interest otherwise applicable, independent of whether Creditor elects to accelerate the unpaid principal balance as a result of such default. Such default interest rate shall continue, in Creditor's sole discretion, until all defaults are cured.

4. **Principal and Interest Repayments.** Accrued interest is payable on the last business day of each calendar quarter beginning December 31, 2014. The outstanding Principal Amount and all accrued and unpaid interest is due and payable in full on April 29, 2016 (the "Maturity Date").

5. **Repayment Extension.** If any payment of principal or interest shall be due on a Saturday, Sunday or any other day on which banking institutions in the State of North Carolina are required or permitted to be closed, such payment shall be made on the next succeeding business day and such extension of time shall be included in computing interest under this Note.

6. **Late Charge.** Time is of the essence of this Note. If any payment of interest in whole or in part due under this Note is not received by Creditor within five (5) days after its due date, Creditor, in Creditor's sole discretion and without notice or demand, may charge Borrower a late charge equal to four percent (4%) of the late payment. The late payment charge shall be payable to Creditor on demand. Such late charge shall be in addition to, and not in lieu of, any other right or remedy Creditor may have, including the right to receive principal and interest and to reimbursement of costs and expenses.

7. **Manner and Application of Payments.** All payments due hereunder shall be paid in lawful money of the United States of America in immediately available funds, without offset, deduction or recoupment. Any payment by check or draft shall be subject to the condition that any receipt issued therefor shall be ineffective unless the amount due is actually received by Creditor. Each payment shall be applied first to the payment of any and all costs, fees and expenses incurred by or payable to Creditor in connection with the collection or enforcement of this Note, second to the payment of all unpaid late charges (if any), third, to the payment of all accrued and unpaid interest hereunder and fourth, to the payment of the unpaid Principal Amount, or in any other manner which Creditor may, in its sole discretion, elect from time to time.

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8. **Prepayment.** This Note may be prepaid in whole or in part at any time without premium or penalty, provided that each payment shall be accompanied by payment of all unpaid costs, fees, expenses and late charges, if any, which are due plus all accrued and unpaid interest due as of the date of such prepayment.

9. **Events of Default.** The occurrence of any one or more of the following events shall constitute an "Event of Default" under this Note:

(a) the failure of Borrower to pay any sum due under this Note when due, whether by demand or otherwise;

(b) the filing by or against Borrower of any petition for bankruptcy relief or any similar action for relief from the obligations of the Borrower;

(c) the making of an application for the appointment of a custodian, trustee or receiver for, or of a general assignment for the benefit of creditors by Borrower;

(d) the insolvency of Borrower or the failure of Borrower generally to pay debts as such debts become due;

(e) any representation or information contained in any financial statement or any other document given by Borrower to Creditor shall not in all material respects be true and complete when made;

(f) the determination in good faith by Creditor that the prospect of payment of any of the indebtedness under the Note is materially impaired.

10. **Rights and Remedies upon Default.** Upon the occurrence of an Event of Default hereunder, Creditor, in Creditor's sole discretion and without notice to Borrower may: (a) declare the entire outstanding Principal Amount, together with all accrued interest and all other sums due under this Note, to be immediately due and payable, and the same shall thereupon become immediately due and payable without presentment, demand or notice, which are hereby expressly waived; (b) exercise its right of setoff against any money, funds, credits or other property of any nature whatsoever of Borrower now or at any time hereafter in the possession of, in transit to or from, under the control or custody of or on deposit with, Creditor; (c) terminate any outstanding commitments of Creditor to Borrower; and (d) exercise any or all rights, powers and remedies now or hereafter existing at law, in equity, by statute or otherwise.

11. **Remedies Cumulative.** Each right, power and remedy of Creditor hereunder, or now or hereafter existing at law, in equity, by statute or otherwise shall be cumulative and concurrent, and the exercise or beginning of the exercise of any one or more of them shall not preclude the simultaneous or later exercise by Creditor of any or all such other rights, powers or remedies. No failure or delay by Creditor to insist upon the strict performance of any one or more provisions of this Note or to exercise any right, power or remedy consequent upon a breach thereof or default hereunder shall constitute a waiver thereof or preclude Creditor from exercising any such right, power or remedy. By accepting full or partial payment after the due date of any amount of principal of or interest on this Note, or other amounts payable on demand, Creditor shall not be deemed to have waived the right either to require prompt payment when due and payable of all other amounts of principal of or interest on this Note or other amounts payable on demand, or to exercise any rights and remedies available to it in order to collect all such other amounts due and payable under this Note.

12. **Collection Expenses.** If this Note is placed in the hands of an attorney for collection following the occurrence of an Event of Default hereunder, Borrower agrees to pay to Creditor upon demand all costs and expenses, including, without limitation, reasonable attorneys' fees (based on the usual and customary charges of the attorneys engaged and without reference to any statutory presumption based on a percentage of the amount owed hereunder) and all court costs incurred by Creditor in connection with the enforcement or collection of this Note (whether or not any action has been commenced by Creditor to enforce or collect this Note) or in successfully defending any counterclaim or other legal proceeding brought by Borrower contesting Creditor's right to collect the

amounts outstanding. All of such costs and expenses shall bear interest at the higher of the rate of interest provided herein or any default rate of interest provided herein, from the date of payment by Creditor until repaid in full.

13. **Interest Rate after Judgment.** If judgment is entered against Borrower on this Note, the amount of the judgment entered (which may include principal, interest, fees and costs) shall bear interest at the higher of: (a) the rate of interest provided herein; (b) any default rate of interest provided herein; or (c) the legal rate of interest then applicable to judgments in the jurisdiction in which judgment was entered.

14. **Certain Waivers by Borrower.** Borrower waives demand, presentment, protest and notice of demand, of non-payment, of dishonor and of protest of this Note. Creditor, without notice to or further consent of Borrower and without in any respect compromising, impairing, releasing, lessening or affecting the obligations of Borrower hereunder may: (a) release, surrender, waive, add, substitute, settle, exchange, compromise, modify, extend or grant indulgences with respect to this Note and (b) grant any extension or other postponements of the time of payment hereof.

15. **Choice of Law.** This Note shall be governed by, construed and interpreted in accordance with the laws of the State of Delaware, United States of America (excluding the choice of law rules thereof).

16. **Miscellaneous.** The paragraph headings of this Note are for convenience only, and shall not limit or otherwise affect any of the terms hereof. This Note constitutes the entire agreement between the parties with respect to its subject matter and supersedes all prior letters, representations or agreements, oral or written, with respect thereto. No modification, release or waiver of this Note shall be deemed to be made by Creditor unless in writing signed by Creditor, and each such waiver, if any, shall apply only with respect to the specific instance involved. No course of dealing or conduct shall be effective to modify, release or waive any provisions of this Note. This Note shall inure to the benefit of and be enforceable by Creditor and Creditor's successors and assigns and shall be binding upon and enforceable against Borrower and Borrower's successors and permitted assigns. Whenever used herein, the singular number shall include the plural, the plural the singular, and the use of the masculine, feminine or neuter gender shall include all genders. This Note may be executed in any number of counterparts, all of which, when taken together shall constitute one Note.

[Signature page follows]

IN WITNESS WHEREOF, Borrower has duly executed this Note under seal as of the day and year first hereinabove set forth.

IPH INTERNATIONAL B.V.

By: IPII Management, LLC, Managing Director

By: _____
Thomas F. Darden
Manager

1 UNITED STATES DISTRICT COURT
2 SOUTHERN DISTRICT OF FLORIDA
3)
4 ANDREA ROSSI and LEONARDO)
5 CORPORATION,)
6)
7 Plaintiffs,)
8)
9 VS.)
10) No. 1:16-cv-2119-CMA
11 THOMAS DARDEN; JOHN T. VAUGHN;)
12 INDUSTRIAL HEAT, LLC; IPH)
13 INTERNATIONAL B.V.; and)
14 CHEROKEE INVESTMENT PARTNERS,)
15 LLC,)
16)
17 Defendants.)
18 INDUSTRIAL HEAT, LLC and IPH)
19 INTERNATIONAL B.V.,)
20)
21 Counter-Plaintiffs,)
22)
23 Vs.)
24)
25 ANDREA ROSSI and LEONARDO)
CORPORATION,)
Counter-Defendants,)
And)
J.M. PRODUCTS, INC.; HENRY)
JOHNSON; FABIO PENON; UNITED)
STATES QUANTUM LEAP, LLC;)
FULVIO FABIANI; and JAMES)
BASS,)
Third-Party Defendants.)

Videotaped Deposition of
THOMAS DARDEN
(Taken by Plaintiff)
3509 North Haworth Drive, Suite 403, Raleigh, North Carolina
February 16, 2017
Reported in Stenotype By
Leslie Christian
Transcript produced by computer-aided transcription

1 THE WITNESS: Well, people often would
2 ask me to speak about Cherokee's activities and so I
3 would talk to -- let me see what this was used for but
4 -- I don't know if this was a fund raising document,
5 you know, talking to other investors.

6 Back at the back it says, "Industrial
7 Heat Challenge. Industrial Heat is raising an
8 additional 20 million in order to" -- this process. I
9 don't know if that was -- and, you know, we talked
10 about organization, Industrial Heat, who are we,
11 founded by Tom Darden CEO of Cherokee. We talk about
12 the separate Cherokee entities here. And so I don't
13 know if this was a fund raising document or something
14 -- a presentation to some group.

15 So I will speak occasionally to
16 environmental groups; organizations that have an
17 interest in carbon, air pollution, issues like that.
18 And, you know, they might be -- you know, if they're
19 familiar, if they've heard about what we're doing of
20 course they're all curious because this would be a
21 solution to important environmental problems that we
22 have.

23 And I often will accept those
24 opportunities to speak. I think it's a -- you know,
25 something that we're -- we've been proud to be involved

1 **Raleigh, North Carolina 27601.**

2 Q. Is that where you live?

3 **A. That's my office address.**

4 Q. Can I have your home address, please.

5 **A. 2351 Hales Road, Raleigh 27608.**

6 Q. How long have you lived there?

7 **A. Thirty years approximately.**

8 Q. And do you have an e-mail address?

9 **A. Yes, I do.**

10 Q. Do you have several e-mail addresses?

11 **A. Yes.**

12 Q. Can you please provide those.

13 **A. Tdarden@industrialheatco,**
14 **tdarden@cherokeefund.com, tfdarden@aol.com,**
15 **tfdarden@yahoo.com.**

16 Q. Can you please briefly describe your post
17 high school education.

18 **A. I went to UNC Chapel Hill in North Carolina**
19 **-- University of North Carolina, Chapel Hill, and**
20 **studied mostly liberal arts and environmental policy.**
21 **I have a bachelor's degree. I then attended graduate**
22 **school in city planning, urban planning. I studied**
23 **pollution technology, urban pollution cleanup -- or**
24 **urban pollution waste management, landfills, sewage**
25 **treatment, etc.**

1 I then went to law school at Yale and
2 studied a general law program plus a fair number of
3 courses associated with environment or kind of
4 management and private -- public sector management sort
5 of city planning-related type of management issues.
6 And that's my education.

7 MR. BELL: Brian, did somebody just
8 join the call?

9 MR. CHAIKEN: Did someone join?

10 MR. BELL: Maybe that was just Rudy.

11 MR. CHAIKEN: Rudy said he was going
12 to be on and off.

13 MR. BELL: Okay.

14 MR. NUNEZ: Yes, that was me. This is
15 Rudy. I inadvertently called on.

16 (BY MR. CHAIKEN)

17 Q. Are you currently a member of any state
18 bar?

19 A. I am inactive. So I initially was a member
20 of the North Carolina Bar but I went inactive.

21 Q. And when did you go inactive?

22 A. A long time ago. Like, not long after I
23 joined the bar. I was not practicing law. I never
24 practiced law and I never -- I didn't want -- when they
25 put in the continuing legal education requirements I

1 chose not to spend the time doing that so I went
2 inactive.

3 Q. Understood. Are you currently employed?

4 A. Yes.

5 Q. By whom are you currently employed?

6 A. I work for Cherokee Investment Partners. I
7 also work on behalf of a number of the different
8 venture deals that we've invested in.

9 (Whereupon Exhibit 1 was marked for
10 identification as of this date.)

11 Q. Got it. I'll show you what's been marked
12 as Exhibit Number 1 to your deposition today. Exhibit
13 Number 1 is a document that's been bates stamped
14 IH-113114. It's a flowchart. Have you ever seen this
15 document before?

16 A. I don't know if I've seen this particular
17 one, but I've seen other charts that show some of this
18 organization structure.

19 Q. Okay. I kind of want to go through some of
20 these entities on this page and get an understanding as
21 to whether or not you have a position in these
22 companies. And we'll just start at the top with the
23 big triangle which is IH Holdings International Limited
24 (UK). Are you familiar with that entity?

25 A. Yes, I am familiar with that entity.

1 Q. Are you a director of that entity?

2 A. I don't know the precise titles that are
3 used for that company, but I believe the answer is yes.

4 Q. Okay. Are you an officer of that company?

5 A. I believe that I am an officer of that
6 company.

7 Q. Does the officer have a specific title?

8 A. I don't remember the title there.

9 Q. Okay. As an officer and/or director are
10 you a person who makes decisions on behalf of that
11 company?

12 A. Yes.

13 Q. Is there anybody else who does make
14 decisions on behalf of that company?

15 A. Well, J.T. Vaughn has been involved in
16 decision-making associated with that company. I don't
17 remember what his specific role there is.

18 Q. Anybody else?

19 A. Well, legal counsel would be involved in
20 making decisions associated with the structure. Price
21 Waterhouse as our accounting firm would be involved in
22 that. So other service providers. It's a holding
23 company so it's not very active.

24 Q. Okay. Well, as I phrase my questions I'm
25 going to ask similar questions with respect to all of

1 the entities. But I understand you may have legal
2 counsel or accounting firms advise the management team,
3 but ultimately I'm only asking about people who are
4 either officers, directors or otherwise in a position
5 to make decisions on behalf of the company.

6 **A. Right, right.**

7 Q. Next one on the far left, IPHBV Holdings
8 Limited. Are you a director of a company?

9 **A. I don't remember who the directors and**
10 **officers are of each of the different subsidiaries. I**
11 **think I'm probably going to answer all of them that**
12 **way.**

13 Q. Okay. So just looking at this entire
14 structure here, you believe but are not positive that
15 you're a director of all of these entities?

16 **A. No. I don't think I'm a director of all**
17 **these entities, but I don't know -- I don't know the**
18 **personnel for each of these entities.**

19 Q. I see. Well, and I guess I --

20 **A. If you had a chart that showed each of the**
21 **names I could probably confirm if it's likely that that**
22 **person is, but I don't know specifically each of the**
23 **entities and its current officers and directors.**

24 Q. I see. Well, I guess we have to go through
25 them one by one based on what you're telling me unless

1 you can identify certain companies on this list that
2 are not -- that you definitely know that you're not a
3 director or officer.

4 MR. BELL: Well, some of them are
5 irrelevant so why don't you just ask about the ones you
6 care about.

7 (BY MR. CHAIKEN)

8 Q. Well, we talked about IPHBV Holdings
9 Limited. Are you an officer of that company?

10 A. I don't remember whether I'm an officer or
11 director of that company. I believe that I am.

12 Q. Okay. Are you a decision-maker on behalf
13 of that company?

14 A. Well, through my capacity as a
15 decision-maker for the parent company then, you know,
16 there are certain decisions that the parent company
17 would be involved in for that, but I would have some
18 influence over decisions that are made there.

19 Q. Anybody else besides yourself?

20 A. Well, J.T. Vaughn also. In some cases Jim
21 Fogleman would have some input into some of these.

22 Q. Okay. Anyone else?

23 A. And Ben Van Wyk.

24 Q. Who's that?

25 A. Ben Van Wyk.

1 Q. Okay.

2 A. So there's a Dutch guy who's involved in
3 that company as well.

4 Q. Understood. IPH International BV. Are you
5 a director?

6 A. I would answer the same about that entity.
7 I can't remember. Oh, I'm sorry. Ben Van Wyk. I
8 thought that was the Dutch company. You were
9 discussing IPHBV Holdings (UK)?

10 Q. Right.

11 A. So I don't know the -- I would answer the
12 same regarding the IPH International and IPHBV. I
13 don't know who plays which role vis-à-vis of those two
14 different companies.

15 Q. Okay. Industrial Heat, LLC. Are you a
16 director of that company?

17 A. I don't know that it has directors as an
18 LLC.

19 Q. Member. Are you a member of that company?

20 A. I believe that Industrial Heat, LLC is
21 wholly owned.

22 Q. By IH Holdings International?

23 A. By their parent company. And so I thought
24 that it had only one member. I'm not completely
25 certain that's correct.

1 Q. Are you a manager of Industrial Heat, LLC?

2 A. I believe that I am an officer or a manager
3 of that company.

4 Q. Is there a specific title?

5 A. I don't remember the title.

6 Q. Are you a decision-maker for Industrial
7 Heat, LLC?

8 A. Well, at least through my capacity as being
9 involved in decisions at the parent company. At least
10 indirectly, but I would have some influence there.

11 Q. Is anybody else a decision-maker?

12 A. J.T. Vaughn.

13 Q. Now, I understand that this structure was
14 put in place in approximately May of 2015; is that
15 correct?

16 A. I didn't remember that date, but that would
17 probably make sense.

18 Q. Prior to the structure being put in place
19 were you still a director and/or officer of Industrial
20 Heat, LLC?

21 A. I would have to look at the records for the
22 different times. I don't remember the organization
23 structure details.

24 Q. I believe Industrial Heat, LLC was formed
25 in 2012. Does that sound right?

1 **A. Makes sense.**

2 Q. Is there any point in time that you --
3 based on your recollection that you were not an officer
4 or director of Industrial Heat, LLC?

5 **A. I don't remember not being. I don't**
6 **remember that.**

7 Q. Okay. There's a few other entities that
8 I'm really not concerned about other than just to
9 understand what your role is. L Holdings, LLC.

10 MR. BELL: What's the question?

11 MR. CHAIKEN: Is he an officer or
12 director?

13 **THE WITNESS: I don't remember.**

14 (BY MR. CHAIKEN)

15 Q. New Heat, LLC?

16 **A. Also don't remember.**

17 Q. Are both of those companies wholly owned by
18 IH Holdings International Limited?

19 **A. I believe that both of those are wholly**
20 **owned. I believe, but I would want to consult with our**
21 **attorneys or accountants to confirm that.**

22 Q. What about IHJ Holdings Limited?

23 **A. I would also want to consult with our**
24 **accountants about the precise structure there. It's a**
25 **complicated structure that we relied heavily on limited**

1 **settings.**

2 Q. Okay. You say you're currently working for
3 Cherokee Investment Partners; is that correct?

4 **A. Yes.**

5 Q. Is there -- are you an owner of that
6 company?

7 **A. Yes, I am an owner of that company.**

8 Q. What percentage ownership do you have?

9 **A. I think it's 56 percent.**

10 Q. Are there other Cherokee-related entities
11 that you are an owner of?

12 MR. BELL: Objection to form.

13 **THE WITNESS: There are other Cherokee**
14 **entities that have "Cherokee" in the name that I'm an**
15 **owner of.**

16 (BY MR. CHAIKEN)

17 Q. Okay. Approximately how many?

18 **A. Ten.**

19 MR. BELL: Same objection.

20 **THE WITNESS: I would have to think**
21 **about it and count, but several.**

22 (BY MR. CHAIKEN)

23 Q. Okay. And what is the general business
24 that these entities are engaged in?

25 MR. BELL: Objection to form.

1 THE WITNESS: Well, to pick some
2 specifically -- some of the entities specifically --
3 Cherokee Investment Partners, LLC is in the business of
4 finding investment opportunities, helping with the due
5 diligence and the analysis of the investment
6 opportunity and helping to arrange the financing for
7 that.

8 We have other Cherokee entities. For
9 example, Cherokee Advisors plays a role as the manager
10 or the advisor to one of our -- one or two of our
11 investment funds advise environmentally contaminated
12 real estate. There's some other Cherokee-named
13 entities that are relatively inactive now, but at least
14 from the past there was one called Cherokee
15 Environmental Realty Associates, the purpose of which
16 was to buy or to consult about the purchase of
17 environmentally contaminated real estate.

18 There was one called Cherokee
19 Environmental Group that is -- it's not operating
20 currently but dealing with polluted land. There is one
21 called Cherokee Instruments that was set up to build
22 and then distribute pollution control equipment for
23 measuring pollution. So there have been a number of
24 different Cherokee entities.

25 Q. And when did you first start operating --

1 or when was the first Cherokee entity formed?

2 **A. 1984.**

3 Q. And since 1984 you made -- you -- I say
4 "you," I'm going to say the entities that you have
5 formed have invested in whether it be environmentally
6 -- what's the word I'm looking for.

7 Environmentally-harmed properties.

8 **A. Contaminated land.**

9 Q. Contaminated properties. That was the
10 word. Thank you. Have any of the funds or any of the
11 entities that you have formed ever filed for
12 bankruptcy?

13 **A. Some entities that we have formed have**
14 **filed for bankruptcy.**

15 Q. Do you know which ones?

16 **A. We had a -- we had a property that we owned**
17 **in New Jersey -- I don't remember the name of the**
18 **entity -- that in the financial crisis filed for**
19 **bankruptcy probably 2008 or so. I don't remember the**
20 **name of that. It was some entity that was owned by one**
21 **of the funds. So that's an example of one. I'm trying**
22 **to think of others. There could be another one, but**
23 **it's not coming to mind right now.**

24 Q. Did you ever hear of an entity called
25 Ashley 1 or Ashley 2? Is that what you're speaking of?

1 A. Yes. Well, so that was an entity that held
2 property that was in South Carolina in the financial
3 crisis. And I couldn't remember that it filed for
4 bankruptcy or not, but it did own property. It was in
5 the financial crisis, and it definitely was deeply
6 affected by the financial crisis.

7 Q. What about a company called N-CAP?

8 A. That was the one that was in New Jersey
9 that I was referring to.

10 Q. Got it. Do you know a gentleman by the
11 name of William Gauger, G-a-u-g-e-r?

12 A. Yes, yes; I know him.

13 Q. Who is he?

14 A. He was the guy who was the manager of the
15 N-CAP deal for us. So he brought us the N-CAP deal.

16 Q. Did you appoint him as the CEO of one of
17 your companies?

18 A. Well, he was the CEO of the deal at the
19 time that we invested in it. So I don't remember the
20 precise entity or whether there was some
21 reorganizations, but he was the guy who brought us the
22 deal. He owned it and we invested into it.

23 Q. Got it. Did you do anything to prepare for
24 today's deposition?

25 A. Yes, I did.

1 Q. What did you do?

2 A. I read through some notes from -- past
3 notes or information that I had. I talked to counsel
4 some about the process or how it would go.

5 MR. BELL: I would just caution the
6 witness not to disclose the content of our
7 communications described there.

8 (BY MR. CHAIKEN)

9 Q. Did you review any deposition transcripts?

10 A. I did look at deposition transcripts from
11 J.T. Vaughn.

12 Q. Anybody else?

13 A. I started to look at John Mazzarino's but I
14 didn't get very far.

15 Q. Did you talk to anyone other than counsel?

16 A. Generally around the office we've talked a
17 fair amount about the case. So I would say whether
18 that was in preparation for the deposition or just in
19 general I don't know.

20 Q. Did you review the complaints and the Forth
21 Amended Answer, Additional Defenses and Counterclaims
22 filed in this case?

23 A. I did not review them before in preparation
24 for this deposition.

25 Q. Did you participate in helping draft

1 whether it be the First Answer and Counterclaims or any
2 of the subsequent amendments?

3 MR. BELL: Objection to form.

4 THE WITNESS: I reviewed at least. I
5 don't remember if I wrote any of the claims, but I
6 certainly reviewed them at the time.

7 (BY MR. CHAIKEN)

8 Q. Are you familiar with the allegations made
9 against my clients as well as the third-party
10 defendants in this case?

11 A. Generally. I don't remember them all
12 specifically.

13 Q. Is it your contention that they're all true
14 and correct? Everything that's been alleged?

15 A. I believe so.

16 Q. Are any of the claims brought by my clients
17 against -- whether it be you or any of the entities
18 that you have an interest in covered by any insurance
19 policies?

20 A. I'm not aware that they are.

21 Q. Have you asked -- well, let me ask it.
22 Does any of the entities that are defendants in this
23 case have insurance policies for which a claim has been
24 submitted?

25 A. I don't believe that we've filed -- that

1 we've submitted claims for any of these. I don't know
2 if we've noticed any insurance companies with respect
3 to any of the litigation. I don't know really the
4 distinction between those two. But, anyway, so I'm not
5 sure.

6 Q. You told me a little bit earlier you
7 founded Cherokee back in 1984; is that correct?

8 A. Yes.

9 Q. What was the original purpose for finding
10 or for founding Cherokee?

11 MR. BELL: Objection to form.

12 THE WITNESS: I started -- I started
13 -- Cherokee Sanford Group was the name of the initial
14 company, in order to purchase a series of struggling
15 brick manufacturing plants that used a lot of energy.
16 And the plan was to convert them to using alternative
17 energy -- saving costs and reducing pollution -- and I
18 did that.

19 They also had contaminated land. The
20 manufacturing plants had contaminated land, and I had
21 found some technology for using to clean up
22 contaminated land. And so that became Cherokee
23 Environmental Group. That led to a business of
24 cleaning up contaminated land. We used bacteria --
25 mostly used bacteria for that. I backed some

1 professors at Virginia Tech University who were soil
2 bacteria professors. And so we developed bacteria to
3 use for consuming pollution.

4 (BY MR. CHAIKEN)

5 Q. And after that you started investing in
6 similar things or more properties?

7 A. Yes. Just kept looking for additional new
8 technologies, other technologies that had some
9 environmental impact usually with some kind of
10 professor. I would back the professor, and we would
11 start a business to develop the technology.

12 But then also I saw some contaminated land
13 that we could purchase that was inexpensive. We bought
14 property outside Boston initially; Stanford,
15 Connecticut. And we could buy the land at cheap
16 prices. We could use our methods and knowledge to
17 clean it up and then we could sell the land.

18 So we kind of started with two different
19 business activities. Some were pollution technical and
20 some were land owning.

21 Q. And over time did you -- well, did you
22 trademark the name "Cherokee"?

23 A. I don't believe we ever trademarked it.
24 It's a fairly generic name around here. Actually,
25 there are a lot of companies named Cherokee around here

1 including other investment companies. There was
2 another brick company called Cherokee.

3 It was quite fascinating. These two
4 companies had co-existed for 50 years probably. The
5 predecessor Cherokee company and another brick company
6 that was called Cherokee that was in Georgia. There
7 were two companies.

8 Q. Do you currently have a website? A
9 Cherokee website?

10 A. Cherokee Investment Partners has a website.

11 Q. What's it called? What's the domain name?

12 A. Cherokeefund.com, I'm virtually certain. I
13 haven't been to it.

14 Q. Is there only one?

15 MR. BELL: Objection to form.

16 THE WITNESS: I don't remember that we
17 have another Cherokee entity website at this point.
18 We've had conversations in the past about whether we
19 should have multiple websites for the different
20 activities but I don't -- we might have a Cherokee
21 Gives Back website or it might be The Cherokee Gives
22 Back, which is our philanthropic branch. That may be a
23 subset of the Cherokee website so I'm not sure.

24 (BY MR. CHAIKEN)

25 Q. How did you first get introduced to Dr.

1 Q. I'm only worried about the e-mail on the
2 first page from you dated April 24th, 2013 to Dr. Rossi
3 cc'ing J.T. Vaughn and John Mazzarino. And the second
4 full paragraph of your e-mail states, "Here are my
5 thoughts. First, as we indicated, we can accept Fabio
6 Penon as the ERV, instead of BV."

7 A. Um-hm.

8 Q. Do you see that?

9 A. Yes.

10 Q. Did you, in fact, write that e-mail?

11 A. I assume that I did, yes.

12 Q. Is there any question in your mind that you
13 accepted Fabio Penon as the ERV?

14 MR. BELL: Objection to form.

15 THE WITNESS: That we accept him as
16 the ERV in this test. We either accepted him or we
17 said we were willing to pay notwithstanding that.

18 (BY MR. CHAIKEN)

19 Q. Well, do you contest what you wrote saying
20 specifically "we can accept"?

21 A. No, I don't. I don't contest that.

22 Q. Did you ever change your mind after you
23 wrote this e-mail?

24 MR. BELL: Objection to form.

25 THE WITNESS: That we had accepted him

1 But we wanted it to be tested in a manner
2 -- not a trick test. Not a test that was sort of
3 designed to be obfuscated but a test that was designed
4 to be extremely transparent where everybody -- we would
5 know. It would be clear to us that the technology
6 actually worked as opposed to the test where we weren't
7 able to get access to it, our instruments weren't -- we
8 weren't allowed to put separate instruments on it.

9 We were saying, "This is ridiculous. We've
10 got to know that this technology works." So we wanted
11 to continue working on it with him, notwithstanding
12 this prior behavior, to say, "Well, let's see if it
13 might work."

14 Q. So I think you said earlier that after this
15 test, the validation test -- and this took place in
16 approximately or approximately as of April 30th/May
17 1st, 2013; is that correct?

18 A. Um-hm.

19 Q. After the test concluded, Industrial Heat
20 did, in fact, make a 10 million dollar payment to
21 Leonardo; is that correct?

22 A. We did.

23 Q. Do you contend sitting here today that
24 Industrial Heat is entitled to return of those funds?

25 A. I think we are.

1 anyone ever could produce any energy with this IP is
2 not clear.

3 It's hard to prove a negative. It's sort
4 of hard to say this could not have any value
5 whatsoever. It's hard to say. But we -- we don't see
6 that this technology has value at all materially
7 relative to the kinds of numbers we were talking about
8 then.

9 Q. Do you think it has any value -- based on
10 that and based on what you know sitting here today, do
11 you think it has any value whatsoever?

12 A. We don't know. It's an option on future
13 value. Is it possible that someone in the future might
14 be able to do something with this IP. We can't; Rossi
15 can't. But is it possible that somebody might or that
16 occasionally at some point it might work. We don't
17 know.

18 MR. CHAIKEN: We can stop here. Off
19 the record.

20 THE VIDEOGRAPHER: We're off the
21 record at 11:14 a.m.

22 (Whereupon a break was taken.)

23 THE VIDEOGRAPHER: We are back on the
24 record at 11:26 a.m.

25 (BY MR. CHAIKEN)

1 Therefore, I'd say the end of August."

2 **A. Um-hm.**

3 Q. Do you think he was referring to -- or is
4 it your understanding that he was referring to the
5 shipment of the one megawatt plant from Italy to
6 Raleigh, North Carolina?

7 **A. I think probably so.**

8 Q. Was he -- did you have any conversation
9 with him after this e-mail where he said anything other
10 than, "I would like to start the test as soon as the
11 two containers arrive"?

12 **A. Well, once he began working on the other**
13 **units, the other devices, then he stopped working on**
14 **the -- getting this test going.**

15 Q. Got it. Is there anything in writing that
16 you put back to him saying, "Hey, we're ready to start
17 as soon as the shipment -- as soon as the containers
18 get here we're ready to start"?

19 **A. I mean, maybe this. But I don't know other**
20 **than that.**

21 Q. All right. Now, after you had made the
22 first payment -- the 1.5 million at the start of the
23 agreement --

24 **A. Um-hm.**

25 Q. And my understanding is if we want to go

1 through it we can. The license agreement. But the one
2 megawatt unit was then owned by Industrial Heat,
3 correct?

4 **A. I think so.**

5 Q. So Industrial Heat was able to control when
6 that equipment was started up, right?

7 **A. We could have started it ourselves, and we**
8 **actually talked about doing that a fair amount. Rossi**
9 **vehemently objected to that and said, "No, I need the**
10 **help working on these other devices." You know, he**
11 **didn't want us to start working on that.**

12 Q. But conversely could Dr. Rossi have started
13 up the plant without your consent? Yours being --

14 **A. That plant?**

15 Q. Yeah, that plant. The one megawatt.

16 **A. We owned it. I guess not. I mean, we**
17 **would have let him.**

18 (Whereupon Exhibit 16 was marked for
19 identification as of this date.)

20 Q. Right. I'll show you what's been marked as
21 Exhibit 16. Exhibit 16 is the Second Amendment to the
22 License Agreement. This is what you talked about
23 earlier about changing the timeframe and changing the
24 equipment for the purposes of the guaranteed
25 performance test?

1 **A. Um-hm.**

2 Q. And who drafted this document?

3 **A. I don't know.**

4 Q. Now, this is your signature on page three
5 of this document?

6 **A. Yes, I believe it is. Yes.**

7 Q. Now, at some point in time -- and this --
8 it's not dated. This is the -- it says on the first
9 page October, blank, 2013.

10 **A. Um-hm.**

11 Q. Do you know approximately when you signed
12 this?

13 **A. No, I don't know.**

14 Q. Do you know where you were when you signed
15 it?

16 **A. Um-um. Sorry. I don't know.**

17 Q. After you signed it did you send it to
18 Ampenergo?

19 **A. I'm trying to remember the details. Did we**
20 **send it or did Rossi send it or -- I can't remember the**
21 **details.**

22 Q. Did you have any conversations with
23 Ampenergo after you had signed the document?

24 **A. I'm sure we did.**

25 Q. I mean, who specifically at Ampenergo do

1 you recall speaking to?

2 **A. I don't remember the specifics. I remember**
3 **they didn't want to do it.**

4 Q. And did they ever explain to you why
5 they didn't want to sign this?

6 **A. No, we were -- we were confused about that.**

7 Q. Is there any reason that you're aware of
8 today as to why they would not want to sign?

9 **A. I don't remember the conversations around**
10 **that. I think J.T. might have been the one talking to**
11 **them.**

12 Q. Did you have discussions with Dr. Rossi
13 about Ampenergo's refusal to sign it?

14 **A. Yes, we did.**

15 Q. And what were those conversations?

16 **A. Well, they said, "Well, they didn't sign.**
17 **So, you know, I guess that deal is off or can't do**
18 **that."**

19 Q. So after that conversation took place did
20 you say, "Hey, listen, Ampenergo didn't sign. The
21 license agreement says you guys start the test as soon
22 as you get -- as soon as the equipment arrives;
23 therefore, you're in breach"?

24 **A. Yes. We said, "We don't owe you -- you**
25 **know, sorry. You missed the date. They don't agree to**

1 this so what are we going to do." We said to him, "We
2 would love to pay you some more money if we had
3 technology that worked. So why don't you think of some
4 other kind of test that we could do. We're willing to
5 pay you money if you -- if we can build devices and we
6 can operate those devises. We don't care how long it
7 is really." I mean, we care a little bit but, you
8 know, we're willing to be very malleable about that.
9 "Let's build some devices. Let's get something
10 operating." You know, but, I mean, the agreement
11 speaks for itself.

12 Q. Did you put that -- that subsequent offer
13 in writing?

14 A. I don't know. I mean, it was -- did we say
15 to him in writing somewhere, "We can't build these
16 units. We want to build these units. Help us build
17 these units. Let's get something going." I don't know
18 but we -- I'm sure that we said to him, "Andrea, the
19 problem is not money. We're happy to pay money if we
20 have technology that works. We don't have technology
21 that works. Help us get some technology working
22 somewhere and we're happy to pay you some money."

23 Q. Right. But did you ever say in writing,
24 "Hey, listen, the time for the test has now come and
25 gone. We need to reach some other arrangement. We're

1 happy to pay you money, but it's got to be under
2 different terms"?

3 MR. BELL: Objection to form.

4 THE WITNESS: I don't remember
5 specific writing about that. You know, we were in the
6 same office so we talked about a lot of this.

7 (BY MR. CHAIKEN)

8 Q. Did you -- after you had the conversation
9 with Dr. Rossi about Ampenergo not signing off did you
10 say, "Hey, you know what, Ampenergo didn't sign off.
11 Let's start the guaranteed performance test right away
12 because the clock is ticking and we made this
13 investment, and time is money"?

14 MR. BELL: Objection to form.

15 THE WITNESS: Well, we said all the
16 time, "We want to get something running." I'm sure
17 that we didn't say, "Let's start the guaranteed
18 performance test." You know, the time period for that
19 had passed.

20 Q. Got it. So it's your testimony today that
21 Dr. Rossi knew all along right after October 2013 that
22 his ability to enforce the 89 million dollar payment
23 pursuant to the license agreement had come and gone?

24 A. Yes. He knew that his ability to enforce
25 that had come and gone. We also told him that if we

1 had successful evidence after the technology worked,
2 that we approved devices that we built, we would be
3 happy to discuss paying you more money.

4 (Whereupon Exhibit 17 was marked for
5 identification as of this date.)

6 Q. I'm going to show you what's been marked as
7 Exhibit 17. Now, your counsel is going to object to
8 this document.

9 MR. BELL: Yeah, I am. So why are you
10 going to do it?

11 MR. CHAIKEN: Because I'm going
12 to make you object to it.

13 MR. BELL: Here's the problem that I
14 have with it -- and we can do it however you choose to
15 see fit. But our view is that this is clearly in
16 violation of the protective order. You're violating
17 court order by using -- attempting to use this at a
18 deposition when it's been clawed back under the
19 protective order and you're potentially subject to
20 sanctions for that.

21 MR. CHAIKEN: Okay.

22 MR. BELL: With that, do you still
23 want to mark it?

24 MR. CHAIKEN: Yes. And what I would
25 like to do is if you want to move for a protective

1 given access to all pending patent applications
2 included in the E-CAT IP or filed by Rossi afterwards."
3 Has your opinion changed since you wrote that or since
4 Industrial Heat wrote that?

5 **A. I don't know that -- had applications that**
6 **had been filed that we were not given. I don't know**
7 **either way. May or may not had been given all the**
8 **patent applications.**

9 Q. Sitting here today are you aware of any
10 pending patent applications or approved patent
11 applications that you had not been given by Rossi that
12 you were entitled to?

13 **A. I don't know whether he has filed any since**
14 **-- you know, since he went to Florida. So if he had**
15 **then we would be entitled to receive those. But I'm**
16 **not aware. I don't remember of any. None come to mind**
17 **right now.**

18 Q. Okay. Do you know if you ever told
19 investors as of July of 2014 that the results of the
20 validation tests in May of 2013 had resulted in a COP
21 of close to ten?

22 **A. We probably gave them the report.**

23 Q. Right. And did you ever tell potential
24 investors that the data in the process had been
25 reviewed by Industrial Heat?

1 the remedy is to rip it up, throw away all your notes
2 and make a motion to compel. I'm happy to, you know,
3 add this to the list and put this in camera with the
4 judge if he wants to see it. I think this is an
5 appropriate procedure.

6 It's not really -- the way a
7 protective order works isn't that you scrutinize the
8 document and make your own determination whether it's
9 privileged.

10 MR. CHAIKEN: Well, we can agree to
11 disagree or not. Maybe -- can we go off the record for
12 a second.

13 THE VIDEOGRAPHER: We are off the
14 record at 1:35 p.m.

15 (Whereupon a break was taken.)

16 THE VIDEOGRAPHER: We are back on the
17 record at 1:46 p.m.

18 MR. CHAIKEN: We have made an attempt
19 to reach out to Judge O'Sullivan to see if we can get a
20 quick ruling on this document. While we wait to see if
21 we can get him on the line we're going to proceed with
22 the deposition.

23 (BY MR. CHAIKEN)

24 Q. At some point in time, Mr. Darden, did
25 Industrial Heat agree to allow the one megawatt plant

1 to be shipped to Florida?

2 A. Yes.

3 Q. And why did it do that?

4 A. We felt like it would be beneficial for us
5 and it would be beneficial for Andrea if we could use
6 that as a way to see if the tech --

7 MR. CHAIKEN: Hello. Someone just
8 joined?

9 MR. ANNESSER: I just -- this is John
10 Annesser.

11 MR. CHAIKEN: Oh, hey, John.

12 (BY MR. CHAIKEN)

13 Q. I'm sorry.

14 A. We could use the -- the operation of the
15 unit as a way of seeing if, in fact, the technology
16 might work. In other words, we're still at a point of
17 not knowing which was true. Does it never work, can it
18 never work or has he simply concealed from us how to
19 make it work.

20 And so to see the technology operate would
21 be -- we were willing -- it was interesting enough to
22 us to see it operate -- if we could actually see it and
23 measure it -- that we were willing to let the plant go.
24 In addition, he could sell licenses off of it; he could
25 advocate for or promote the technology as he would.

1 that has the name Johnson Matthey in it that -- that
2 was produced in discovery.

3 (BY MR. CHAIKEN)

4 Q. Did you ever receive anything in writing
5 from Dr. Rossi where he said specifically that he was
6 purchasing products from Johnson Matthey?

7 A. I don't remember that.

8 Q. In the course of this case defendants have
9 produced over 65,000 pages of documents. I haven't
10 seen one which says specifically anything to the effect
11 of J.M. Chemical Products, Inc., is a subsidiary or
12 affiliate of Johnson Matthey. Is it your contention
13 that such a written document exists?

14 A. I know -- I don't know whether such a
15 written document exists.

16 Q. Okay. If it did exist it would have been
17 produced, correct?

18 A. I would assume that it would have.

19 Q. Okay. Now, you mentioned that pursuant to
20 this agreement, Industrial Heat would have been
21 entitled to \$365,000 per year, correct?

22 A. Yes.

23 Q. Did Industrial Heat ever seek to collect
24 that money?

25 A. After the plant got it -- no, we did not.

1 After the plant got installed in Florida and we saw
2 that Rossi had removed all of the instrumentation and
3 the monitoring access that we had, and as we realized
4 that he was restricting access to it so it was not
5 going to be a fully transparent bona fide test, at that
6 point we became very suspicious.

7 We realized that it was -- something bad
8 was going on down there. And we don't want to get
9 thrown in jail for participating in some kind of fraud
10 so we said we don't want to receive payment from them.

11 Q. What measurement equipment did you --

12 A. I don't know the details of it, but we had
13 put on access ports on places where instruments could
14 be put so that we could put our own instruments on it
15 and cut it all off.

16 Q. Who -- who knows more about that than you?

17 A. T. Barker knows about it.

18 Q. Anybody else?

19 A. Barry probably knows something about it.

20 Q. Did you ever inform Dr. Rossi and said,
21 "Hey, why are you removing all this measuring
22 equipment"?

23 A. We did talk about that.

24 Q. You talked about it. Did you ever send him
25 an e-mail and say, "Hey, why are you moving all this

1 A. We asked him some questions. His answers
2 were very unsatisfying and so -- unsatisfactory and so
3 at that point we stopped.

4 Q. That wasn't my question. My question was
5 did you reject the plan in writing?

6 A. I don't believe that we did.

7 Q. Why not?

8 A. We didn't accept it.

9 Q. Well, why wouldn't you reject it in writing
10 if you didn't agree with it?

11 A. We didn't care if he went ahead with his
12 measurements. And we were willing to pay even if they
13 were bad measurements.

14 Q. That doesn't sound like a good business
15 plan to me to pay for bad measurements.

16 A. We would have preferred --

17 MR. BELL: There's no question.
18 (BY MR. CHAIKEN)

19 Q. Why would you agree to pay for something
20 you didn't agree with?

21 A. Any data was better than no data, and we
22 figured our alternative was to get no data. We wanted
23 someone to be measuring something from the plant. We
24 didn't trust the data that we were getting from Fabio
25 and Rossi.

1 people are saying about the technology.

2 I perceived that this memo is from Brian
3 saying that what Rossi is saying is inappropriate.
4 He's gloating about the success of the technology when,
5 in fact, it's not being successful. We wouldn't want
6 to do that. That's the sort of thing that we find
7 aversive. So we would be inclined to say, and Brian
8 would be inclined to say, we would support Brian in
9 saying don't gloat about a technology that's still
10 extremely speculative.

11 Q. Did Industrial Heat start bringing visitors
12 to the plant in Doral?

13 A. Excuse me?

14 Q. Did Industrial Heat bring visitors to the
15 plant in Doral?

16 A. Yes, we did.

17 Q. For what purpose?

18 A. We had a lot of interest in -- in the -- in
19 the technology. And so there were people who wanted to
20 see it so we took -- there were some Chinese visitors
21 that wanted to come see it about the prospect of
22 becoming manufacturing partners in China, and Woodford
23 wanted to see it. The Woodford team wanted to see it.

24 Q. The Chinese people who visited, were they
25 interested in making an investment or a JD partnership?

1 Anything like that?

2 **A.** The real motivation was to take the
3 technology to China. They might have been interested
4 in or willing to invest in a U.S. company as well. But
5 their primary motivation was to be the partners for
6 developing the technology in China. And we said to
7 them, "We don't know if we have a technology that works
8 that we could use in China, but you're welcome to come
9 see it."

10 **Q.** I'm going to show you what's been marked as
11 Exhibit 38. Exhibit 38 is a copy of Industrial Heat's
12 -- it's a long-titled document so bear with me.
13 Supplemental -- Supplement to Defendant Industrial Heat
14 LLC's Amended Responses and Objections to Plaintiff
15 Andrea Rossi's Second Requests for Production -- that's
16 the wrong document. I'm sorry. They gave me the wrong
17 document.

18 **A.** Do you want it back?

19 **Q.** Yeah. Let me have it back. It's not what
20 I meant to hand you. Sorry about that.

21 MR. BELL: No worries.

22 (BY MR. CHAIKEN)

23 **Q.** They're all the same.

24 **A.** Hm?

25 **Q.** I said they're all the same. They're all

1 **A. Yes.**

2 Q. Have you done any type of calculation as to
3 how you've been damaged or how Industrial Heat has been
4 damaged as a result of these breaches?

5 **A. Well, we don't know yet what damages we**
6 **might have depending on whether someone is successful**
7 **with the technology.**

8 Q. So would it be fair to say you haven't made
9 a computation of damages?

10 **A. We have not made a computation. Sorry. I**
11 **didn't answer the question.**

12 Q. And you had mentioned some specific
13 instances where you felt that the nondisclosure had
14 been breached. Were there any others that come to mind
15 now that you've had a break?

16 **A. I didn't think about it any further. It's**
17 **not coming to mind right now, sir.**

18 Q. Okay. The second item mentioned in this
19 paragraph four on page 23 states, "Failing to assign
20 certain patents and/or patent applications to IPH." Do
21 you know specifically any patents or patent
22 applications that plaintiffs had failed to assign?

23 **A. I think there were several. I mean, our**
24 **counsel got involved in this, and I think we had**
25 **conversations with Rossi and/or his counsel's office.**

1 Q. Do you know sitting here today what those
2 are?

3 A. I don't remember, sitting here today.

4 Q. Do you know -- well, let me ask you this.
5 Do you contend that IPH still wants those patents or
6 patent applications?

7 A. I don't have a firm opinion about that
8 right now.

9 Q. Okay. Have you made any assessment of
10 damages as it relates to this breach?

11 A. I think the damages are contingent upon the
12 technology working or the patents or IP being effective
13 for someone else who makes the technology work. So if
14 someone else is effective then the breach will have
15 harmed us.

16 Q. But sitting here today has IPH or IH made
17 any attempt to calculate damages as it relates to that?

18 A. I don't believe that anyone in the company
19 has done that.

20 Q. When -- well, let me ask it this way. Did
21 IH or IPH ever notify plaintiffs that they felt that
22 this was a breach of the license agreement?

23 A. I believe that we did.

24 Q. Do you know when?

25 A. No, I don't remember the date.

1 A. I haven't seen the tax return, and I don't
2 have anything clearly documented that says he didn't
3 pay taxes except my recollection that he said that.

4 Q. "He" being someone from Ampenergo?

5 A. Well, Andrea.

6 Q. Andrea told you directly that he didn't pay
7 his taxes?

8 A. He said either he didn't pay the taxes or
9 he wasn't going to owe the taxes. And I couldn't
10 figure out how that could be the case because it was a
11 U.S. company.

12 Q. And how, in fact, has IH or IPH been harmed
13 as a result?

14 A. Well, our credibility is, unfortunately,
15 tied to Rossi's credibility. And so if Rossi has legal
16 problems or credibility problems associated with
17 compliance then it affects us.

18 Q. But sitting here today you don't know if
19 that's true or not?

20 A. I don't know if -- if it has been
21 manifested at this point. I don't know.

22 Q. And have you done anything to count -- to
23 compute what your actual damages are as a result of any
24 failure to pay taxes?

25 A. I don't believe that any of us -- I have

1 not, and I don't believe that others of us have made
2 such a computation.

3 MR. CHAIKEN: Anybody just join the
4 call?

5 MR. ARAN: Fernando here. I'm still
6 here. I'm not sure --

7 MR. CHAIKEN: We're going to keep
8 going. Somebody just join now?

9 MR. ANNESSER: This is John. I got
10 disconnected.

11 MR. CHAIKEN: Okay. Thanks for
12 announcing yourself.

13 (BY MR. CHAIKEN)

14 Q. Back -- back to my questions. I forgot to
15 ask Mr. Darden with respect to the third category,
16 "Failing to inform or consult with Industrial Heat and
17 IPH on the existence of certain patent applications."
18 How has -- or let me ask it this way. Has IP -- IH or
19 IPH computed how it's -- what its actual damages are as
20 a result of that allegation?

21 A. I don't believe that we've computed that.
22 We know how much money we've spent pursuing this
23 technology. If it jeopardized that then certainly it
24 would be the value of the money that we spent.

25 Q. Okay. There's one last paragraph there.

1 Mr. Fukuda about what IH technologies could do?

2 A. We certainly had conversations about the
3 different technologies that we were looking at so, yes,
4 generally. I'm sure that I never said to him that we
5 had good evidence of a system that generated a COP of
6 ten.

7 Q. Do you know if you ever had a conversation
8 with Dewey Weaver about that?

9 A. I don't know.

10 MR. BELL: I'm sorry. Are you asking
11 if Tom did or if Fukuda did?

12 MR. CHAIKEN: If Tom did.

13 MR. BELL: I see.

14 THE WITNESS: I'm sorry. So the
15 question is did I ever talk to Dewey Weaver about the
16 performance of the systems that we had or did I ever
17 say to Dewey Weaver that we had a system that generated
18 a COP of ten?

19 (BY MR. CHAIKEN)

20 Q. That's a great distinction. And my
21 question -- the answer to your question is yes. Did
22 you either --

23 A. I'm sure that I talked to Dewey Weaver
24 about the performance of the different technologies
25 that we had. I'm sure that I never said to Dewey

1 A. We knew that the test was going to happen
2 in Lugano. Yes. We were very familiar with the fact
3 that he wanted to have a test with those scientists.

4 Q. Did you ever say, "Hey, listen, we don't
5 think it's a good idea. You're going to be disclosing
6 our IP"?

7 A. Yes, we did.

8 Q. And how did you do that?

9 A. We had many conversations about it.

10 Q. Did you put anything in writing about it?

11 A. I don't remember writing about that. I
12 remember we specifically said, "You can't disclose to
13 them what's in the fuel." And he said, "Don't worry.
14 I can protect it. I'll take a sample that doesn't come
15 from the part of the reactor that has the fuel in it --
16 the real fuel sample in it."

17 (Whereupon Exhibit 43 was marked for
18 identification as of this date.)

19 Q. I'm showing you what's been marked as
20 Exhibit 43. Exhibit 43 is a document bates stamped
21 IH-7623. I believe it's dated February 3rd, 2014 and
22 -- actually, I take it back. March 2nd, 2014. I was
23 reading it backwards.

24 A. Um-hm.

25 Q. It's -- the first e-mail is Dr. Rossi

1 do what he was going to do. Meanwhile, we were very
2 happy to see the technology being tested if it was
3 being tested in a professional manner.

4 Q. Do you know for a fact whether or not he
5 disclosed the fuel to the Swedish professors?

6 A. Yes, he did. Well, let me rephrase that.
7 I don't know whether he disclosed the fuel because I
8 don't know what fuel was used. I don't know where the
9 sample came from. I know that he said he disclosed the
10 fuel to the Swedish professors.

11 Q. He said that to you?

12 A. He said it because he said that he had
13 given them the fuel to test. I don't know if it was
14 true. I know that he said that.

15 Q. And you were present during at least some
16 or part of that conversation, correct?

17 A. Yeah. While they were running the
18 machines.

19 Q. While they were running the machines. Did
20 you prepare some of the fuel for that test?

21 A. I don't know. I prepared fuel before that
22 test.

23 Q. Got it.

24 A. We fueled one reactor. That reactor was
25 not the one that was run. There were three empty

1 reactors that went over there. One of those reactors
2 ran. We don't know what ran in that reactor. It may
3 have been the fuel that we prepared; maybe not.

4 (Whereupon Exhibit 44 was marked for
5 identification as of this date.)

6 Q. I'll show you what's been marked as
7 Exhibit 44. Exhibit 44 has been bates stamped
8 IH-107140. The top of the page is an e-mail from you
9 to Brian McLaughlin dated October 2nd, 2014.

10 A. Um-hm.

11 Q. I believe you're talking about this -- the
12 Lugano test as well. You can correct me if I'm wrong.

13 A. Um-hm.

14 Q. And you write in this e-mail, "Also, he
15 would say that they've now done one and four." And
16 you're referring to the e-mail down below. "They
17 tested the isotopes before and after (as I understand
18 -- and FYI, the professors did take the "after" fuel
19 sample from the Lugano device, i.e. AR didn't control
20 it)." What did you mean by that?

21 A. I thought that was in -- I did not remember
22 that that was the case. My recollection, as I sit here
23 now, was that he did control it. So the question is
24 who actually took the sample from the device and was it
25 the device that ran. And was it the same device -- was

1 sample. Those types of issues.

2 Q. Is it your contention still that Dr. Rossi
3 was in control of the test in general?

4 A. Yes. And by that, to elaborate, I know
5 that the professors would have made many different
6 kinds of measurements had they been able to do so. And
7 I know that they were unhappy that they were not able
8 to take those different kinds of measurements. They
9 also told me clearly that the heat output from the
10 device was overstated based on the way the thermal
11 measurement happened.

12 Q. Going back to Exhibit 38 which was the
13 Fourth Amended Counterclaim. We talked a little bit
14 about the Lugano report. I want to talk a little bit
15 about the next one which is disclosure of specific
16 information about E-CAT fuel to Norman Cook. Who is
17 Norman Cook?

18 A. He's a professor at Kansai University in
19 Osaka.

20 Q. Got it. And did you have discussions with
21 Dr. Rossi prior to Norman Cook issuing a report?

22 A. I don't remember when we talked to Rossi
23 about it. I believe that Rossi told us before Rossi
24 wrote -- before Cook wrote a paper about it that he was
25 going to do so.

1 wrongfully disclosing our IP"?

2 A. I don't remember the chronology of those
3 conversations, but it was a fairly regular
4 communication that we had. "Please don't disclose so
5 much information about our IP."

6 Q. Do you recall reading the final report?

7 A. The paper -- the Cook paper?

8 Q. Yeah.

9 A. I don't remember. I don't remember reading
10 it.

11 Q. Was there --

12 A. I'm sure that I would have looked at it,
13 but I don't remember.

14 Q. Was there some specific IP that was
15 disclosed that you thought was violative of the license
16 agreement?

17 A. I don't remember reading it so I don't
18 remember specifically what it was.

19 (Whereupon Exhibit 46 was marked for
20 identification as of this date.)

21 Q. I'll show you what's been marked as
22 Exhibit 46. 46 has been bates stamped IH-89665 through
23 666. It's a series of e-mails dated February 8th and
24 9th, 2015. At the top of it is an e-mail from you to
25 Daniel Pike; February 9th, 2015.

1 You write, "I've just read the presentation
2 and the abstract and they appear to be safe. Our IP
3 attorneys and we will be reading the paper tomorrow.
4 Thanks." Do you recall sending that e-mail?

5 **A. I don't recall, but I see it here. I must**
6 **have.**

7 Q. Do you recall talking to your IP attorneys
8 after this date?

9 **A. No, I don't remember that conversation.**

10 Q. Do you recall anybody telling you -- and,
11 again, do you recall anyone other than your counsel
12 telling you that they felt that some improper IP had
13 been disclosed as a result of the issuance of this
14 paper?

15 **A. I don't remember the feedback. As I sit**
16 **here now, I don't remember the feedback that we got**
17 **from the IP attorneys about it. My comment about the**
18 **presentation and the abstract appearing to be safe**
19 **meant that it appeared to be okay to send the abstract**
20 **and the presentation to the people in China who he**
21 **wanted to send that to.**

22 But there's nothing that -- they were going
23 to get the paper one way or another. I doubt that the
24 abstract or the presentation had more information than
25 the paper itself.

1 (Whereupon Exhibit 47 was marked for
2 identification as of this date.)

3 Q. I'm going to show you what's been marked as
4 Exhibit 47. 47 has been bates stamped IH-7010 through
5 7011. At the top of it is an e-mail from you to Dr.
6 Rossi.

7 A. Um-hm.

8 Q. And it's dated April 10th, 2015. And he's
9 telling you -- first, actually, I think Daniel Pike is
10 telling you at the bottom that the Rossi/Cook paper was
11 translated in Chinese. And you wrote at the top, "This
12 is very exciting to think about. Now 1.5 billion
13 people can read your paper. What a great world it is."
14 Do you see that?

15 A. Um-hm.

16 Q. If you had issues with the paper and
17 thought that it had improperly disclosed IP would you
18 have been happy about it?

19 A. It had already happened.

20 Q. Got it.

21 A. I had no choice at that point. If there
22 was good news in it then I would have been happy that
23 1.5 billion people would have seen it.

24 MR. CHAIKEN: Let's go off the record.
25 Do you want to take about five minutes and I'm done.

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Tuesday, May 10, 2016 5:06 PM
To: crjpace; Christopher M Lomax
Subject: Fwd: Test process

----- Forwarded message -----

From: con333@libero.it <con333@libero.it>
Date: Wed, Apr 24, 2013 at 3:45 AM
Subject: R: Test process
To: tdarden@industrialheat.co
Cc: JT Vaughn <jvaughn@industrialheat.co>, John Mazzarino <jmazzarino@industrialheat.co>

Dear Tom,
Please find in capital letters my answers along your text:

>----Messaggio originale----

>Da: tdarden@industrialheat.co
>Data: 24/04/2013 6.18
>A: "Dr. Andrea Rossi" <con333@libero.it>
>Cc: "JT Vaughn" <jvaughn@industrialheat.co>, "John Mazzarino" <jmazzarino@industrialheat.co>
>Ogg: Test process

>
>Andrea:
>

>I have some thoughts about the test and some ideas an how we could improve its significance or meaning to the outside world, such as investors and potential customers. In other words, these ideas would improve our credibility with outsiders. I do agree with you that the prior test with the professors is important, probably more so than our test, and also that operating only a portion of the plant is not technically or theoretically any different than operating the whole plant.

OK

>
>Here are my thoughts. First, as we indicated, we can accept Fabio Penon as the ERV, instead of BV. We also can make our payment based on his report of the results from only a portion of the reactors, eg 20% or 25%. Said another way, we will agree to do a test of only those reactors constituting the allowable percentage of the plant (eg 35kw/210kw instead of 165kw/1mw). We would like to get details about how this will work: how many reactors, how will you decide which ones, etc?
VERY GOOD: WE WILL OPERATE 30 REACTORS, NO PREFERENCE ABOUT WHICH
>

>In order to improve the credibility of the test with outsiders, we would like to do something else. We have two problems with the current situation, when we

compare it to what we thought was going to happen and what we represented to others. First, the ERV is an individual instead of a large company, and second, the test is of only a portion of 1mw.

>
>I would like to add someone else to the testing team, from one of the big testing companies (if we can get them--we are calling them now). We have spoken to SGS and will speak soon to BV and TUV. They say they might be able to furnish someone who will observe the test and offer an opinion about it. THIS CREATES A BIG PROBLEM, BECAUSE IN CASE OF DISAGREEMENT WE CAN HAVE TROUBLES. YOU HAVE SEEN THAT PENON IS A CERTIFIED PROFESSIONAL, AND ALL HE HAS TO DO IS TO MEASURE A FLOW, AN ELECTRICITY CONSUME, A TEMPERATURE, WITH CERTIFIED INSTRUMENTATION. ANOTHER GUY WE DO NOT KNOW POSES MANY PROBLEMS, AND I EXPLAINED THEM IN MY FIRST EMAIL ABOUT THIS ISSUE; FOR EXAMPLE, HE COULD ASK TO LOOK AT PARTICULARS WE DEEM INDUSTRIAL SECRETS, AT THAT POINT WHAT HAPPENS?

WE TRUST IN PENON BECAUSE HE ALREADY PARTICIPATED TO INDIPENDENT TESTS ,

>
>We are not doing this for purposes of deciding whether to pay--that will be decided by Penon, the ERV. But we want a report from one of these companies that we can use to give to customers or investors. So, we want to have someone at the test, for this reason.

I CAN ONLY REPEAT WHAT I WROTE ALREADY IN MY FORMER EMAILS AND HERE ABOVE.

>
>Second, we would like to run a test of another 200kw of the plant, maybe the next day or the day before the Penon test. Can we test another set of about 25 reactors, the day before our Penon test or the day after? If we tested 40% of 1 mw, and If we did thIs in two tests with two different testing entities (Penon and SGS, for example), that would be highly credible.

THIS IS NOT A PROBLEM. WE CAN MAKE 24 HOURS WITH A SET OF REACTORS AND OTHER 24 HOURS WITH ANOTHER SET

>
>So, we would like to consider having someone there from one of the big companies (TUV, BV or SGS) and we would like to test another 20% of the unit for a second day, either before or after the day of the Penon test.

SO, TO MAKE A DOUBLE TEST WITH 2 DIFFERENT SERIES OF REACTORS IS NOT A PROBLEM, AS FOR THE OTHER ISSUE , AS I SAID, YOU HAVE AT YOUR DISPOSITION THE REPORT OF THE THIRD INDIPENDENT PARTY WHICH WILL BECOME OFFICIAL WITHIN A COUPLE OF DAYS.

WARMEST REGARDS,

ANDREA

>
>Please offer your thoughts about these ideas.

>
>Thanks very much.

>Tom Darden

>Industrial Heat

>919 522 4095 m

>tdarden@industrialheat.co

--

JT Vaughn

Industrial Heat

p: 919.670.2811

c: jvaughn@industrialheat.co



20130126_Cherokee_LENRR Rev. No: 2

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MEMORANDUM

DATE: 15-Apr-13

VIA: Email

TO: Tom Darden, John Mazzarino, JT Vaughn c/o Industrial Heat

FROM: Dewey Weaver, Paul Morris

RE: DRV Comments on "Test Protocol for Plant Made for Cherokee"

CC: Lee Feldman

At the request of Industrial Heat (IH), Deep River Ventures (DRV) has reviewed the "Test Protocol of Plant Made for Cherokee" for the test currently scheduled to start on 4/30/2013. At DRV's request, Lee Feldman has also reviewed the test protocol and provided DRV with input. Below we provide our opinion based on our understanding of the goals of the test. We have also included comments on the Leonardo Corporation Test Document which is included for your review. Additionally, we make a number of suggestions in two categories a) Important and b) Optional. Finally we identify additional information that would allow us to perform a more thorough analysis of the test protocol and results once they become available. If the additional information is provided, we will do a second analysis of the test protocol for IH.

Goal and Assumptions:

DRV understands that the goal of the test is verify that the plant produces more energy than it consumes as specified in the contract and within the time durations specified in the contract as an appendix to the test protocol. As such, we have not focused whether the test provides an explanation of how the device generates excess heat (e.g. is it a fusion reactor, a fuel cell, a battery, etc.). We have focused on whether the test reveals that it does generate excess heat as specified in the contract.

Opinion:

We believe, based on our collective review and discussion, that the test is sufficient to demonstrate whether the tested device meets the contractual specifications. However, there are important additional test criteria not included in the contract that you may wish to review at some point.

Suggestions:

Important:

1. The test protocol states that the same instrumentations as used in the previous third party independent test will be used. Identify, in the test protocol document, what equipment is being used?

226 January 2013
Client: Cherokee Fund; LENR Project

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2. Provide, in the test protocol document, a definition for the Coefficient of Performance that will be used in the tests. For example, the COP can be defined as Delta T divided by the power consumed by the plant. In addition to providing an average of the COP, provide the variance.

Optional:

1. A thermal diagram of the system with identification and description of the measurement points by location on/in the system and by time taken during the testing. This will provide an understanding of the dissipated heating with respect to the energy input components to provide a truer test of "system wide thermodynamic loads.
2. Measurements of thermal line loss, absent input power to the plant. Again, this will aid in understanding the thermodynamics of the system.
3. Measure pressure changes in the input and output fluid lines. This will provide information regarding any pressure-related heating/cooling that may take place during operation of the system. Identification of the fluid use and its volumetric thermal capacity would be helpful to include in this information. Changes in variance in the heat capacity of the fluid over the range of input and output temperatures can be used to make corrections in the final Delta T measurements. The reason for this suggestion - superheating caused by pressure can easily raise the temperature of a fluid (e.g., water) by many-fold. In superheated water systems, a 5-fold increase in temperature is possible just from an increase in pressure.
4. Measure the COP for both the operating system and the system while it is presumably not operating. This will provide data on the thermal heat sink capacity of the system.
5. Create and provide a detailed digest or log (i.e. an experimental digest) of activities during test setup, testing, and post-test. This will allow for additional post-test analysis and measurement over time.

Additional data that would be helpful in reviewing the test protocol:

- a. Provide a description of the design/construction/materials of the specific device tested to the extent possible allowing trade secrets to remain protected. This should include a description of the electrical system used to start the reaction (c.g., thermal induction, simple heating elements, etc.)
- b. Indicate whether thermal line loss, absent any input power, will be measured. If so, what measurements will be made and how?

We hope that this input adds value to the IH test plan for the E-Cat device and are ready to assist in any way needed moving forward. As always, thank you for the opportunity to work with Industrial Heat.

Sincerely,

Dewey Weaver

Paul Morris

Deep River Ventures LLC

**Leonardo Corp.
1331 Lincoln Rd, S.te 601
Miami Beach, FI 33139
USA**

**Industrial Heat
Raleigh, NC
USA**

NEW PRODUCTION TECHNOLOGIES OF ENERGY

E-CAT MW1

HOT CAT:

COLLECTION OF TEST REPORTS

Ferrara, April 29 – May 2, 2013

Fabio Penon M.E:
POIESIS srl
via M.A. Calza 10
35128 Padova
Italy

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**CHAPTER 1:
E-CAT MW1 ENERGY PLANT
COEFFICIENT OF PERFORMANCE (COP) EVALUATION TEST**

The following report illustrates the results of the COP evaluation tests on the E-CAT MW1 ENERGY PLANT

1. Foreword

On 30 April 2013, in Ferrara, in Via del Commercio 34/36, have been carried out tests for assessing the COP of the E-CAT MW1 ENERGY PLANT, designed by the company Leonardo Corporation, 1331 Lincoln road, S.te #601, Beach Miami, Florida (USA)

They take part in the tests:

for Industrial Heat
Mr T. Barker Dameron
Mr J. Compton
Mr T. Darden
Mr J. Vaughn

for Leonardo Corporation
Mr F. Fabiani
Mr A. Rossi

Mr F. Penon ERV

2. Device

The system under test consists of 107 units, each of which absorbs a power of about 1.1 kW

Each unit consists of a reaction chamber, where the nickel powder reacts with the hydrogen in the presence of a catalyst, covered by industrial secret.

The electric heaters, fed by the current generator and the power of which is regulated by the power panel, heat the reaction chamber and trigger the reaction between nickel and hydrogen.

The energy produced is removed by the cooling fluid, water, sent to inside of the module from the pump (model Prominent Gamma for the units on the roof of the container, model Prominent Concept plus for the other units), associated to the unit itself

The control of the reaction is performed by means of probes, which detect the temperature of water in entry of the plant and the steam to output

The flow rate of the cooling fluid is manually set to start of operations

3. Test set up

3.1 List of components

- n. 1 Generator (300 Kw)
- n. 2 Water pump (model EEM, Tellarini pompe, 0,37 Kw)
- n. 107 E-Cat units
- n. 24 Water pump (model Prominent Gamma, 23 w,)
- n. 56 Water pump (model Prominent Concept plus, 15w)
- n. 2 Heat sinks
- n.2 Water tank (1 cubic meter capacity each)

3.2 Measurement instrumentation

- n. 2 Flowmeter
- n.1 Manometer
- n. 4 Instrument with probe / sensor for temperature measurement by immersion
- n. 1 Multifunction Calibrator
- n. 1 Power analyzer

4. Operation of the test device

The water contained in the two tanks, placed at the sides of the shenker, is conveyed by pumps in the units E-Cat, where it is heated to vaporize. The steam is collected in the two tubes of the steam line, which convey it to the outside of the shelter, where flow together in a single tube.

The vapor is then passed through two heat sinks to its condensation

The water thus obtained is conveyed into the reservoir, positioned inside of the shelter and from here conveyed to the two external tanks by the two pumps on the sides of the reservoir, (See also diagram in Annex 1)

The generator powers the heating elements of the E-Cat units, the pumps for the water, the internal services to the shelter and the control panel. Heat sinks (fans) are connected to the public electric grid

5. History of the test

In order to comply with the Italian law the trial was conducted by activating only 18 E-Cat units

30/04/2013

h 12.25 Activation of the generator
h 12.57 Start recording automatically exit temperatures of steam and temperatures of water in tank 1
h 13.30 Beginning of the test

01/05/2013

h 13.00 End of the test
Activate shutdown procedure
h 13.16 End of the temperature recording

6. Calculation of COP

$$\text{COP} = \frac{\text{energy produced (} E_P \text{)}}{\text{energy absorbed (} E_A \text{)}}$$

6.1 Calculation of the energy produced (E_P)

The energy produced by 18 reactors is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_P = E_R + E_V + E_S$$

$$E_R \text{ (energy of heating of water up to } 100^\circ\text{C)} = M_{W1} \times C_{sw} \times (T_{ev} - T_{iw1}) + M_{W2} \times C_{sw} \times (T_{ev} - T_{iw2})$$

M_{W1} = mass of water vaporized during the whole test, coming from tank 1

T_{iw1} = inlet temperature of the water, coming from tank 2

M_{W2} = mass of water vaporized during the whole test, coming from tank 2

T_{iw2} = inlet temperature of the water, coming from tank 2

C_{sw} = specific heat of water = 1,14 Wh/(kgK)

T_{vw} = vaporization temperature of the water = 100 °C

$$E_V \text{ (energy of vaporization of water)} = \lambda \times (M_{W1} + M_{W2})$$

λ = (latent energy of vaporization) = 627,5 Wh/kg

$$E_S \text{ (heating energy of steam)} = M_s \times C_{ps} \times (T_{os} - T_{vw})$$

M_s = mass of steam produced during the whole test

C_{ps} = specific heat of steam at constant pressure = 0,542 Wh/kg

T_{os} = outlet temperature of the steam

T_{vw} = vaporization temperature of the water

Note: Throughout the test the temperatures of steam measured by the two probes have always been the same or very similar to each other.

Throughout the test the pressure of the steam was always equal to atmospheric pressure

In order to be conservative:

- it has not been taken into account the heating energy of steam
- the temperature of the inlet water has always been considered equal to the maximum value of the same measured during the whole test
- the uncertainty of measurement of the mass of water heated all were considered against. Consequently, the total mass of water transited during the trial period has been reduced by 10%.

6.2 Calculation of the energy absorbed (E_a)

The absorbed energy is generated by the generator set

In order to be conservative:

- all the energy, produced by the generator, is supposed to be absorbed by the 18 reactors

In reality a part of this energy feeds the pumps, which convey the water from the internal reservoir to the two external tanks and pumps, which convey the water from the tanks external to the reactors. This energy then would not have gone to feed the reactors

- all the energy produced by the generator since its activation has been taken into account in the context of the test

6.3 Calculation of the COP

The COP has been considered only during the period, in which the E-Cat was operating, namely when the temperature of the steam at ambient pressure was higher than 101 °C

The COP has not been considered during the phases of activation and de-activation

At the beginning of the test, the following values were measured:

$M_{W1b} = 1050 \text{ kg}$

$M_{W2b} = 2100 \text{ kg}$

$T_{iw1} = 21.6 \text{ }^{\circ}\text{C}$

$T_{iw2} = 22.4 \text{ }^{\circ}\text{C}$

$T_{os} = 121,3 \text{ }^{\circ}\text{C}$

Energy produced by generator set = 8.98 KWh

At the end of the operational period, the following values were measured:

$M_{W1e} = 1750 \text{ kg}$

$M_{W2e} = 3900 \text{ kg}$

$T_{iw1} = 54.4 \text{ }^{\circ}\text{C}$

$T_{iw2} = 46.8 \text{ }^{\circ}\text{C}$

$T_{os} = 139,7 \text{ }^{\circ}\text{C}$

Energy produced by generator set = 140,7 KWh

$$E_R = M_{W1} \times C_{sw} \times (T_{ev} - T_{iw1}) + M_{W2} \times C_{sw} \times (T_{ev} - T_{iw2})$$

$$M_{W1} = (M_{W1e} - M_{W1b}) = 1750 - 1050 = 700 \text{ kg}$$

$$M_{W2} = (M_{W2e} - M_{W2b}) = 3900 - 2100 = 1800 \text{ kg}$$

and reducing by 10%

$$\begin{aligned}M_{W1} &= 630 \text{ kg} \\M_{W2} &= 1620 \text{ kg}\end{aligned}$$

During the test the highest value of T_{IW1} is equal to 54,9 °C, the highest value of T_{IW2} is equal to 55,2 °C

Substituting the values we get then

$$E_R = 630 \times 1.14 \times (100 - 54,9) + 1620 \times 1.14 \times (100 - 55,2) = 32391 + 82737 = 115128 \text{ wh}$$

$$E_V = \lambda \times (M_{W1} + M_{W2}) = 627,5 \times (630 + 1620) = 627,5 \times 2250 = 1411875 \text{ wh}$$

$$E_S = M_s \times C_{ps} \times (T_{os} - T_{vw}) = \text{not taken into account}$$

$$E_a = 140.70 - 8,98 = 131,72 \text{ Kwh}$$

We take into account

$$E_a = 140.70 \text{ kwh} = 140700 \text{ wh}$$

$$COP = \frac{(115128 + 1411875)}{140700} = \frac{1527003}{140700} = 10,85$$

Throughout the test the temperature of the outlet steam was always significantly higher than 100 °C

Abano Terme, 07/05/2013

Fabio Penon M. Eng.

Annex 1. Test facility diagram

**CHAPTER 2:
E-CAT MW1 ENERGY PLANT
COP REPEATABILITY TEST**

The following report illustrates the results of the COP repeatability test on the E-CAT MW1 ENERGY PLANT

1. Foreword

On 30/04/2013 in Ferrara, in via del Commercio 34/36 have been carried out tests for assessing the COP of the E-CAT MW1 ENERGY PLANT, designed by the company Leonardo Corporation, 1331 Lincoln road, S.te #601, Beach Miami, Florida (USA)

Later it was decided to conduct further testing with two objectives

- check the value of the COP, obtained by activating another 18 E-Cat units, but different from those used in the previous test
- verify that the value of the COP is consistent with that obtained in the previous test

On 02/05/2013 the test was carried out

They take part in the tests:

for Industrial Heat

Mr T. Barker Dameron

Mr T. Darden

Mr J. Vaughn

for Leonardo Corporation

Mr F. Fabiani

Mr A. Rossi

Mr F. Penon (consultant)

2. Device

The system under test consists of 107 units, each of which absorbs a power of about 1.1 kW

Each unit consists of a reaction chamber, where the nickel powder reacts with the hydrogen in the presence of a catalyst, covered by industrial secret.

The electric heaters, fed by the current generator and the power of which is regulated by the power panel, heat the reaction chamber and trigger the reaction between nickel and hydrogen.

The energy produced is removed by the cooling fluid, water, sent to inside of the module from the pump (model Prominent Gamma for the units on the roof of the container, model Prominent Concept plus for the other units), associated to the unit itself

The control of the reaction is performed by means of probes, which detect the temperature of water in entry of the plant and the steam to output

The flow rate of the cooling fluid is manually set to start of operations

3. Test set up

3.1 List of components

- n. 1 Generator (300 Kw)
- n. 2 Water pump (model EEM, Tellarini pompe, 0,37 Kw)
- n. 107 E-Cat units
- n. 24 Water pump (model Prominent Gamma, 23 w,)
- n. 56 Water pump (model Prominent Concept plus, 15w)
- n. 2 Heat sinks
- n.2 Water tank (1 cubic meter capacity each)

3.2 Measurement instrumentation

- n. 2 Flowmeter
- n.1 Manometer
- n. 4 Instrument with probe / sensor for temperature measurement by immersion
- n. 1 Multifunction Calibrator
- n. 1 Power analyzer

4. Operation of the test device

The water contained in the two tanks, placed at the sides of the shenker, is conveyed by pumps in the units E-Cat, where it is heated to vaporize. The steam is collected in the two tubes of the steam line, which convey it to the outside of the shelter, where flow together in a single tube.

The vapor is then passed through two heat sinks to its condensation

The water thus obtained is conveyed into the reservoir, positioned inside of the shelter and from here conveyed to the two external tanks by the two pumps on the sides of the reservoir, (See also diagram in Annex 1)

The generator powers the heating elements of the E-Cat units, the pumps for the water, the internal services to the shelter and the control panel. Heat sinks (fans) are connected to the public electric grid

5. History of the test

In order to comply with the Italian law the trial was conducted by activating only 18 E-Cat units, but different from those used in the previous test

02/05/2013

h 15.30	Activation of the generator
h 16.00	Start recording automatically exit temperatures of steam and temperatures of water in tank 1
h 17.30	Beginning of the test
h 18.45	End of the test
	Activate shutdown procedure
h 18.54	End of the temperature recording

6. Calculation of COP

$$\text{COP} = \frac{\text{energy produced (} E_P \text{)}}{\text{energy absorbed (} E_A \text{)}}$$

6.1 Calculation of the energy produced (E_P)

The energy produced by 18 reactors is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_P = E_R + E_V + E_S$$

E_R (energy of heating of water up to 100 °C) =

$$M_{W1} \times C_{sw} \times (T_{ev} - T_{iw1}) + M_{W2} \times C_{sw} \times (T_{ev} - T_{iw2})$$

M_{W1} = mass of water vaporized during the whole test, coming from tank 1

T_{iw1} = inlet temperature of the water, coming from tank 2

M_{W2} = mass of water vaporized during the whole test, coming from tank 2

T_{iw2} = inlet temperature of the water, coming from tank 2

C_{sw} = specific heat of water = 1,14 Wh/(kgK)

T_{vw} = vaporization temperature of the water = 100 °C

$$E_V = (\text{energy of vaporization of water}) = \lambda \times (M_{W1} + M_{W2})$$

$$\lambda = (\text{latent energy of vaporization}) = 627,5 \text{ Wh/kg}$$

$$E_S (\text{heating energy of steam}) = M_s \times C_{ps} \times (T_{os} - T_{vw})$$

M_s = mass of steam produced during the whole test

C_{ps} = specific heat of steam at constant pressure = 0,542 Wh/kg

T_{os} = outlet temperature of the steam

T_{vw} = vaporization temperature of the water

Note: Throughout the test the temperatures of steam measured by the two probes have always been the same or very similar to each other.

Throughout the test the pressure of the steam was always equal to atmospheric pressure

In order to be conservative:

- it has not been taken into account the heating energy of steam
- the temperature of the inlet water has always been considered equal to the maximum value of the same measured during the whole test
- the uncertainty of measurement of the mass of water heated all were considered against. Consequently, the total mass of water transited during the trial period has been reduced by 10%.

6.2 Calculation of the energy absorbed (E_a)

The absorbed energy is generated by the generator set

In order to be conservative:

- all the energy, produced by the generator, is supposed to be absorbed by the 18 reactors

In reality a part of this energy feeds the pumps, which convey the water from the internal reservoir to the two external tanks and pumps, which convey the water from the tanks external to the reactors. This energy then would not have gone to feed the reactors

- all the energy produced by the generator since its activation has been taken into account in the context of the test

6.3 Calculation of the COP

The COP has been considered only during the period, in which the E-Cat was operating, namely when the temperature of the steam at ambient pressure was higher than 101 °C

The COP has not been considered during the phases of activation and de-activation

At the beginning of the test, the following values were measured:

$$M_{W1b} = 1900 \text{ kg}$$

$$M_{W2b} = 3950 \text{ kg}$$

$$T_{iw1} = 30.9 \text{ }^{\circ}\text{C}$$

$$T_{iw2} = 29.0 \text{ }^{\circ}\text{C}$$

$$T_{os} = 130,2 \text{ }^{\circ}\text{C}$$

$$\text{Energy produced by generator set} = 14.22 \text{ KWh}$$

At the end of the operational period, the following values were measured:

$$M_{W1e} = 2100 \text{ kg}$$

$$M_{W2e} = 4100 \text{ kg}$$

$$T_{iw1} = 31.8 \text{ }^{\circ}\text{C}$$

$$T_{iw2} = 29.9 \text{ }^{\circ}\text{C}$$

$$T_{os} = 124,9 \text{ }^{\circ}\text{C}$$

$$\text{Energy produced by generator set} = 23,31 \text{ KWh}$$

$$E_R = M_{W1} \times C_{sw} \times (T_{ev} - T_{iw1}) + M_{W2} \times C_{sw} \times (T_{ev} - T_{iw2})$$

$$M_{W1} = (M_{W1e} - M_{W1b}) = 2100 - 1900 = 200 \text{ kg}$$

$$M_{W2} = (M_{W2e} - M_{W2b}) = 4100 - 3950 = 150 \text{ kg}$$

and reducing by 10%

$M_{W1} = 180 \text{ kg}$

$M_{W2} = 135 \text{ kg}$

During the test the highest value of T_{iw1} is equal to 33,0 °C, the highest value of T_{iw2} is equal to 31,9 °C

Substituting the values we get then

$$E_R = 180 \times 1.14 \times (100 - 33,0) + 135 \times 1.14 \times (100 - 31,9) = 13748 + 10481 = 24229 \text{ wh}$$

$$E_V = \lambda \times (M_{W1} + M_{W2}) = 627,5 \times (180 + 135) = 627,5 \times 315 = 197662 \text{ wh}$$

$$E_S = M_s \times C_{ps} \times (T_{os} - T_{vw}) = \text{not taken into account}$$

$$E_a = 23.31 - 14.22 = 9.09 \text{ Kwh}$$

We take into account

$$E_a = 23.31 \text{ kwh} = 23310 \text{ wh}$$

$$\text{COP} = \frac{(24229 + 197662)}{23310} = \frac{221891}{23310} = 9.5$$

Throughout the test the temperature of the outlet steam was always significantly higher than 100 °C

7. Conclusions

The value of the COP, obtained by activating another 18 E-Cat units, but different from those used in the previous test, and by applying the same conservative criteria of the previous test, is greater than 6 and is comparable with the previous COP

Abano Terme, 11/05/2013

Fabio Penon M. Eng.

**CHAPTER 3:
HOT CAT DEVICE
TEST OF THE RELIABILITY AND STABILITY OF OPERATION**

The following report illustrates the results of the test of the reliability and stability of operation of the HOT CAT device

1. Foreword

On 01 May 2013, in Ferrara, in Via del Commercio 34/36, has been carried out a test of the reliability and stability of operation of the HOT CAT device, designed by the company Leonardo Corporation, 1331 Lincoln road, S.te #601, Beach Miami, Florida (USA)
It was also calculated the COP of the device

They take part in the tests:

for Industrial Heat
Mr T. Barker Dameron
Mr J. Compton
Mr T. Darden
Mr J. Vaughn

for Leonardo Corporation
Mr F. Fabiani
Mr A. Rossi

Mr F. Penon consultant

2. Device

The test device consists of three coaxial cylinders.

The innermost cylinder is made of steel AISI 316 and contains the powders charge

The intermediate cylinder is made of corundum, houses three resistors, in turn fed through a TRIAC. The TRIAC allows to modulate the power supply interrupting with the frequency determined in advance

The outer cylinder is made of silicon nitride ceramic and is coated by a special aeronautical-industry grade black paint, specifically designed for the Hot-Cat.
The Hot Cat was placed on a frame so as to permit irradiation of all the surrounding space

The contacts points between the device and the frame were reduced to the minimum necessary for mechanical stability

It is possible to find a more detailed description of the device under test in the report:
Preliminary tests and heat energy production measurements of the E-Cat HT device

3. Test set up

Measurement instrumentation

n. 1 IR Thermographic camera Optris PI 160

n. 1 Power Harmonics Analyzer PCE 830

4. History of the test

Throughout the test the operation of the device is now set: 1 minutes of operation fed constant power, then 2 minutes running in mode self sustained
The total duration of the test has been equal to 11 hours and 25 minutes

5. Calculation of COP

$$\text{COP} = \frac{\text{power produced (} P_p \text{)}}{\text{power absorbed (} P_A \text{)}}$$

5.1 Calculation of the power produced (P_p)

The power produced by Hot Cat is given by the sum of the power emitted by radiation and power emitted by convection.

$$P_p = P_R + P_{cv}$$

$$P_R (\text{ power emitted by radiation }) = \varepsilon \times \sigma \times T^4 \times A - \varepsilon \times \sigma \times T_r^4 \times A$$

ε = power emitted from the real surface
 power emitted by a black body, having the same temperature
 σ = Stefan Boltzmann's constant = $5.67 \times 10^{-8} \text{ w/(m}^2 \times \text{K}^4 \text{)}$
 T = temperature of the emitting surface (°K)
 T_r = room temperature
 A = area of Hot Cat = $2 \times \pi \times R \times L$
 R = radius of the Hot Cat = 0.05 m
 L = length of the Hot Cat = 0.33 m

$$P_{cv} (\text{ power lost by convection }) = h \times A \times (T - T_f)$$

h = convection coefficient
 A = area of Hot Cat
 T = surface temperature
 T_f = fluid temperature

5.2 Calculation of the power emitted by radiation P_R

We divided the outer cylindrical surface of the hot cat in ten annular areas, each of which, the camera has detected the temperature during the entire duration of the test

The analysis of the data showed that during the entire test, the temperatures are developed in an approximately step shape with periodicity equal to about 3 minutes. The minimum and maximum values of the temperature in each of the areas were virtually always constant.

In order to be conservative we assume the temperature of each area during the entire test was equal to

$$T_{\text{area-i}} = T_{\text{min-i}} + (T_{\text{max-i}} - T_{\text{min-i}})/3$$

where $T_{\text{area-i}}$, $T_{\text{min-i}}$, $T_{\text{max-i}}$ are respectively the average temperature, the minimum temperature and the maximum temperature of the i-th area

For each area, we then calculated the power emitted by radiation according to the formula

$$P_{R \text{ area-i}} = \varepsilon \times \sigma \times T_{\text{area-i}}^4 \times A_i$$

where
 ε = emissivity of a coated surface with black paint = 0.87
 σ = Stefan Boltzmann's constant = $5.67 \times 10^{-8} \text{ w}/(\text{m}^2 \times \text{K}^4)$
 A_i = surface of the i-th area

Summing up the ten calculated values we obtain

$$\sum_i P_{R \text{ area-i}} = 387.23 \text{ W}$$

To this power we subtract the thermal power due to room temperature.

Using the 25 °C average over the 11 hours and 25 minutes we obtain 40,38 W

Finally we get

$$P_R (\text{ power emitted by radiation }) = 346,85 \text{ w}$$

5.3 Calculation of the power lost by convection

$$P_{cv} (\text{ power lost by convection }) = h \times A \times (T - T_r)$$

Convection coefficient (h) calculation:

The physical constants of the air at a temperature (T_{av}) intermediate between that of the surface of the cylinder (T) and that of the air (T_r):

$$T = \sum_i T_{\text{area-i}}/10$$

$$T_{av} = (T + T_r)/2 = (522 + 298)/2 = 410 \text{ °K}$$

$$\mu (\text{ viscosity }) = 2.2 \times 10^{-5} \text{ kg}/(\text{m} \times \text{s})$$

$$\rho (\text{ density }) = 0.86 \text{ kg}/\text{m}^3$$

$$c_p (\text{ specific heat capacity at constant pressure }) = 1.013 \times 10^3 \text{ J}/(\text{Kg} \text{ °K})$$

$$k (\text{ coefficient of thermal conductivity }) = 0.0346 \text{ w}/(\text{m} \text{ °K})$$

$$\beta (\text{ coefficient of thermal expansion }) = 0.0024 \text{ °K}^{-1}$$

$$\Delta T = T - T_r = 522 - 298 = 224 \text{ °K}$$

$$D (\text{ diameter of the Hot Cat }) = 0.10 \text{ m}$$

$$g (\text{ gravitational acceleration }) = 9,8 \text{ m}/\text{s}^2$$

$$Gr (\text{ Grashof number }) = \frac{D^3 \times \rho^2 \times g \times \beta \times \Delta T}{\mu^2} = \frac{0.1^3 \times 0.86^2 \times 9.8 \times 0.0024 \times 224}{(2.2 \times 10^{-5})^2} = \frac{3.90 \times 10^7}{4.84} = 0.81 \times 10^7$$

$$\text{Pr (Prandtl number)} = \frac{c_p \times \mu}{k} = \frac{1.013 \times 10^3 \times 2.2 \times 10^{-5}}{0.0346} = 0.64$$

$$\text{Gr} \times \text{Pr} = 0.81 \times 10^7 \times 0.64 = 5.18 \times 10^6$$

Being the product $(\text{Gr} \times \text{Pr}) > 10^4$, we can refer to the following semi-empirical correlation

$$\text{Nu (Nusselt number)} = 0.525 \times (\text{Gr} \times \text{Pr})^{1/4} = 0.525 \times (5.18 \times 10^6)^{1/4} = 25.04$$

By the other hand recalling that

$$\text{Nu} = \frac{h \times D}{k}$$

we obtain

$$h = \frac{\text{Nu} \times k}{D} = \frac{25.04 \times 0.0346}{0.1} = 8.66 \text{ w/(m}^2 \text{ }^\circ\text{K)}$$

We can then calculate the power lost by convection

$$P_{cv} = h \times A \times (T - T_f) = 8.66 \times 0.1036 \times 224 = 200.97 \text{ W}$$

5.4 Calculation of the power absorbed (P_A)

The measures carried out have shown that the power absorbed by the resistors coils has been more or less constant during the test

$$P_A = \text{power absorbed} = 730 \text{ w}$$

Given that the power was absorbed by the resistors coils only during 1/3 of the test time, we obtain

$$P_A = 730/3 = 243.33 \text{ wh/h}$$

5.5 Calculation of the COP

$$\text{COP} = \frac{\text{power produced (} P_P \text{)}}{\text{power absorbed (} P_A \text{)}} = (P_r + P_{cv})/P_A = (200.97 + 346.85)/243 = 2.25$$

6. Conclusions

The measurements and calculation models used are decidedly conservative.

A more refined physical-mathematical modeling of the test would give most likely COP values higher

In the course of the tests were performed more than 200 sequences in operation mode fed for 1 minute, and self-sustained for 2 minutes.

The Hot Cat has always worked with continuity, keeping the interior of the same range of temperatures and then power

Abano Terme, 03/06/2013

Fabio Penon M. Eng.

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

ANDREA ROSSI and LEONARDO
CORPORATION,

Plaintiffs,

vs.

THOMAS DARDEN; JOHN T. VAUGHN;
INDUSTRIAL HEAT, LLC; IPH
INTERNATIONAL B.V.; and
CHEROKEE INVESTMENT PARTNERS,
LLC,

Defendants.

INDUSTRIAL HEAT, LLC and IPH
INTERNATIONAL B.V.,

Counter-Plaintiffs,

vs.

ANDREA ROSSI and LEONARDO
CORPORATION,

Counter-Defendants,

and

J.M. PRODUCTS, INC.; HENRY
JOHNSON; FABIO PENON; UNITED
STATES QUANTUM LEAP, LLC;
FULVIO FABIANI; and JAMES
BASS,

Third-Party Defendants.

No. 1:16-cv-2119-CMA

Videotaped Deposition of
JOHN THOMAS VAUGHN
(Taken by Plaintiff)

3509 North Haworth Drive, Suite 403, Raleigh, North Carolina
January 19, 2017, 9:04 a.m.

Reported in Stenotype By
Margaret M. Kruse, CSR, RMR, CRR
Transcript produced by computer-aided transcription

1 payments. It states [as read]: The total price for the
2 grant of the license and the purchase of the plant is
3 \$100,500,000.

4 Do you see that?

5 **A. I see that.**

6 Q. And then it goes on to say [as read]: The
7 payment terms will be as follows.

8 **A. Uh-huh.**

9 Q. And is it your understanding that there were
10 three tiers of payments?

11 **A. Correct. And I apologize, I was just reviewing**
12 **it to make sure my recollection wasn't incorrect. But**
13 **correct.**

14 Q. And at the first payment of \$1,500,000 was to be
15 made within two days of the signing of this agreement,
16 correct?

17 **A. That's what it says, yes.**

18 Q. And it states in here [as read]: In the event
19 the plant is not delivered or validation is not achieved
20 within the time period set forth in Section 4, the full
21 \$1,500,000 will be refunded to the company within two
22 business days of its request.

23 Do you see that?

24 **A. I see that, yes.**

25 Q. Did Industrial Heat ever request that that money

1 be returned?

2 A. I don't know. I did -- I don't recall myself
3 requesting that and I don't believe that Tom did. The --
4 we had been provided a report that Dr. Rossi gave us when
5 -- by Levy and other Swedish professors that was very
6 compelling. And so anyway. . .

7 Q. This just says if it's not delivered or achieves
8 the --

9 A. Validation, yeah.

10 Q. -- the validation, the money would be returned.
11 Is that what it says?

12 A. It says [as read]: In the event the plant is not
13 delivered or validation is not achieved within the time
14 period set forth in Section 4, the full 1.5 million will be
15 refunded to the company within two business days of its
16 request.

17 MR. BELL: And his pending question is: Is that
18 what it says?

19 THE WITNESS: That's what it says, yes.

20 MR. BELL: His earlier question was: Did you
21 make a request or whatever. I don't want to rephrase the
22 question.

23 THE WITNESS: I did not make a request.

24 BY MR. ANNESSER:

25 Q. Was validation achieved, sir?

1 MR. LOMAX: Objection to the form of the
2 question.

3 THE WITNESS: I don't see payment of --
4 nonpayment of taxes referenced specifically in
5 paragraph 98.

6 BY MR. CHAIKEN:

7 Q. Okay. Do you have an understanding as to how
8 IPH was damaged as a result of Leonardo and Rossi's
9 failure to pay taxes?

10 A. My understanding of the provision in the
11 contract is to protect the parties from perhaps a claim
12 resulting from nonpayment of tax against perhaps a
13 property, the subject property of the license agreement.

14 Q. Did any such claim take place or happen?

15 A. Not to my knowledge.

16 Q. Okay. Do you have knowledge of any damage that
17 IPH incurred as a result of the allegation that Leonardo
18 and Rossi failed to pay taxes?

19 MR. LOMAX: Objection to the form of the
20 question.

21 THE WITNESS: I'm not aware of that.

22 BY MR. CHAIKEN:

23 Q. Going back to paragraph 135, Page 61. I take
24 it back. Paragraph 134 states, "Rossi and Leonardo, JMP
25 and Johnson, falsely represented to Industrial Heat that

1 BY MR. ANNESSER:

2 Q. Isn't it true that Industrial Heat and yourself
3 were more interested in the results of the Lugano test, the
4 independent test, as it was referred to, than you were of
5 your own test?

6 A. We were very interested in the results of that
7 test. Again, we didn't have -- we clearly had reservations
8 or questions at the end of '13. We also -- while we
9 weren't sure about Rossi's methods and results, we also
10 weren't sure of our own and we questioned our abilities to
11 determine the state-of-the-art. And -- and so we were very
12 interested in what they claimed or their assessment in
13 Lugano.

14 So that was -- I think it's fair to say that we
15 were very eager to hear their analysis.

16 Q. And before the Lugano test, you said you were
17 still concerned about how the testing was carried out and
18 whether those results were verifiable and accurate?

19 A. Correct.

20 Q. Who carried out the Lugano test, to your
21 understanding?

22 A. Rossi was there with Fulvio. And then Levy. I
23 think Faci was there. And then -- I get the Swedish guys
24 mixed up, but I think there were two of three of them
25 there, and they were all there to carry out the test.

1 information from that period of time, and it just --
2 depending on, you know, as I mentioned, it's an evolving
3 process, our view of the technology. But we realized that
4 we had to get much more sophisticated than we were
5 originally to assess accurately whether or not the
6 technology worked.

7 Q. So sitting here today your position is not that
8 it didn't work, it's that you can't affirmatively state
9 with the information that you collected at the time that it
10 does?

11 MR. BELL: Objection to form.

12 BY MR. ANNESSER:

13 Q. Is that fair to -- is that a fair summary?

14 A. Sitting here today, it is my belief that the
15 technology does not work.

16 Q. Okay. I did not ask you what your belief was.

17 A. I'm confused about -- the way you're phrasing the
18 question is confusing. If you could -- I apologize, but if
19 you could restate.

20 Q. You've used the term "indeterminate." That
21 generally means, at least I take it to mean and correct me
22 if I'm wrong, that you cannot determine whether the results
23 were correct or not?

24 A. I said we were getting a lot of indeterminate
25 information. So if you go back and you review all of these

1 **A. Right.**

2 Q. I believe the test protocol was proposed prior to
3 that in 2014 or early '15 before Mr. Murray was brought on
4 board. And correct me if that's not true.

5 But did you at any time tell Mr. Rossi prior to
6 the beginning of that test that you did not agree with the
7 protocol?

8 **A. I don't recall telling him that. But I do recall**
9 **that we expressed -- particularly Joe and I when we finally**
10 **made it down there -- our concerns were the deficiencies of**
11 **protocols supplied by Penon.**

12 Q. And when did you supply Dr. Rossi with your
13 perceived deficiencies?

14 **A. I don't recall exactly.**

15 Q. Was that in writing?

16 **A. I don't recall. I know for example, though, that**
17 **we -- as I mentioned, when Joe and I were down there, we**
18 **highlighted this ad nauseam. You were, in fact, there**
19 **yourself.**

20 Q. That was at the conclusion of the test; was it
21 not?

22 **A. What Rossi was claiming to be the conclusion.**

23 Q. Have you ever heard the term "the 350-day test"?

24 **A. I thought it was a 400-day test. Anyway, 350,**
25 **yeah, 350 out of 400, sure.**

1 out of 400 days; is that correct?

2 **A. I think it also requires that test start 60**
3 **days at or --**

4 Q. Sir, can you please answer the question. You
5 keep trying to side track. Answer the question and you can
6 make any statement after that that you want.

7 **A. Sorry about that.**

8 Q. But isn't it correct, sir, that the test that is
9 referenced as a guaranteed performance test in the license
10 agreement requires that it operate 350 out of 400 days?

11 **A. Yes. There's a test -- there's a requirement in**
12 **the operating agreement -- I'm sorry, license agreement**
13 **that a one-megawatt plant -- I guess it's referred to as a**
14 **one-megawatt plant -- be tested for 350 out of 400 days or**
15 **be operated for 350.**

16 Q. And, sir, when you use the term "350-day test" or
17 "400-day test," is it fair to assume that you were
18 referring to the contractual test?

19 MR. BELL: Objection to form.

20 BY THE WITNESS:

21 **A. Clearly Rossi wanted it to be that, right.**

22 BY MR. ANNESSER:

23 Q. Sir, I'm going to ask you again to answer the
24 question.

25 When you use the term "350-day test" or "400-day

1 test," are you referring to the test contemplated in the
2 license agreement? I'm not talking about the Miami test
3 I'm talking about when you use that term.

4 MR. BELL: Objection to form.

5 BY THE WITNESS:

6 A. Could I show me where the use that term?

7 BY MR. ANNESSER:

8 Q. We can get there, sir. Let me back you down for
9 a second.

10 Was there more than one test that was required or
11 contemplated anywhere in any agreement that was supposed to
12 run 350 to 400 days?

13 A. More than one test? Well, Rossi introduced this
14 commercial customer down there and he said he wanted to do
15 that for 350 days. In the agreement, that test was -- we
16 were supposed to conduct the 350-day test. That did not
17 require a commercial customer. That was not a requirement
18 at all. And it was supposed to start within 60 days of
19 delivery of the plant.

20 I'm going to stand up for a second if that's
21 okay.

22 THE VIDEOGRAPHER: We're off the record at 1:31
23 p.m.

24 (Brief pause.)

25 THE VIDEOGRAPHER: We're back on the record at

01/19/2017 John Thomas Vaughn

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1 1:31 p.m.

2 (Whereupon, Vaughn Deposition Exhibit 7 was marked
3 for identification.)

4 BY MR. ANNESSER:

5 Q. Sir, I'm going to show you an email dated
6 October 22, 2013, from you to Mr. Darden. It bears the
7 Bates number IH-000133919 and it has been marked as
8 Exhibit 7.

9 Go ahead and take a moment to read that.

10 **A. Okay.**

11 Q. Sir, at or around this time, October 22, 2013,
12 you were discussing with Mr. Darden the pros and cons of
13 using a six cylinder versus some other model or form of
14 E-Cat for a 350-day test; is that correct?

15 **A. Yes. We were discussing various different
16 designs to accommodate Rossi.**

17 Q. Now, in this, the 350-day test referenced, are
18 you referring to the guaranteed performance test?

19 **A. I am referring to the 350-day test. Presumably I
20 was referring to the guaranteed performance test as
21 referenced in the contract.**

22 At this time, this was shortly after -- I don't
23 remember exactly when the unit was delivered, but he's
24 still close to that delivery date. And there was -- again,
25 as I mentioned previously, I believe there was talk of, you

1 things, why do we care if it's a single unit, a six
2 cylinder or a clunky one megawatt. But, clearly, you're
3 your increasing -- as you're moving down the next spectrum,
4 you're increasing the likelihood that we would have to pay
5 Dr. Rossi.

6 In my opinion, it's a great day if we had to pay
7 him because we got something that works, works at a very
8 high real output and a high real COP and we can replicate
9 it. But, you know. . .

10 Q. But you may not want to do it that way because it
11 increases the likelihood of having to pay Dr. Rossi; that's
12 what you're saying?

13 A. What I'm saying --

14 MR. BELL: Objection to form.

15 BY MR. ANNESSER:

16 Q. That's a yes-or-no question, sir.

17 A. It's not a yes-or-no question, John, and you know
18 that. It's a -- you're trying to put words in my mouth.
19 You're saying blah, blah, blah isn't this what you're
20 saying. And I'm trying to tell you -- I already told you
21 what I'm saying.

22 We were trying to be accommodative to Rossi and
23 lower the hurdle in which he would have to be paid. Again,
24 you've got to balance that with actually, you know, having
25 to -- having responsibilities as a manager to lower the

1 chances that a company is going to have to make a big
2 company. I was saying here I'm just as happy. And -- you
3 know, if it's a low hurdle.

4 Q. In fact, I want to correct you, sir. You say [as
5 read]: But if a single cylinder unit passes the 350-day
6 test with a COP of greater than 2.6, then I'm going to be
7 almost as happy, not quite as happy as if we don't have to
8 pay 8.9 million, but almost as happy.

9 A. No, no, you're --

10 Q. These are your words, sir.

11 A. I know these are my words. Absolutely these are
12 my words.

13 But what I'm saying [as read]: But if a single
14 cylinder unit passes the 350-day test with a COP of greater
15 than 2.6 -- what I'm saying is that means we have to pay
16 him. I'm going to be almost as happy, I think. And
17 so. . .

18 Q. Almost as happy as if it fails?

19 A. No. As if it were a one-megawatt unit. Do you
20 want me to read the entire email for the record here so
21 that you don't take it out of context?

22 Q. It's in the record.

23 MR. BELL: It's in the record, so you don't have
24 to worry about it.

25

1 BY MR. ANNESSER:

2 Q. And isn't it true, sir, that Industrial Heat
3 agreed to use the six-cylinder test -- I'm sorry, the
4 six-cylinder E-Cat unit for the 350-day test?

5 MR. BELL: Objection to form.

6 MR. ANNESSER: What specifically is your
7 objection on that one?

8 MR. BELL: You asked him about Industrial Heat
9 and he's testifying about as J.T. Vaughn. Embedded in your
10 question is did they agree to use that unit for the
11 guaranteed performance test under the contract.

12 BY MR. ANNESSER:

13 Q. To your understanding, sir, did Industrial Heat
14 agree to use the six-cylinder unit for the testing?

15 A. There was an amendment that was proposed. I
16 don't remember if Dr. Rossi drafted it first or we drafted
17 it first. We were trying to accommodate his desires. I'm
18 highlighting this in this email.

19 And it was not signed by Rossi's partners, AEG,
20 and so it never went into effect. And both parties, Rossi
21 and us, I believe acknowledge that -- and I believe that's
22 also in emails. But you guys tell me if it's not.

23 Anyway, there was an amendment and it was never
24 signed by all parties.

25 Q. It was signed by Industrial Heat, was it not?

1 Q. Did it have to have a customer to satisfy the
2 350-day test requirements?

3 A. It did not. And we didn't -- again, we were
4 trying to be accommodative and, you know, a good partner to
5 Andrea. And he kept saying it was important to him.

6 And even though we didn't care, we weren't
7 against it. I mean, it wasn't necessarily a negative
8 thing. So we wanted to be accommodative to him on that
9 front because it doesn't necessarily preclude us, we didn't
10 think, from achieving our objectives.

11 Q. Because you could measure it without a customer?
12 You could measure the output without having a customer
13 looked up to the other end of the line?

14 A. Right.

15 Q. Was West Virginia ever proposed?

16 A. West Virginia?

17 Q. Yes, sir.

18 A. I don't recall. You know, I'm trying to
19 remember. I just don't recall.

20 Q. Did you, sir, personally ever attempt to obtain
21 approval to operate the one-megawatt plant in North
22 Carolina?

23 A. Did I ever personally attempt to?

24 Q. Obtain approval from any government agencies or
25 state or federal?

1 **A. Right. I do not know who owns JMC.**

2 Q. Okay. Isn't it true, sir, as of September 11,
3 2014 -- so after the term sheet had been signed -- you were
4 still anticipating the guaranteed performance test?

5 **A. Did you say is that true that we're still**
6 **anticipating the guaranteed performance test --**

7 Q. That the guaranteed performance test would be
8 performed?

9 **A. In September of 2014?**

10 Q. That's correct.

11 **A. I suppose so.**

12 Q. And that the guaranteed performance test would be
13 prepared and performed in Miami; is that correct?

14 **A. Andrea wanted to do the work in Miami for Johnson**
15 **Matthey.**

16 Q. That was not the question.

17 Was it your understanding at that time that the
18 guaranteed performance test, the 350-day test, would be
19 performed in Miami pursuant to the license agreement?

20 **A. Again, you know, you can -- you can ask that a**
21 **million different ways. But, yes, Andrea was doing that**
22 **work in Miami. And, you know, he was running a**
23 **one-megawatt unit in Miami and he did that for a period of**
24 **350 days or thereabouts.**

25 Q. And you understood that to be the 350-day test

1 pursuant to the license agreement; isn't that true, sir?

2 **A. I think that that's debatable. But, clearly, if**
3 **he had performed, we were eager to pay.**

4 Q. So if you were pleased with the results, it was
5 the guaranteed performance test; but if you were not
6 pleased with the result, it was not?

7 **A. That's not at all what I said.**

8 Q. Sir --

9 **A. We were trying to accommodate --**

10 MR. BELL: You've answered the question.

11 **THE WITNESS: I can't answer the question.**

12 MR. BELL: You have answered the question.

13 BY MR. ANNESSER:

14 Q. Go ahead and finish, sir.

15 Go ahead and finish.

16 **A. I was just going to say that's consistent with**
17 **what I've said previously. Our goal has been to**
18 **accommodate Andrea and to determine the state-of-the-art,**
19 **whether or not it really works. And if it does, you know,**
20 **we are happy to pay him.**

21 Q. Do you understand the 350-day test to be carried
22 out in Miami could result in a payment of \$89 million to
23 Dr. Rossi as it was the test contemplated by the license
24 agreement? It's a yes-or-no answer and then you can
25 explain again if you need to.

1 MR. BELL: Objection, asked and answered.

2 BY THE WITNESS:

3 A. The -- could you state the question again,
4 please.

5 BY MR. ANNESSER:

6 Q. As of September 11, 2014, sir, it was your
7 understanding that if Dr. Rossi performed the 350-date,
8 also known as the guaranteed performance test, while in
9 Miami successfully, he would be entitled to payment of the
10 \$89 million pursuant to the license agreement?

11 A. If he were successful, our goal was to pay him.

12 (Whereupon, Vaughn Deposition Exhibit 14 was marked
13 for identification.)

14 BY MR. ANNESSER:

15 Q. Sir, I'm going to show you a document marked as
16 Exhibit 14. You had mentioned that you had prepared a
17 timeline. Is this the timeline you prepared, sir?

18 A. I'm not sure. I'd have to review it.

19 Q. Okay. While you're doing that, I will just read
20 for the record that is an email from J.T. Vaughn to John
21 Mazzarino and Tom Darden dated September 11, 2014, with the
22 Bates number IH-00107550.

23 Sir, specifically I'm going to ask you to look at
24 the second page, the last paragraph on the page where it
25 says May to September of -- I believe that's under 2014; is

1 at the Miami location?

2 **A. Clearly, you know, Tom and Penon traded emails**
3 **about a test protocol. That is -- that's true.**

4 Q. Did at any time you or Mr. Darden, to your
5 knowledge, tell Mr. Penon that he is not the ERV --

6 **A. I'm not sure.**

7 Q. -- responsible for the testing?

8 **A. I'm not sure.**

9 Q. From these emails, would you draw the conclusion
10 that he believed he would be performing a test on the E-Cat
11 in Miami?

12 MR. BELL: That Penon believed.

13 BY MR. ANNESSER:

14 Q. Yes.

15 **A. Penon clearly was planning to perform an analysis**
16 **of Dr. Rossi's E-Cat MW1 as referenced.**

17 Q. And did at any time you tell Dr. Penon that this
18 was not the guaranteed performance test, that you were not
19 the ERV, you were not authorized to do a test?

20 **A. I don't recall.**

21 Q. Now, when the plant was sent down and set up for
22 testing, Mr. Dameron came down in early February after
23 Mr. Penon had sent in his test equipment; is that correct?

24 **A. I believe that's correct.**

25 Q. And did he come to you and tell you, no, this

1 know, those sorts of -- I don't know.

2 Q. So sitting here today, you do not know?

3 A. I do not know?

4 Q. Other than -- other than the number of smaller
5 E-Cats within this one-megawatt plant that were operating
6 at any time, you do not know of any other --

7 A. I don't know if I know of any other.

8 Q. You don't know what you don't know.

9 A. That's right. I'm sorry.

10 Q. Either you know or you don't. If you don't, the
11 answer is no.

12 A. I'd have to go through and review all of this and
13 see if the backup detail exists or not.

14 Q. Did you ever receive statements from J.M. as to
15 the amount of power that they received and requested that
16 you send them an invoice for that power?

17 A. I did.

18 Q. Did you ever send an invoice?

19 A. Not to my recollection.

20 Q. Why?

21 A. Because we -- we could -- that was irrelevant to
22 us. And if, in fact, it were a fraud, we didn't want to
23 participate in that.

24 Q. So you believed at the time it could be a fraud?

25 A. We didn't know.

1 Q. Now, Industrial Heat paid two people to be there,
2 Mr. Fulvio -- I'm sorry, Fulvio Fabiani and Mr. Barry West.
3 They were there --

4 A. At the request of Dr. Rossi. We were -- Rossi
5 should have been paying them. We were, again, being
6 generous and accommodative. We paid them.

7 Q. So you're telling me that you knew this was the
8 350-day test and you didn't think it prudent to put anyone
9 else in that plant to monitor, figure out what's going on,
10 what is he doing that we're not doing?

11 MR. BELL: Objection to form.

12 BY THE WITNESS:

13 A. Andrea would only allow Barry and Fulvio. And,
14 you know, those were the guys that he wanted.

15 BY MR. ANNESSER:

16 Q. Did you request additional people come on?

17 A. Yes. I told you I tried to take Joseph Murray
18 down there. And we also planned to have other of our staff
19 rotate -- excuse me, rotate in and out. So we talked
20 amongst our engineering and operational team to -- about
21 having people go down there and spend long periods of time
22 down there.

23 Q. Okay. Prior to Joseph Murray coming on board in
24 the middle of 2015, who was your engineering team?

25 A. As I told you previously, T. Barker Dameron and I

1 which I believe you're referencing Paul Lamacraft says
2 something that it was a core element or something like
3 that. And pull the email, please. Let's review it.

4 Q. I'm asking you if you've -- if you've got
5 information on an email, he said it was a core element?

6 A. No. He said -- he referenced it as a core
7 element. He didn't say it was the core element. And we've
8 been very clear and I was very clear with Woodford -- well,
9 Lamacraft owned this. But they're investing in a strategy,
10 a portfolio-based approach to the LENR sector.

11 Rossi's technology could turn out to work and it
12 may not. We don't know. It's a variable among many in the
13 portfolio and that's what you're investing in.

14 Q. Do you have any evidence, sir, to support the
15 claims by Industrial Heat and IPH international that
16 Dr. Rossi has not paid appropriate or taxes on the money
17 that he had received?

18 A. I believe that Craig Casserino's accountant was
19 also Andrea's account and had reported to Craig that he
20 never paid?

21 Q. Do you have any personal knowledge, sir?

22 A. Sir, I'm telling you what I have. A conversation
23 with --

24 Q. I'm asking -- I'm not asking who --

25 MR. BELL: He's distinguishing between what

1 somebody told you and what you personally know yourself.

2 **THE WITNESS: I have not personally reviewed**
3 **Andrea's taxes. Your mom may have, but I haven't.**

4 BY MR. ANNESSER:

5 Q. Interesting answer, sir.

6 Now, with respect to that, has Industrial Heat at
7 all been damaged by any payment or failure to pay taxes by
8 Dr. Rossi?

9 **A. It was a requirement of the license agreement**
10 **that he do so.**

11 Q. Okay. There were lots of requirement in the
12 license agreement.

13 **A. Sure.**

14 Q. So what I'm asking is have you been damaged?

15 **A. Sure. I live in the United States and he didn't**
16 **pay his taxes.**

17 Q. And that's the same way that Industrial Heat's
18 been damaged, correct?

19 **A. Industrial Heat is a company in the United**
20 **States. If the tax revenue in the United States decreases,**
21 **it affects the companies and the citizens within that**
22 **territory.**

23 Q. Did you ever tell Dr. Rossi that you wanted to
24 withhold taxes from that payment to assure that those would
25 be paid?

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

ANDREA ROSSI and LEONARDO
CORPORATION,

Plaintiffs,

VS.

No. 1:16-cv-2119-CMA

THOMAS DARDEN; JOHN T. VAUGHN;
INDUSTRIAL HEAT, LLC; IPH
INTERNATIONAL B.V.; and
CHEROKEE INVESTMENT PARTNERS,
LLC,

Defendants.

INDUSTRIAL HEAT, LLC and IPH
INTERNATIONAL B.V.,

Counter-Plaintiffs,

vs.

ANDREA ROSSI and LEONARDO
CORPORATION,

Counter-Defendants,

and

J.M. PRODUCTS, INC.; HENRY JOHNSON; FABIO PENON; UNITED STATES QUANTUM LEAP, LLC; FULVIO FABIANI; and JAMES BASS,

Third-Party Defendants.

HIGHLY CONFIDENTIAL

Videotaped Deposition of JOSEPH ALAN MURRAY
(Taken by Plaintiff)
Raleigh, North Carolina
Friday, February 17, 2017

Reported in Stenotype by
Lauren M. McIntee, RPR
Transcript produced by computer-aided transcription

1 you see that drop. That makes sense. And then sometime
2 in October they brought all of the units back online and
3 the power goes up.

4 So all of the trends seem to be consistent
5 except for this period of time when, in about from
6 middle of November to the beginning of December where
7 you have a power level absorbed into the building lower
8 than the measured. So that would give -- to me, there
9 are three potential explanations. Number one, Florida
10 Power and Light could be wrong. Number two, the
11 measurements made by Fabiani and Penon could be wrong.
12 And number four or -- I'm sorry, number three, the data
13 could have been manipulated. On either part, on either
14 party.

15 Q. Do you have any evidence that the data has
16 been manipulated --

17 A. No, I don't.

18 Q. -- by either one?

19 A. Not by Florida Power and Light or by Fabiani
20 or Penon.

21 Q. Okay. So you have no evidence of
22 manipulation. So what are you opining to specifically
23 here?

24 A. Specifically, in this period it was, it was
25 determined by Mr. Penon that the measurements, the

1 the opinions you've set forth here, do you plan on
2 offering any other opinion testimony?

3 **A. Not as far as I'm aware at this point.**

4 Q. Are you planning on opining that there was
5 some sort of manipulation or nefarious activities taken
6 by Dr. Rossi or any of the other third-party Defendants
7 in this case?

8 **A. Not that I, not that I would imagine at this**
9 **point, no.**

10 Q. Have you seen any evidence of nefarious
11 activities?

12 **A. Not at this point.**

13 Q. Okay. Is it your understanding then, sir,
14 that in all likelihood or is it your opinion that the
15 problems with the data are the result of a either poor
16 test plan, well, a poor test plan?

17 **A. My opinion would be that the, the results are**
18 **a combination of poor test plan, poor documentation, and**
19 **a completely inadequate selection of the sensors used**
20 **for this system.**

21 Q. Okay. Are you planning on opining that the
22 test plan was not followed?

23 **A. Mr. Penon provided me with a test plan on the**
24 **day, on February 16, 2016, trying to remember that day**
25 **is correct.**

VALIDATION AGREEMENT

THIS VALIDATION AGREEMENT (this "**Agreement**"), is made and entered into as of April 29, 2013 by and among LEONARDO CORPORATION, a New Hampshire Corporation ("**Leonardo**"), ANDREA ROSSI ("**Rossi**"), Ruggero Giunti (the "**Validation Agent**") and IPH INTERNATIONAL B.V., a Netherlands company (the "**Company**"). Each of Leonardo, Rossi, Validation Agent, IP Attorney and the Company are referred to herein as a "**Party**" and collectively as the "**Parties**."

WHEREAS, Leonardo and/or Rossi are the sole owners of the patents, designs, trade secrets, technology, know-how (including all the knowledge necessary to produce thermal energy by means of apparatuses derived from the technology), products and business plans and all other intellectual property related directly or indirectly to energy production and conversion technologies and to the development, manufacture and sale of products using such technologies, including the Energy Catalyzer ("**E-Cat**") and the "**Hot Cat**" (collectively the "**E-Cat Products**"), the catalyzer formula (the "**Catalyzer Formula**") used to fuel the E-Cat and the "**Hot Cat**" and related energy production and conversion technologies (all of the foregoing being referred to herein collectively as the "**E-Cat IP**"), and Leonardo is the producer of certain components of such systems, all such E-Cat IP and E-Cat Products, including without limitation the 1MW E-Cat Product and the "**Hot Cat**," being described or referenced in more detail in the License Agreement, as defined below, and in the E-Cat IP and the other materials to be delivered to the Validation Agent pursuant to Section 1(a) below, and

WHEREAS, Leonardo, Rossi and Ampenergo, Inc. ("**AEG**") have granted to Industrial Heat, LLC an exclusive license to utilize the E-Cat IP and to manufacture and sell the E-Cat Products as set forth in that License Agreement among them dated as of October 26, 2012, together with any amendments thereto (the "**License Agreement**"), and

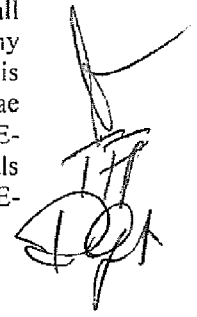
WHEREAS, Industrial Heat, LLC has assigned its interest under the License Agreement to the Company;

WHEREAS, the Validation Agent has agreed to provide certain services to Rossi, Leonardo and the Company in connection with the License Agreement as provided herein;

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Validation

- (a) No later than five (5) Business Days following successful "Validation of the Plant" as provided in Section 4 of the License Agreement, Leonardo and Rossi shall deliver to the Validation Agent, to be held in escrow and delivered to the Company or to Leonardo, as the case may be, on the terms and conditions set forth in this Agreement, the E-Cat IP and all other documents, manuals, technical data, formulae and materials necessary or useful to enable the Company to (i) operate the 1MW E-Cat Unit and the "**Hot Cat**" as described in the E-Cat IP and the other materials delivered to the Validation Agent, (ii) make E-Cat Products, and (iii) exploit the E-



Cat IP as contemplated by the License Agreement (collectively, the "**Technical Information**"); provided, however, that the Technical Information shall not include the Catalyzer Formula.

- (b) The Validation Agent shall review the Technical Information for the purpose of verifying whether or not, in the professional judgment of the Validation Agent, the Technical Information includes all items and materials that appear to be reasonably necessary or useful to enable the Company to build and operate the E-Cat Products (including a 1MW E-Cat Unit and a "Hot Cat" Unit), exclusive of the Catalyzer Formula. If the Validation Agent verifies that the Technical Information does include all information and materials that, in their professional judgment, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula, the Validation Agent shall deliver to Rossi, Leonardo, the Company and Henry W. Johnson, as Escrow Agent under that Escrow Agreement among Rossi, Leonardo, the Company and the Escrow Agent dated as of April 29, 2013 (the "Escrow Agreement"), an executed notice of verification in the form attached hereto as Exhibit A (the "**IP Verification Notice**") as soon as possible following verification, but in any event within thirty (30) Business Days following delivery of the Technical Information under Section 1(a) hereof (the "**Verification Deadline**"). For purposes hereof, the term "Business Day" shall mean any day other than a day on which commercial banks in New York, New York, are authorized or required by law to close.
- (c) The Validation Agent shall exercise due care, skill and diligence consistent with reasonable professional and industry standards applicable to it in performing its obligations under this Agreement.
- (d) The Validation Agent shall hold the Technical Information in escrow and deliver all of the Technical Information in their possession (i) to the Company immediately upon receipt of notice from the Escrow Agent that the Escrow Deposit (as defined in the Escrow Agreement) has been delivered to Rossi and/or Leonardo, or (ii) to Leonardo in the event the Validation Agent has not delivered the IP Verification Notice by the Verification Deadline. The Validation Agent shall use an internationally recognized and reliable private overnight or next-day commercial delivery service to send any Technical Information that the Validation Agent is required to transfer or deliver under this Agreement, provided that the Validation Agent is not responsible for any damage to or loss or destruction of such Technical Information while in the custody of such delivery service.
- (e) The Validation Agent shall not retain any copies of any of the Technical Information in any form following delivery of the Technical Information by the Validations Agents as provided in Section 1(d) above, and any such copies that may then be in the possession or control of the Validation Agent shall be destroyed concurrently with any such delivery. The Validation Agent shall provide a certification of compliance with this section promptly upon completion of his services as provided herein.
- (f) The Validation Agent shall have no liability to any of the parties hereto for any actions taken or not taken by him as provided herein, except with respect to matters constituting gross negligence, fraud, bad faith or willful misconduct. So long as the

Handwritten signature and initials, possibly reading 'TR' or 'TH', with a large 'X' mark above it.

foregoing standard of conduct is met by a Validation Agent, such Validation Agent shall have no liability on account of actions or inactions pursuant to or in connection with this Agreement.

- (g) The Validation Agent shall be entitled to fees from Leonardo, Rossi and the Company as provided in Exhibit B attached hereto. The Validation Agent shall also be entitled to reimbursement for their reasonable expenses incurred in connection with their performance of this Agreement. Leonardo, Rossi and the Company shall be jointly and severally liable to the Validation Agent for the payment of such fees and expenses; provided, however, that among themselves, Leonardo and Rossi, on the one hand, shall be responsible for fifty percent (50%) of such fees and expenses, and the Company, on the other hand, shall be responsible for fifty percent (50%) of such fees and expenses.

2. Confidentiality.

- (a) The Validation Agent shall maintain and protect the Technical Information as valuable proprietary and confidential information, using at least the same high level of care that he would use to protect his own valuable confidential information or trade secrets and in no event less than a reasonable degree of care. Except as and to the extent expressly required or permitted by this Agreement or otherwise authorized in writing by Rossi, Leonardo and the Company, the Validation Agent shall not:
 - (i) disclose the existence of this Agreement or the nature or any details of his services hereunder, or
 - (ii) disclose, transfer, make available or provide access to the Technical Information or contents of this Agreement to any person other than authorized employees of the Validation Agent, each of whom shall have been advised of the confidential nature of such information and shall have agreed in writing to hold the Technical Information in strict confidence as provided herein and to use such Technical Information only for purposes of performance by the Validation Agent of his duties on this Agreement, with Validation Agent to be responsible for any breach of this Agreement by his own employees; or
 - (iii) use the Technical Information in any manner or permit any person to use the Technical Information or take any action relating to the Technical Information, except as expressly provided for in this Agreement.
- (b) Notwithstanding Section 2(a) or any other provisions of this Agreement, if the Validation Agent is legally compelled to disclose or release any information or materials comprising or relating to the Technical Information or the contents of this Agreement, the Validation Agent shall give prompt written notice of this fact to Rossi, Leonardo and the Company unless such notice is prohibited by applicable Law, and shall reasonably cooperate with Rossi, Leonardo and the Company as they may request (at the expense of Rossi, Leonardo and the Company) in undertaking to maintain the confidentiality of the Technical Information or to prohibit its wrongful use or disclosure.

3. Representations and Warranties.

(a) The Validation Agent represents and warrants that:

- (i) other than being a party to this Agreement, he is an independent third party and not an affiliated, associated or related entity to Rossi or Leonardo;
- (ii) he has the right and capacity to enter into this Agreement and fully perform all of his obligations and provide the services provided for under this Agreement; and
- (iii) all performance by or on behalf of the Validation Agent under this Agreement shall be conducted in good faith with no less than a reasonable degree of care.

(b) Leonardo and Rossi, jointly and severally, each hereby represents and warrants:

- (i) Leonardo and/or Rossi are the sole and exclusive legal and beneficial owners of the entire right, title, and interest in and to the Technical Information.
- (ii) the Technical Information constitutes all of the intellectual property necessary or useful in order for the Company to develop, manufacture, make, have made, use, have used, offer to sell, have offered for sale, sell, have sold, import, and have imported all the products deriving from the E-Cat IP.

4. Covenants and Agreements.

Leonardo and Rossi hereby grant to the Validation Agent all rights and licenses necessary to allow the Validation Agent to lawfully perform his obligations under this Agreement. The Validation Agent agrees, however, that he shall not acquire any right, title or interest in the Technical Information or any other confidential information disclosed to the Validation Agent in connection with this Agreement, except for the limited right to use such information solely to perform the duties of the Validation Agent as specified herein.

5. Miscellaneous.

- 5.1 **Notices.** All notices, requests, demands and other communications required or permitted to be given hereunder shall be in writing and shall be given personally, or sent by certified or registered mail, postage prepaid, return receipt requested, or sent for next Business Day delivery by Federal Express or another generally recognized courier service. Any such notice shall be deemed to have been given (a) when received, if delivered in person, or (b) on the next Business Day, if sent by prepaid Federal Express or other generally recognized courier service for next Business Day deliver, or (c) three (3) Business Days following the mailing thereof, if mailed by registered or certified first class U.S. mail, postage prepaid, return receipt requested, in each such case to the respective addresses of the parties as set forth on the signature pages hereto (or to such other address or addresses as a party may have advised the others by notice given in compliance with this section). A copy of all notices shall also be sent via e-mail to the e-mail addresses indicated on the signature pages hereto, but the failure to give any such e-mail notice shall not affect notice otherwise validly given as provided in this section.

- 5.2 **Assignment.** No party to this Agreement shall assign or otherwise transfer any of its rights, or delegate or otherwise transfer any of its obligations or performance under this Agreement, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the other party's prior written consent.
- 5.3 **Entire Agreement.** This Agreement (including the Exhibits and Schedules hereto) and the other agreements, certificates and documents specifically incorporated herein by reference thereto, or delivered pursuant to this Agreement contain the entire agreement among the parties with respect to the transactions described herein, and supersede all prior agreements, written or oral, with respect thereto.
- 5.4 **Waivers and Amendments.** This Agreement may be amended, superseded, canceled, renewed or extended, and the terms hereof may be waived, only by a written instrument signed by the Parties or, in the case of a waiver, by the Party waiving compliance. No delay on the part of any Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof.
- 5.5 **Governing Law and Dispute Resolution.** This Agreement shall be construed and enforced under the laws of the State of Florida without regard to the conflicts of law principles thereof that would defer to or result in the application of the substantive laws of another jurisdiction. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, may be asserted or litigated in any State or Federal Court sitting in Miami, Florida, USA, which the parties agree shall have jurisdiction to hear any such matter, without limiting any other jurisdictions where such matter may be properly heard.
- 5.6 **Force Majeure.** Neither Party shall be liable for any delay in the performance of its obligations hereunder to the extent such delay is due to events beyond its reasonable control including without limitation, acts of God, fire, flood or other natural catastrophe, acts of any government in its sovereign capacity (including but not limited to any rule, law, order, regulation or direction thereof, or of any department, agency or commission thereof), national emergencies, insurrections, riots, war or hostile activities, quarantine restrictions, embargoes, launch failures, strikes, lockouts, work stoppages or other labor difficulties and sun eclipse or solar outages; provided, that notice thereof is given to the other Party within thirty (30) days of the later to occur of such event and the date that the Party being affected by such event obtains actual knowledge of such event.
- 5.7 **Further Assurances.** Each Party shall do and execute, or arrange for the doing and executing of, each necessary act, document and thing to implement this Agreement.
- 5.8 **No Third-Party Beneficiaries.** This Agreement is for the sole benefit of the parties hereto and their respective permitted successor and [permitted] assigns and nothing herein, express or implied, is intended to or shall confer on any

other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement

- 5.9 **Variations in Pronouns.** All pronouns and any variations thereof refer to the masculine, feminine or neuter, singular or plural, as the context may require.
- 5.10 **Headings, References.** The headings in this Agreement are for reference only, and shall not affect the interpretation of this Agreement. All references herein to Sections, subsections, clauses, Exhibits, and Schedules shall be deemed references to such parts of this Agreement, unless the context shall otherwise require.
- 5.11 **Exhibits and Schedules.** The following Exhibits and Schedules are attached to this Agreement and incorporated herein:

[Signatures on next page]

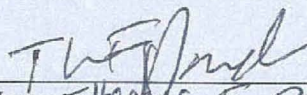
Three handwritten signatures are visible on the right side of the page. The top signature is a cursive 'B'. The middle signature appears to be 'TFF'. The bottom signature is a more complex cursive signature, possibly 'J. G. J.'.

IN WITNESS WHEREOF, the Parties hereto intending to be legally bound hereby,
have duly executed this License Agreement on the date first above written.

IPH INTERNATIONAL B.V.

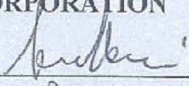
By: IPH Management, LLC, Managing Director

By:

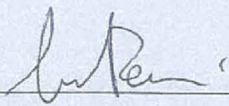

Name: THOMAS F. DARDEN
Title: MANAGER
Address for Notices:
111 East Hargett Street, Suite 300
Raleigh, NC 27601
Email: tdarden@industrialheat.co

LEONARDO CORPORATION

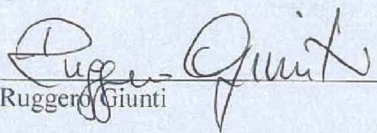
By:


Name: ROSSI ANDREA
Title: CEO AND PRESIDENT
Address for Notices:
Andrea Rossi
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

ROSSI


Andrea Rossi
Address for Notices:
1331 Lincoln Rd., Apt. 601
Miami Beach, FL 33139
Email: con333@libero.it

VALIDATION AGENT:


Ruggero Giunti

Address for Notices:

Via Forli 14
57016 Rosignano Solvay (Livorno)
Italy

EXHIBIT A

IP Verification Notice

Leonardo Corporation
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

IPH International B.V.
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

IP VERIFICATION NOTICE

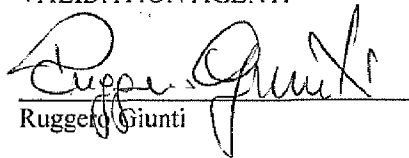
DATED: 02.05., 2013

Ruggero Giunti, as the Validation Agent under that certain Validation Agreement dated as of April 29, 2013, together with any amendments thereto, by and among Leonardo Corporation, Andrea Rossi, IPH International B.V. and the undersigned (the "Validation Agreement") (all capitalized terms used herein and not otherwise defined shall have the same meanings assigned to them in the Validation Agreement), and pursuant thereto does hereby certify to IPH, Leonardo and Rossi as follows:

The Technical Information includes all information and materials that, in the professional judgment of the Validation Agent, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula.

WITNESS the following signatures as of the date first above written.

VALIDATION AGENT:


Ruggero Giunti

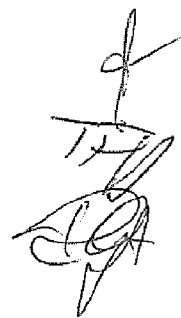


EXHIBIT B

Dott. Ing. Ruggero Giunti
 Albo dell'Ordine degli Ingegneri della Provincia di Livorno n. 1476
 Via Forlì n. 14
 57016 Rosignano Solvay (LI)
 Codice Fiscale GNTRGR59C31I192N
 Cell. 0039 340 10 89 204

Egregia Azienda,

Dopo colloquio intercorso con il Vs. Ing. Fabiani, esplicativo al fine del mio eventuale incarico professionale da parte Vs., Vi sottopongo la seguente offerta di collaborazione:

La collaborazione consta in offrire la mia opera come Ingegnere incaricato della revisione della documentazione tecnica riguardante il modello/prototipo MW1-Ecat al fine di verificare se completa ed in grado di fornire esaustive informazioni al fine della duplicazione del suddetto prototipo (ad esclusione del segreto industriale interno ai "reattori").

Tale revisione comporterà una relazione nella quale indicherò se la documentazione presa in esame risulta essere esaustiva o necessita di documentazione aggiuntiva (specificando la tipologia della documentazione mancante).

In tal caso rimarrò a Vs. disposizione per esaminare la nuova documentazione e redigere la dichiarazione di completezza della documentazione tecnica a me consegnata che io trasmetterò direttamente al Vs. Cliente al momento della Vs. richiesta.

Per tale opera professionale, comprensiva di ore/lavoro al fine dell'esame della documentazione e delle varie relazioni e dichiarazioni, sono qui a richiedere un compenso di 2.000,00 (Duemila) Euro al netto delle tasse.

Nell'attesa dell'accettazione da parte Vs. della presente offerta, vogliate accettare i miei più cordiali saluti.

Dott. Ing. Ruggero Giunti

Dott. Ing. Ruggero GIUNTI
 ORDINE INGEGNERI PROV. LIVORNO
 SEZ. A Ing. Civile - Ambientale
 N. 1476 Ing. Industriale
 Ing. dell' Informazione

X ACCETTAZIONE E INCARICO: AUTORIZZAZIONE



E.F.A. srl
 Sede Legale: Viale G. Mazzini 55
 cap. 00195 - Roma
 Stabilimento: Via del Commercio 36
 cap. 44123 Ferrara
 C.F./P.IVA 02826711208

FABIANI

[Handwritten signature of Fabiani]

E.F.A. S.R.L.
 Amministratore Unico
 (Dott.ssa Maddalena Pascucci)

[Handwritten signature of Maddalena Pascucci]

[Handwritten signature]

EXHIBIT B

Dott. Ing. Ruggero Giunti
 Albo dell'Ordine degli Ingegneri della Provincia di Livorno n. 1476
 Via Forlì n. 14
 57016 Rosignano Solvay (LI)
 Codice Fiscale GNTRGR59C311192N
 Cell. 0039 340 10 89 204

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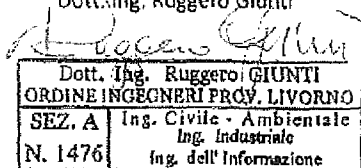
Tale revisione comporterà una relazione nella quale indicherò se la documentazione presa in esame risulta essere esaustiva o necessita di documentazione aggiuntiva (specificando la tipologia della documentazione mancante).

In tal caso rimarrò a Vs. disposizione per esaminare la nuova documentazione e redigere la dichiarazione di completezza della documentazione tecnica a me consegnata che io trasmetterò direttamente al Vs. Cliente al momento della Vs. richiesta.

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Nell'attesa dell'accettazione da parte Vs. della presente offerta, vogliate accettare i miei più cordiali saluti.

Dott. Ing. Ruggero Giunti



X ACCETTAZIONE E INCARICO: AUTORIZZAZIONE



E.F.A. srl
 Sede Legale: Viale G. Mazzini 55
 cap. 00185 - Roma
 Stabilimento: Via del Commercio 36
 cap. 44123 Ferrara
 C.F./P.IVA 02826711208

FABIANI

E.F.A. S.R.L.
 Amministratore Unico
 (Dott.ssa Maddalena Pascucci)

EXHIBIT A

IP Verification Notice

Leonardo Corporation
1331 Lincoln Road, Apartment 601
Miami Beach, Florida 33139

IPH International B.V.
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601

Henry W. Johnson
7900 Glades Road, Suite 530
Boca Raton, Florida 33434

IP VERIFICATION NOTICE

DATED: MAY 10, 2013

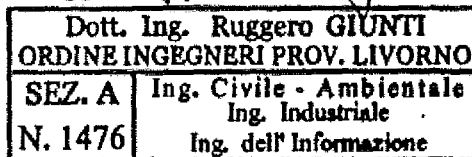
Ruggero Giunti, as the Validation Agent under that certain Validation Agreement dated as of April 29, 2013, together with any amendments thereto, by and among Leonardo Corporation, Andrea Rossi, IPH International B.V. and the undersigned (the "Validation Agreement") (all capitalized terms used herein and not otherwise defined shall have the same meanings assigned to them in the Validation Agreement), and pursuant thereto does hereby certify to IPH, Leonardo and Rossi as follows:

The Technical Information includes all information and materials that, in the professional judgment of the Validation Agent, appear reasonably necessary or useful to enable the Company to build and operate the E-Cat Products, exclusive of the Catalyzer Formula.

WITNESS the following signatures as of the date first above written.

VALIDATION AGENT:


Ruggero Giunti



UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO: 1:16-cv-21199-CMA

ANDREA ROSSI, ET AL.,

Plaintiffs,

vs.

THOMAS DARDEN, ET AL.,

Defendants.

PERLMAN, BAJANDAS, YEVOLI &
ALBRIGHT, P.L.
282 CATALONIA AVENUE
SUITE 200
CORAL GABLES, FL 33134
Tuesday, February 14, 2017
8:01 a.m. - 3:16 p.m.

VIDEOTAPED DEPOSITION OF SLOCUM HATCH FOGLEMAN
(Corporate Representative of IPH International BV)

Taken on behalf of the Plaintiff before
Elizabeth Cordoba, RMR, CRR, FPR, Notary Public in
and for the State of Florida at Large, pursuant to
Plaintiff's Notice of Taking Deposition in the above
cause.

1 A. No.

2 Q. Does anyone else from IPH or would anybody else
3 from IPH be able to answer this question better than you?

4 A. I don't know that.

5 Q. Okay. Paragraph 64 states, "Despite Rossi's
6 presence and participation in the testing in North
7 Carolina, the E-Cat testing in North -- excuse me -- the
8 E-Cat testing in North Carolina was never able reliably or
9 credibly to reproduce the COP of 10.5 as reported by Penon
10 or even reach the lowest threshold identified in the
11 license agreement, which was a COP of 4.0."

12 What evidence is IPH aware of to support that
13 allegation?

14 A. The same evidence that Industrial Heat, LLC has
15 to support that evidence.

16 Q. And did you talk to somebody from Industrial
17 Heat about that allegation?

18 A. No.

19 Q. Do you have any independent knowledge about
20 that allegation other than what Industrial Heat knows?

21 A. No.

22 Q. Does anyone else from IPH or would anyone else
23 from IPH be better able to answer this question?

24 A. I don't know that.

25 Q. Okay. If you go to paragraph 66 on Page 43,

1 the last sentence of paragraph 66 states, "None of the
2 testing replicated or came close to replicating the high
3 COP results previously claimed by Leonardo, Rossi and
4 Penon or otherwise generated in measurable excess energy."

5 What evidence does IPH have in support of that
6 allegation?

7 A. The same evidence that Industrial Heat, LLC,
8 has to support that evidence.

9 Q. Did you talk to somebody from Industrial Heat
10 about that allegation?

11 A. No.

12 Q. Does IPH have independent knowledge other than
13 what IH knows?

14 A. No.

15 Q. Would anyone from IPH be able to better answer
16 that question?

17 A. I don't know that.

18 Q. Okay. Paragraph 68 on Page 43 goes all the way
19 to 44, states, "In 2014, knowing that the high COP results
20 that Leonardo, Rossi and Penon had previously claimed
21 could not be replicated by the various testing by E-Cat
22 reactors in North Carolina, some done at the direct
23 participation of Rossi, or even by the scientists in
24 Lugano, though Rossi had significant control over their
25 testing, Leonardo, Rossi and others devised a scheme to

1 Q. And did you speak to anyone from Industrial
2 Heat about that?

3 A. No.

4 Q. And does IPH have any knowledge independent of
5 what Industrial Heat knows?

6 A. Not to my knowledge.

7 Q. Would anyone from IPH be better able to answer
8 that question?

9 A. I don't know that. I can't speak for anyone
10 else.

11 Q. Paragraph 95 on Page 52 states, "However, after
12 numerous attempts, both with and without Rossi's
13 involvement, counter-plaintiffs have been unable, using
14 the transfer to E-Cat IP, to replicate the results
15 included in the evaluation report purportedly certifying
16 validation, that validation was achieved from April 30th
17 to May 1, 2013, or otherwise generate measurable excess
18 energy."

19 What proof was IPH have with respect to that
20 allegation?

21 A. The same proof that Industrial Heat, LLC has to
22 support that allegation.

23 Q. Did you speak to anyone at Industrial Heat
24 about that allegation?

25 A. No.

1 Q. Does IPH have any independent knowledge outside
2 of what Industrial Heat knows?

3 A. Not to my knowledge.

4 Q. Would anyone from IPH be better able to answer
5 that question?

6 A. I don't know that. I can't speak for anyone
7 else.

8 Q. Paragraph 96 states, "Only one of three
9 conclusions can be drawn from the foregoing facts. One,
10 Leonardo and Rossi did not transfer and deliver all E-Cat
11 IP to counter-plaintiffs.

12 "Two, validation was never achieved and Penon's
13 reported COP calculations were false or three, both."

14 Are you aware of any other conclusions that
15 could be drawn from those facts?

16 A. No.

17 Q. Did you speak to anyone from Industrial Heat
18 about this allegation?

19 A. No.

20 Q. Did Industrial Heat have the ability or
21 authority to execute contracts on behalf of IPH?

22 A. I'm not aware of any.

23 Q. Okay. Did IPH have the ability to -- excuse
24 me. Did IH have the ability to enter contracts with
25 people about the testing of the plant in Florida?

1 Investment Partners?

2 A. Yes.

3 Q. Okay.

4 A. I'm sorry. You said Woodford Investment
5 Partners?

6 Q. Yeah. Did I misstate that?

7 A. That is not the name, by my recollection.

8 Q. What was the name?

9 MR. LOMAX: Objection to the form of the
10 question.

11 THE WITNESS: We -- we refer to Woodford as
12 Woodford Funds. There are two specific Woodford
13 Funds that invested as part of that restructuring or
14 capital raise.

15 BY MR. CHAIKEN:

16 Q. Okay. Is IPH wholly owned by IH directly or
17 indirectly today? And I know I may have asked that
18 earlier, but I just want to make it very clear.

19 In -- in the structure that it was re -- in
20 the -- in the restructuring of the entities, sitting here
21 today, is IPH International BV directly or indirectly
22 owned by Industrial Heat, LLC?

23 A. No.

24 Q. Okay. Turning back to the fourth amended
25 counterclaim, paragraph 103 on Page 54, paragraph 103

1 states, "Notwithstanding the clarity of the
2 confidentiality provisions set forth above, Rossi, both
3 individually and on behalf of Leonardo as its owner and
4 sole operating officer, repeatedly violated the
5 confidentiality provisions."

6 What information or proof does IPH have in
7 support of that allegation?

8 A. The same information that Industrial Heat, LLC
9 has to support that allegation.

10 Q. Did you speak to anyone from Industrial Heat
11 about that?

12 A. No.

13 Q. Does IPH have any information independent of
14 Industrial Heat?

15 A. Not to my knowledge.

16 Q. Would anyone from IPH be able to better answer
17 my questions regarding that allegation?

18 A. I can't speak for anyone else. I don't know
19 that.

20 Q. Okay. Paragraph 104 on Page 54 states,
21 "Addressing solely the time period prior to the filing of
22 their complaint in April 2016, Leonardo and Rossi violated
23 the first confidentiality provision by disclosing various
24 specific terms of the agreement.

25 "Paragraph A, Leonardo and Rossi disclosed that

1 their agreement with counter-plaintiffs required a test of
2 the plant."

3 What proof does IPH have in support of that
4 allegation?

5 A. The same information that Industrial Heat, LLC
6 has to support that allegation.

7 Q. Do you have any independent knowledge other
8 than what Industrial Heat has?

9 A. No.

10 Q. Did you speak to anyone from Industrial Heat
11 prior to coming here today about that allegation?

12 A. No.

13 Q. Would anyone from IPH be able to better answer
14 my questions?

15 A. I don't know that. I can't speak for anyone
16 else.

17 Q. Okay. Paragraph B states -- well, before I get
18 on to paragraph B, paragraph A, do -- does IPH know
19 exactly when Leonardo and Rossi made that disclosure?

20 A. IPH has the same information that Industrial
21 Heat has.

22 Q. Okay. Does IPH know, sitting here today, when
23 that breach of the confidentiality provision was made?

24 A. IPH would know the same thing that Industrial
25 Heat, LLC, knows.

1 Q. But I am asking what you know, sitting here
2 today.

3 A. Me personally?

4 Q. No. You on behalf of IPH.

5 A. IPH knows the same thing Industrial Heat, LLC,
6 knows.

7 Q. Okay. But you are here on behalf of IPH,
8 correct?

9 A. Yes.

10 Q. Okay. I am asking what IPH knows, sitting here
11 today?

12 A. I didn't discuss this with anyone at IH, so no,
13 I don't personally know.

14 Q. I am not asking what you personally know. I am
15 asking what IPH knows.

16 MR. LOMAX: Objection to the form of the
17 question.

18 THE WITNESS: IPH know the same thing that
19 Industrial Heat, LLC knows.

20 BY MR. CHAIKEN:

21 Q. Okay. Sitting here today, IPH can't answer my
22 question?

23 MR. LOMAX: Objection to the form of the
24 question.

25 THE WITNESS: IPH's answer is that IPH has the

1 same information that Industrial Heat, LLC has.

2 BY MR. CHAIKEN:

3 Q. Okay. Let's go to paragraph B. "Leonardo and
4 Rossi disclose that their agreement with
5 counter-plaintiffs required a test to be conducted over
6 400 days."

7 What evidence does IPH have in support of that
8 allegation?

9 A. The same information that Industrial Heat, LLC,
10 has.

11 Q. And did you speak to anyone from Industrial
12 Heat about it?

13 A. No.

14 Q. And does IPH have any knowledge independent of
15 what Industrial Heat knows?

16 A. Not to my knowledge.

17 Q. And does anyone else from IPH have better
18 information about this than you?

19 A. I can't speak for anyone else. I don't know
20 that.

21 Q. Paragraph C states, "Leonardo and Rossi
22 disclosed that their agreement with counter-plaintiffs
23 required a test involving 350 days of operation at the
24 E-Cat plant."

25 What proof or evidence does IPH have in support

1 of that allegation?

2 A. The same information that Industrial Heat, LLC
3 has to support that allegation.

4 Q. Did you speak to anyone from Industrial Heat
5 about that allegation?

6 A. No.

7 Q. Does IPH have any knowledge independent of what
8 Industrial Heat knows?

9 A. Not to my knowledge.

10 Q. Would anyone from IPH have better knowledge
11 than you?

12 A. I don't know that. I can't speak for anyone
13 else.

14 Q. Paragraph D states, "Leonardo and Rossi
15 disclosed that their agreement with counter-plaintiffs
16 required a guaranteed performance or a guarantee of
17 performance test."

18 What proof or evidence does IPH have in support
19 of that allegation?

20 A. The same information that Industrial Heat, LLC
21 has to support that allegation.

22 Q. Did you speak to anyone from Industrial Heat
23 about that?

24 A. No.

25 Q. Does IPH have any knowledge independent of what

1 Industrial Heat knows?

2 A. Not to my knowledge.

3 Q. Would anyone from IPH be better able to answer
4 that question?

5 A. I don't know that. I can't speak for anyone
6 else.

7 Q. Okay. Going to Page 55, paragraph 106, "IPH
8 alleges that Leonardo and Rossi violated the second
9 confidentiality provision by disclosing various
10 information about the E-Cat IP, specifically paragraph A.
11 Leonardo and Rossi, without any written waiver from IPH,
12 provided samples of the E-Cat fuel to the scientists
13 preparing the Lugano report or authorizing scientists to
14 obtain samples."

15 What proof does IPH have in support of that
16 allegation?

17 A. The same information that Industrial Heat, LLC
18 has. And I see there is a reference to an exhibit.

19 Q. Yeah. Okay. Did you speak to anyone from
20 Industrial Heat about that allegation?

21 A. No.

22 Q. Does IPH have any knowledge independent of what
23 Industrial Heat knows?

24 A. Not to my knowledge.

25 Q. Do you know if Tom Darden or JT Vaughn approved

1 Leonardo and Rossi providing samples to the scientists who
2 prepared the Lugano report?

3 A. No.

4 Q. Would anyone from IPH other than yourself have
5 any additional information regarding these allegations?

6 A. Not to my knowledge.

7 Q. Do you know how IPH has been harmed or if IPH
8 has been harmed as a result of this disclosure?

9 A. Other than as stated in this document?

10 Q. Yeah.

11 A. A breach of contract. We went over this
12 before.

13 Q. Right. But this is a different breach of
14 contract, right?

15 A. It is a different allegation.

16 Q. Right. Right. It is a -- it is a different
17 allegation. So has IPH been harmed separately as a result
18 of the violation of the confidentiality provision versus
19 providing or -- or delivering the plant late?

20 A. It's -- it's the breach of contract that's --
21 that's the -- leads to the damage in this document.

22 Q. Right. But there are separate breaches, right?

23 A. Yes.

24 Q. Okay. So one breach that we talked about
25 earlier was the plant was delivered not timely or

1 untimely. Would you agree with that?

2 A. Yes. We did review that earlier.

3 Q. Okay. Now we are talking about a breach of the
4 confidentiality provision. Do you understand that?

5 A. Yes.

6 Q. Okay. Two different breaches, correct?

7 A. Yes.

8 Q. Okay. How has IPH been harmed by the breach of
9 the confidentiality provision?

10 A. The subject matter of the contract is
11 intellectual property that -- and the contract included
12 specific provisions to maintain confidentiality of that
13 information to protect the parties in the contract. So a
14 breach of that provision would be a direct violation of
15 the contract.

16 Q. Okay.

17 A. And by that disclosure of confidential
18 information into -- to persons outside the parties would
19 lead -- would, by my understanding, lead to damages.

20 Q. Okay. My question to you is, what are those
21 damages?

22 A. In paragraph 98 --

23 Q. Yep.

24 A. -- did we cover that? Is that what you are
25 asking?

1 Q. No. Well, I am asking you, is there a dollar
2 amount that you can attribute to this claim by IPH that
3 Leonardo and Rossi have violated the provisions of the
4 license agreement as it relates to confidentiality? So --

5 A. I think your question was about dollar amounts,
6 and the dollar amounts are stipulated in paragraph 98.

7 Q. Okay. Is there anywhere else that dollar
8 amounts are stipulated to or are alleged as it relates to
9 specifically the breach of the non-confidentiality
10 provision -- excuse me, breach of the confidentiality
11 provision?

12 MR. LOMAX: Objection to the form of the
13 question.

14 THE WITNESS: I don't recall that at this time.
15 BY MR. CHAIKEN:

16 Q. Looking at paragraph 98, which you referred to,
17 do you have that in front of you, 98?

18 A. Yes.

19 Q. You are saying that IPH has made a damage claim
20 for, at least in subparagraph A-98, 1.5 million and 10
21 million. See that?

22 A. Yes, I see that.

23 Q. Did IPH pay Leonardo 1.5 million?

24 A. No.

25 Q. Who did?

1 IPH right now. What is IPH seeking?

2 MR. LOMAX: Objection to the form of the
3 question.

4 THE WITNESS: IPH is specifically seeking the
5 damages that it incurred that are included in this
6 paragraph. And I have already said that it did not
7 pay the 1.5 million.

8 BY MR. CHAIKEN:

9 Q. Okay.

10 A. So to the extent the rest of these damages were
11 incurred by IPH, IPH is seeking those damages.

12 Q. Okay. And what specifically is the amount that
13 IPH is seeking?

14 MR. LOMAX: Objection to the form of the
15 question.

16 THE WITNESS: The \$10 million payment.

17 BY MR. CHAIKEN:

18 Q. IPH made the \$10 million payment to Leonardo?

19 A. Do you want to go through the transaction?

20 Q. Yeah. I am asking. Did IPH make the
21 \$10 million payment to Leonardo?

22 A. IPH -- IH, LLC, contributed the \$10 million in
23 capital to IPH and -- and then the \$10 million payment
24 to -- for the license payment --

25 Q. Okay.

1 A. -- of those charges.

2 Q. Do you have an approximate number as to what
3 that totals to?

4 A. I don't recall the total. I just remember the
5 list.

6 Q. Okay. Let's go back now to paragraph 106A and
7 what portion of those damages that IPH is seeking is
8 attributable to the breach of the confidentiality
9 provision?

10 MR. LOMAX: Objection to the form of the
11 question.

12 THE WITNESS: I'm not aware that the damages
13 have been bifurcated in that manner.

14 BY MR. CHAIKEN:

15 Q. Okay. Sitting here today, can IPH tell me how
16 much they have been damaged as a result of the breach of
17 the confidentiality provision as alleged in
18 paragraph 106A?

19 MR. LOMAX: Objection to the form of the
20 question.

21 THE WITNESS: Not specifically with respect to
22 106 -- we have not bifurcated the damages in that
23 way.

24 BY MR. CHAIKEN:

25 Q. Okay. Let's go to paragraph 106B. B states,

1 "Leonardo and Rossi, without any written waiver from IPH,
2 disclosed scientific information about the E-Cat fuels to
3 Norman Cook, a professor at Kansai University in Osaka,
4 Japan."

5 What proof or evidence does IPH have in support
6 of that allegation?

7 A. The same evidence that Industrial Heat, LLC has
8 to support the allegation. And there is a reference to an
9 exhibit.

10 Q. Right. And did you speak to anyone from
11 Industrial Heat about that allegation?

12 A. No.

13 Q. Does IPH have any knowledge independent of what
14 Industrial Heat knows?

15 A. Not that I'm aware of.

16 Q. Do you know if anyone from Industrial Heat or
17 whether Tom Darden or JT Vaughn approved of Leonardo and
18 Rossi sharing information with Dr. Cook?

19 A. No.

20 Q. Would anyone from IPH have any information
21 other than what you told me today?

22 A. I don't know that. I can't speak for anyone
23 else about that.

24 Q. Paragraph C states, "Leonardo and Rossi,
25 without any written waiver from IPH, have made public

1 comments about the E-Cat fuel sample on the Internet."

2 What proof or facts does IPH have in support of
3 those allegations?

4 A. The same support that Industrial Heat has --
5 Industrial Heat, LLC has to support the allegation.

6 Q. Did you speak to anyone from Industrial Heat,
7 LLC about that allegation?

8 A. No.

9 Q. Does IPH have any knowledge independent of what
10 Industrial Heat knows?

11 A. Not to my knowledge.

12 Q. Does anyone from IPH have better information
13 than you have?

14 A. I don't know that. I can't speak for anyone
15 else.

16 Q. Okay. Do you know what specific confidential
17 information Leonardo and Rossi disclosed that is violative
18 of the confidentiality provision?

19 A. I'm sorry. Restate, please.

20 Q. Yeah. Do you know what specific confidential
21 information Leonardo and Rossi disclosed that is violative
22 of the confidentiality provision?

23 A. I don't.

24 Q. Okay. Paragraph 113 on Page 56 states
25 "Leonardo and Rossi's failure to assign the license

1 patents caused IPH to suffer damages that is unable to
2 secure any value that might have been derived from having
3 control over the license and patents."

4 What proof or evidence do you have in support
5 of the allegations that Leonardo and Rossi failed to
6 assign license patents to IPH?

7 A. The same information that Industrial Heat, LLC
8 has to support the allegation.

9 Q. And did you speak to anyone from Industrial
10 Heat about that allegation?

11 A. No.

12 Q. Does IPH have knowledge independent of what
13 Industrial Heat knows?

14 A. Not to my knowledge.

15 Q. Would anyone from IPH be able to better answer
16 the question?

17 A. I don't know that. I can't speak for anyone
18 else.

19 Q. Is it your understanding that IPH is claiming
20 that the license that is at issue in this case is
21 valueless?

22 MR. LOMAX: Objection to the form of the
23 question.

24 THE WITNESS: Can you restate the question.

25 BY MR. CHAIKEN:

1 as a result of the claim that Leonardo and Rossi breached
2 the license agreement by failing to assign license
3 patents?

4 A. The same damages that we have reviewed in
5 paragraph 98.

6 Q. Is there a dollar amount, a dollar amount that
7 is in paragraph 98?

8 A. To my knowledge we haven't bifurcated the
9 dollar amounts in that manner.

10 Q. Okay. So you can't assign a specific dollar
11 amount to damages as a result of Leonardo and Rossi's
12 failure to assign license patents; is that correct?

13 MR. LOMAX: Objection to the form of the
14 question.

15 THE WITNESS: No.

16 BY MR. CHAIKEN:

17 Q. No, it is not correct or no, you can't?

18 A. We have not been able to assign a value to that
19 specific allegation.

20 Q. Okay. Paragraph 117 states on Page 57 that,
21 "Leonardo also failed to keep IPH informed of the progress
22 of the patent application related to the license patents.
23 And, finally, Leonardo, without prior consent from IPH,
24 abandoned several patent applications."

25 What evidence or proof does IPH have in support

1 of that allegation?

2 A. IPH has the same information that IH, LLC, has
3 to support that allegation.

4 Q. And did you speak to anyone from Industrial
5 Heat about that allegation?

6 A. No.

7 Q. And does IPH have any independent knowledge
8 regarding that allegation?

9 A. Not to my knowledge.

10 Q. Does anyone else from IPH have greater
11 information about that allegation than you?

12 A. I don't know that. I can't speak for anyone
13 else.

14 Q. Paragraph 116 states, "After executing the
15 license agreement, Leonardo filed patent applications
16 relating to license patents without informing IPH."

17 Do you know what patent applications those
18 were?

19 A. No.

20 Q. Do you know how many licensed patent
21 applications Leonardo and Rossi filed?

22 A. IPH -- I'm sorry, Industrial Heat, LLC would
23 have that information, so I would refer you to Industrial
24 Heat, LLC for that answer.

25 Q. Okay. Do you have any -- did you speak to

1 Industrial Heat about that?

2 A. No.

3 Q. Do you know what dollar amounts IPH is claiming
4 as a result of Leonardo's failure to inform IPH about
5 patent applications it was filing?

6 A. Did we cover this a few minutes ago?

7 Q. Different question. Pretty close. Pretty
8 similar but close.

9 A. But I'm not recalling.

10 Q. Sure. The other one talks about --

11 A. Why don't you just ask the question if it is a
12 different question.

13 Q. Sure. This one is specific to the allegation
14 that Leonardo filed patent applications relating --
15 relating to the license patents without informing IPH.
16 That is in paragraph 116.

17 And it was to combine it with 117 where
18 Leonardo filed to keep IPH informed about its patent
19 applications and abandoned several patent applications
20 without the written consent of IPH.

21 So taking 116 and 117 together, is there a
22 dollar amount that IPH is claiming as a result of the
23 breaches set forth in paragraphs 116 and 117?

24 MR. LOMAX: Objection to the form of the
25 question.

1 Q. Let me ask it this way, maybe we can clarify:
2 Is it your understanding that there is a difference
3 between a failure to assign licensed patents and a
4 failure to consult about existing patents?

5 A. No.

6 Q. There is no difference?

7 A. I'm sorry. If this is trying to confuse me, I
8 apologize. I'm --

9 Q. I am not trying to confuse you.

10 A. I am confused.

11 Q. Okay. I am absolutely not trying to confuse
12 you, but I am looking at your counterclaim, IPH's
13 counterclaim.

14 A. Okay.

15 Q. Is there a difference between what is alleged
16 in paragraph 113 and what is alleged in paragraphs 116 and
17 117, in your mind?

18 A. Yes.

19 Q. Okay. What is the difference?

20 A. 113 references licensed patents, patents, and
21 117 or I guess 116 refers to filed patent applications.

22 Q. Okay.

23 A. Those, while I'm not a patent expert, seem to
24 be different to me.

25 Q. Fair enough. And I treated them as different

1 myself. So I was asking, is there a difference between
2 the damage you are claiming pursuant to the allegations
3 of -- of breach in 113 versus the allegations of breach in
4 116 and 117?

5 A. We have not bifurcated damages in that manner.

6 Q. Okay. That -- that is what I was getting to.
7 I wasn't trying to confuse you.

8 Does -- looking at paragraphs 120 through 124,
9 does IPH claim that Industrial -- excuse me, Leonardo and
10 Rossi have violated the covenant not to compete?

11 A. Yes, it states in here that --

12 Q. And specifically you are referring to what
13 paragraph?

14 A. Paragraph 23.

15 Q. 123?

16 A. I'm sorry, 123, states that, "As a result of
17 the conduct referenced in the preceding paragraphs,
18 regardless of whether it will ever lead to creation of a
19 viable commercial product that can be sold leased or
20 rented, is in direct conflict with the license agreement."

21 And then paragraph 124 --

22 Q. Okay.

23 A. -- references the covenant not to compete.

24 Q. Right. And that refers to paragraph -- I guess
25 you are referring to -- 123 refers back to paragraph 121

1 where it states that, "Leonardo and Rossi claim they have
2 sold at least three E-Cat units."

3 Do you see that?

4 A. Yes.

5 Q. Do you know whether or not that was true,
6 whether or not Leonardo and Rossi had, in fact, sold at
7 least three E-Cat units?

8 MR. LOMAX: Objection to the form of the
9 question.

10 THE WITNESS: The information we would have
11 about that would be the same information that
12 Industrial Heat, LLC has about that allegation.

13 BY MR. CHAIKEN:

14 Q. Okay. So IPH doesn't have information
15 independent of what Industrial Heat has?

16 A. Yes.

17 Q. And did you speak to anyone from Industrial
18 Heat about the allegations contained in paragraphs 120
19 through 124?

20 A. No.

21 Q. And does IPH have any information independent
22 of what Industrial Heat has?

23 A. Not to my knowledge.

24 Q. Do you know when in time Leonardo and Rossi
25 allegedly violated the covenant not to compete?

1 A. I don't have information about that other than
2 what Industrial Heat, LLC, has.

3 Q. And do you know what damages IPH incurred as a
4 result of this alleged breach?

5 A. We have not bifurcated them, the damages in
6 that manner.

7 Q. Okay. Going back to my -- I asked you
8 questions about 113 and the damages related to the
9 assignment of patents. I want to -- I forgot to ask you
10 questions. Do you know when in time Leonardo and Rossi
11 failed to assign licensed patents?

12 A. IPH International BV has the same information
13 that Industrial Heat, LLC has about that allegation.

14 Q. So, sitting here today, you don't know when in
15 time?

16 A. No.

17 Q. When in time -- I'm referring now to paragraphs
18 116 and 17 again -- when in time did Leonardo and Rossi
19 file patent applications without informing IPH?

20 A. That information is -- would be information
21 provided by Industrial Heat, LLC.

22 Q. So you don't know that, sitting here today,
23 when in time that happened?

24 A. I don't know any information other than what
25 Industrial Heat, LLC would know.

1 Q. Okay. Same thing with 117? You don't know
2 when, in time, Leonardo, without prior written consent,
3 abandoned several patent applications?

4 A. I don't know anything other than what
5 Industrial Heat, LLC knows about that allegation.

6 Q. Did anyone from IPH contribute to providing
7 information for purposes of this counterclaim?

8 A. I'm sorry. Repeat the question, please.

9 Q. Sure. Did anyone from IPH provide information
10 that was used to create this counterclaim that we are
11 looking at?

12 MR. LOMAX: Objection to the form of the
13 question.

14 THE WITNESS: The director for IPH
15 International BV, as we stated earlier, is IPH BV
16 Holdings, Limited. The director of that entity is
17 Tom Darden.

18 So I don't -- I don't know the extent of what
19 Tom Darden contributed to this on behalf of IPH
20 versus on behalf of Industrial Heat.

21 Does that help you?

22 BY MR. CHAIKEN:

23 Q. Kind of.

24 A. Good.

25 Q. Paragraph 131 --

1 MR. ARAN: I am going to --

2 BY MR. CHAIKEN:

3 Q. -- on Page 60 states, "Notwithstanding the
4 foregoing, on information and belief, Leonardo and Rossi
5 have not paid their federal taxes on payments made to them
6 from counter-plaintiffs and have not filed all tax returns
7 or reports relating to reports made to them from
8 counter-plaintiffs."

9 What proof or evidence does IPH have in support
10 of that allegation?

11 A. The same information that Industrial Heat, LLC
12 has to support the allegation.

13 Q. Did you speak to anyone from Industrial Heat
14 about that allegation?

15 A. No.

16 Q. Did you -- does IPH have any knowledge
17 independent from what Industrial Heat has?

18 A. Not to my knowledge.

19 Q. Would anyone from IPH other than you be better
20 able to answer that question?

21 A. I don't know that. I can't speak for anyone
22 else.

23 Q. Do you know how IPH -- do you know how IPH has
24 been damaged as a result of Leonardo and Rossi's failure
25 to pay taxes?

1 MR. LOMAX: Objection to the form of the
2 question.

3 THE WITNESS: I don't see payment of --
4 nonpayment of taxes referenced specifically in
5 paragraph 98.

6 BY MR. CHAIKEN:

7 Q. Okay. Do you have an understanding as to how
8 IPH was damaged as a result of Leonardo and Rossi's
9 failure to pay taxes?

10 A. My understanding of the provision in the
11 contract is to protect the parties from perhaps a claim
12 resulting from nonpayment of tax against perhaps a
13 property, the subject property of the license agreement.

14 Q. Did any such claim take place or happen?

15 A. Not to my knowledge.

16 Q. Okay. Do you have knowledge of any damage that
17 IPH incurred as a result of the allegation that Leonardo
18 and Rossi failed to pay taxes?

19 MR. LOMAX: Objection to the form of the
20 question.

21 THE WITNESS: I'm not aware of that.

22 BY MR. CHAIKEN:

23 Q. Going back to paragraph 135, Page 61. I take
24 it back. Paragraph 134 states, "Rossi and Leonardo, JMP
25 and Johnson, falsely represented to Industrial Heat that

1 Q. Paragraph 145 on Page 64 goes through specific
2 actions and we will have to walk through them one by one.
3 So paragraph A states that, "The defendants'
4 unconscionable, unfair and deceptive acts and practices
5 included a) deceiving counter-plaintiffs about JPM, the
6 operations of JPM, the supposed role of Bass and the
7 reasons for JPM wanting to use the steam power that could
8 be generated by the plant."

9 What facts or proof does IPH have in support of
10 145A?

11 A. The same facts or proof that Industrial Heat,
12 LLC has to support the claim.

13 Q. And did you speak to anyone from Industrial
14 Heat about what facts and proof Industrial Heat had?

15 A. No.

16 Q. Does IPH have any knowledge independent from
17 what Industrial Heat has?

18 A. Not to my knowledge.

19 Q. Does or would anyone from IPH have greater
20 information about that than you?

21 A. I don't know that. I can't speak for anyone
22 else.

23 Q. 145B states, "deceiving counter-plaintiffs as
24 for the reasons for wanting to move the plant from North
25 Carolina to Florida."

1 What proof or evidence does IPH have in support
2 of that allegation?

3 A. The same information that Industrial Heat, LLC
4 has to support the allegation.

5 Q. And did you speak to anyone from Industrial
6 Heat about that?

7 A. No.

8 Q. Does IPH have any knowledge independent from
9 what Industrial Heat has?

10 A. Not to my knowledge.

11 Q. Would anyone from IPH have greater information
12 on that than you?

13 A. I don't know that. I can't speak for anyone
14 else.

15 Q. Paragraph C, "Manipulating the operation of the
16 plant and the measurements of the plant's operations to
17 create the false impression and appearance that it was
18 producing a COP far in excess of the COP it was, in fact,
19 achieving."

20 What support or proof does IPH have in support
21 of that allegation?

22 A. Same information that Industrial Heat, LLC has
23 to support that allegation.

24 Q. Did you speak to anyone from Industrial Heat
25 about that?

1 A. No.

2 Q. Does IPH have any knowledge independent of what
3 Industrial Heat knows?

4 A. Not to my knowledge.

5 Q. Would anyone from IPH have greater information
6 than you?

7 A. I don't know that. I can't speak for anyone
8 else.

9 Q. Paragraph D states, "Providing false
10 information to counter-plaintiffs as the operation of the
11 plant and the measurements of the plant's operations."

12 What proof or evidence does IPH have in support
13 of that allegation?

14 A. The same information that Industrial Heat has
15 to support the allegation.

16 Q. Did you speak to anyone from Industrial Heat
17 about that allegation?

18 A. No.

19 Q. Does IPH have any knowledge independent of what
20 Industrial Heat knows?

21 A. Not to my knowledge.

22 Q. Would anyone else from IPH have information
23 greater than you on that subject?

24 A. I don't know that. I can't speak for anyone
25 else.

1 Q. Paragraph E, "Refusing to provide other
2 information properly requested by counter-plaintiffs and
3 to which counter-plaintiffs were entitled, pursuant to the
4 license agreements, the term sheet, the USQL agreements
5 and/or the nature of the purportedly but, in fact, not
6 independent work being done by Penon."

7 What fact or evidence do you have in support of
8 that allegation?

9 A. The same facts or evidence that Industrial
10 Heat, LLC has to support that allegation.

11 Q. Did you speak to anyone from Industrial Heat
12 about that allegation?

13 A. No.

14 Q. Does IPH have any knowledge independent of what
15 IPH knows about that?

16 A. Not to my knowledge.

17 Q. Does anyone from IPH have more information
18 about that than you?

19 A. I can't speak for anyone else. I don't know
20 that.

21 Q. Paragraph F states, "Preventing or blocking
22 counter-plaintiffs from obtaining truthful information
23 about the plant's operations, the measurements of those
24 operations, the role of JMP, use by JMP of steam provided
25 by the plant, the role of Penon or the basis for expenses

1 or costs charged to counter-plaintiff."

2 What proof or evidence does IPH have in support
3 of that allegation?

4 A. The same information that Industrial Heat, LLC
5 has to support the allegation.

6 Q. Did you speak to anyone from Industrial Heat
7 about that allegation?

8 A. No.

9 Q. Does IPH have any knowledge independent of what
10 Industrial Heat knows?

11 A. Not to my knowledge.

12 Q. And does anyone else from IPH have greater
13 information about that than you?

14 A. I don't know that. I can't speak for anyone
15 else.

16 Q. Okay. Paragraph G on the following page
17 states, "Charging counter-plaintiffs for services,
18 expenses and equipment that were purportedly being used
19 either for the benefit of and for the goals of
20 counter-plaintiffs when, in fact, no such services
21 expenses or equipment were being used for
22 counter-plaintiff's benefit."

23 What facts or information do you have in
24 support of that allegation?

25 A. The same information that Industrial Heat, LLC

1 has to support the allegation.

2 Q. Did you speak to anyone from Industrial Heat
3 about that allegation?

4 A. No.

5 Q. Does IPH have any knowledge independent from
6 what Industrial Heat knows about that allegation?

7 A. Not to my knowledge.

8 Q. And would anyone else from IPH be able to
9 better answer questions about that allegation?

10 A. I don't know that. I can't speak for anyone
11 else.

12 Q. Is there a dollar amount that IPH is seeking as
13 a result of the alleged violations of the Florida
14 Deceptive and Unfair Trade Practices Act?

15 MR. LOMAX: Objection to the form of the
16 question.

17 THE WITNESS: The same damages that we have
18 been reviewing in paragraph 98.

19 BY MR. CHAIKEN:

20 Q. Okay. The damages aren't separated out?

21 A. We have not bifurcated damages in that matter.

22 Q. Looking at -- let's go back to paragraph 98.
23 And, again, you have got three subparts to paragraph 98.
24 Where would the damages related to violations of the
25 Florida Deceptive and Unfair Trade Practices Act fall in

1 respect to the three buckets in paragraph 98?

2 MR. LOMAX: Objection to the form of the
3 question to the extent that paragraph 98 begins "as a
4 result of Leonardo and Rossi's breach." This
5 question is about Florida Deceptive and Unfair Trade
6 Practices Act.

7 MR. CHAIKEN: Right.

8 BY MR. CHAIKEN:

9 Q. So if not -- well, based on your counsel's
10 objection, is there some other place in this document
11 where I can find the damages claimed by IPH with respect
12 to the Count 4 which is the Florida Deceptive and Unfair
13 Trade Practices Act claim?

14 A. Paragraph 148 describes -- it states that,
15 "Counter-plaintiffs have suffered and continue to suffer
16 actual damages as described above."

17 Q. Right. And is there a dollar amount associated
18 with what those damages are?

19 A. I don't see a dollar amount in here.

20 Q. Okay. Is IPH aware of or is making a claim for
21 damages, dollar damages, money damages, as it relates to
22 this count?

23 A. It doesn't state that we are, no.

24 Q. Is it your understanding that you are?

25 MR. LOMAX: Objection to the form of the

1 question.

2 THE WITNESS: My understanding is what is
3 stated here in the document. I don't have a
4 different understanding. I'm not sure what you are
5 asking me.

6 BY MR. CHAIKEN:

7 Q. Okay. Well, my -- my question is, if, in fact,
8 IPH is seeking money damages as it relates to the
9 allegations contained in Count 4, what are those money
10 damages?

11 MR. LOMAX: Objection to the form of the
12 question.

13 THE WITNESS: You asked me money damages?

14 BY MR. CHAIKEN:

15 Q. Yes.

16 A. I don't see money damages other than the
17 reference to the \$89 million payment --

18 Q. Okay. So --

19 A. -- in 143.

20 Q. Okay. So is it your understanding based on
21 that, that there are -- that IPH is not seeking money
22 damages from Leonardo and Rossi as it relates to Count 4?

23 MR. LOMAX: Objection to the form of the
24 question.

25 THE WITNESS: I don't see money damages being

1 stated here.

2 BY MR. CHAIKEN:

3 Q. So would you agree with me that IPH is not
4 seeking money damages?

5 A. I agree with what is in the document. That is
6 it.

7 Q. Well, let's put the document aside. I am
8 asking you, as the representative of IPH, is it your
9 understanding that IPH is seeking money damages from
10 Leonardo and Rossi as a result of a violation of the
11 Florida Deceptive and Unfair Trade Practices Act?

12 MR. LOMAX: Objection to the form of the
13 question.

14 THE WITNESS: Maybe I don't understand how you
15 are asking or what you are asking or what your point
16 is. But I don't understand anything different on
17 behalf of IPH International BV that is not stated
18 here in the document.

19 BY MR. CHAIKEN:

20 Q. Okay. Based on your reading of the document,
21 what is the dollar damages, if any, that IPH is seeking?

22 A. I think I said earlier, I don't see a dollar
23 amount in the document.

24 Q. Okay.

25 A. If I didn't say that, I'm sorry.

1 else.

2 Q. Do you know specifically what information was
3 provided by Industrial Heat regarding this allegation?

4 MR. LOMAX: Objection to the form of the
5 question.

6 THE WITNESS: I don't have any information
7 other than what Industrial Heat's provided.

8 BY MR. CHAIKEN:

9 Q. Do you know if Industrial Heat's provided
10 information regarding this allegation?

11 MR. LOMAX: Objection to the form of the
12 question.

13 THE WITNESS: I didn't speak to Industrial Heat
14 about the allegations.

15 BY MR. CHAIKEN:

16 Q. Okay. Paragraph 58, does IPH have any facts or
17 evidence with respect to the allegations contained in
18 paragraph 58?

19 A. I don't have any information other than the
20 information provided by Industrial Heat, LLC.

21 Q. Did you speak to anyone from Industrial Heat
22 regarding this allegation?

23 A. No.

24 Q. Look at your answer on Page 10 of the
25 Exhibit 3. The answer to paragraph 58 states that,

1 "Defendants further admit that Industrial Heat paid the
2 second payment of \$10 million under the license agreement
3 and first amendment."

4 Is it your understanding that Industrial Heat
5 made this payment or did IPH make this payment?

6 A. It is my understanding that Industrial Heat
7 contributed \$10 million in capital to IPH BV -- I'm sorry,
8 yeah, IPH International BV and, in turn, the \$10 million
9 was recorded by IPH International BV as a payment for the
10 license agreement.

11 Q. Okay. And so is this response incorrect or
12 inaccurate when it states that, "Defendants further admit
13 that Industrial Heat paid the second payment of
14 \$10 million under the license agreement in the first
15 amendment"?

16 A. Literal payment of the payment was from a bank
17 account titled, "Industrial Heat, LLC."

18 Q. Okay. So you think that is accurate?

19 A. If Industrial Heat -- it says, "Industrial Heat
20 paid the second payment of \$10 million" and I said the
21 payment was made by wire transfer from a bank account
22 titled, "Industrial Heat, LLC."

23 Q. Okay. Paragraph 63 on Page 12 of the
24 complaint. Are you aware of any facts or evidence with
25 respect to the allegation contained in paragraph 63?

1 A. No.

2 Q. Does IPH have any knowledge independent of what
3 Industrial Heat knows with respect to paragraph 73?

4 A. Not to my knowledge.

5 Q. Is there anyone at IPH who has more knowledge
6 than you regarding paragraph 73?

7 A. I can't speak for anyone else.

8 Q. Paragraph 79 on Page 15. Does IPH have any
9 proof or evidence with respect to the allegations
10 contained in paragraph 79?

11 A. No information other than what Industrial Heat,
12 LLC, has.

13 Q. And did you speak to Industrial Heat about the
14 allegations set forth in paragraph 79?

15 A. No.

16 Q. Does IPH have any knowledge regarding that
17 allegation independent of what Industrial Heat knows?

18 A. Not to my knowledge.

19 Q. Is there anyone at IPH who has more knowledge
20 with you with respect to paragraph 79?

21 A. I can't speak for anyone else at IPH
22 International BV.

23 Q. Would you agree that IPH has refused to make an
24 \$89 million payment to Leonardo?

25 A. Yes.

1 THE VIDEOGRAPHER: We are off the record. The
2 time is 10:48 a.m.

3 (Thereupon, a recess was taken.)

4 THE VIDEOGRAPHER: We are back on the record.
5 The time is 10:59 a.m.

6 BY MR. CHAIKEN:

7 Q. Mr. Fogleman, I am still going to refer you to
8 Exhibit Number 3, which is the fourth amended answer
9 additional defenses counterclaims and third party claims.
10 Do you still have that in front of you?

11 A. Yes.

12 Q. Okay. I am going to refer you to the
13 affirmative and other additional defenses, which starts on
14 Page 21. Does IPH have any evidence or facts in support
15 of its first -- the first defense set forth on Page 21?

16 A. No information other than what Industrial Heat,
17 LLC has.

18 Q. Okay. Did you speak to anyone from Industrial
19 Heat regarding affirmative defense number one?

20 A. No.

21 Q. Okay. Does IPH have any knowledge or evidence
22 independent of what Industrial Heat has?

23 A. Not to my knowledge.

24 Q. Would there be anyone from IPH that would have
25 more knowledge regarding this first defense than you?

1 A. I can't speak to that.

2 Q. Okay.

3 A. Can I ask you a question.

4 Q. Sure.

5 A. When you ask me the first question and I tell
6 you that all I have is what Industrial Heat has and then
7 the third question you ask me if IPH has any knowledge
8 other than what Industrial Heat has, is there a point to
9 that that I am missing? I am afraid that I might be
10 missing something.

11 Q. I don't think there is a point that you are
12 missing. I am just trying to make sure that there is
13 nothing that I am missing.

14 A. Okay.

15 Q. The second defense on Page 22?

16 A. Okay.

17 Q. Does IPH have any knowledge or facts or proof
18 in support of the second defense?

19 A. Not any information other than what Industrial
20 Heat, LLC has.

21 Q. And did you speak to anyone from Industrial
22 Heat regarding the second defense?

23 A. No.

24 Q. And does IPH have any knowledge independent or
25 separate from what Industrial Heat knows?

1 A. Not to my knowledge.

2 Q. Would anyone from IPH have greater information
3 regarding the second defense than you?

4 A. I can't speak to that. I don't -- I can't
5 speak for someone else.

6 Q. Looking at the third defense on Page 22, does
7 IPH have any evidence or knowledge in support of the
8 allegations set forth in this third defense?

9 A. No information other than the information that
10 Industrial Heat, LLC has.

11 Q. And did you speak to anyone at Industrial Heat
12 regarding this third defense?

13 A. No.

14 Q. And does IPH have any information separate and
15 apart from what Industrial Heat has?

16 A. Not to my knowledge.

17 Q. And is there anyone from IPH who would have
18 greater information with respect to this third defense
19 than you?

20 A. I can't speak for anyone else. I don't know
21 that.

22 Q. I may have asked this before, but who makes
23 decisions on behalf of IPH?

24 A. Tom Darden.

25 Q. Okay. Anybody else?

1 that?

2 A. Yes. You presented this earlier?

3 Q. Right. Now, that assignment provides in
4 paragraph 2 that there will be a purchase price of
5 \$460,000 paid by IPH to Industrial Heat. Is that your
6 understanding?

7 A. Yes.

8 Q. And paragraph 4 states that that payment will
9 be made on or before April 29, 2016. Do you see that?

10 A. Yes.

11 Q. Was that payment made?

12 A. An actual bank transaction payment was not
13 made. It was recorded through an intracompany account.

14 Q. Okay. Can you explain to me how that works.

15 A. How it works.

16 Q. Is this a book entry?

17 A. Yes.

18 Q. I see. So there wasn't really an exchange of
19 funds?

20 A. My recollection is there was not a cash
21 transaction at the time.

22 Q. Okay. Did -- does IPH maintain a separate bank
23 account from Industrial Heat?

24 A. Yes.

25 Q. And for how long has it done that? Since its

1 test?

2 A. No.

3 Q. Is it IPH's position that the protocol prepared
4 by Fabio Penon for the guaranteed performance test was
5 flawed?

6 MR. LOMAX: Objection to the form of the
7 question.

8 THE WITNESS: To the -- to the extent
9 Industrial Heat, LLC has that information, we would
10 not have information any different.

11 BY MR. CHAIKEN:

12 Q. Did you speak to Industrial Heat about any
13 flaws in the protocol prepared by Fabio Penon?

14 A. No.

15 Q. Is it IPH's position that Dr. Rossi manipulated
16 the data that was taken pursuant to the test that was
17 performed in Florida in 2015?

18 MR. LOMAX: Objection to the form of the
19 question.

20 THE WITNESS: IPH International BV has no
21 information different than Industrial Heat has
22 regarding what you refer to as manipulation of data.

23 BY MR. CHAIKEN:

24 Q. Okay.

25 A. So we would have the same information and have

1 the same view.

2 Q. Okay. So your position is identical to that of
3 Industrial Heat?

4 A. Yes. If I understand your question, yes.

5 Q. And do you know what their position is?

6 MR. LOMAX: Objection to the form of the
7 question.

8 THE WITNESS: I have not discussed the matter
9 with Industrial Heat.

10 BY MR. CHAIKEN:

11 Q. So, sitting here today, you don't know
12 whether -- one way or the other whether they believe that
13 the data was manipulated?

14 A. It has been stipulated, so, yes, I believe -- I
15 believe I know their position.

16 Q. Okay. Do you have any facts to support that?

17 A. No facts other than the facts that Industrial
18 Heat, LLC, has.

19 Q. Do you know or does IPH have a position as to
20 whether or not it agreed to what equipment was going to be
21 tested for purposes of the guaranteed performance test?

22 A. I don't have information about that particular
23 matter any different than Industrial Heat would have.

24 Q. And did you talk to anyone from Industrial Heat
25 about that?

1 plant"?

2 A. Yes.

3 Q. Are you familiar with the fact that the one
4 megawatt plant was shipped from North Carolina to Florida?

5 A. I am aware of that, yes.

6 Q. Okay. Did IPH care or have an opinion as to
7 where it wanted the guaranteed performance test pursuant
8 to the license agreement to take place?

9 A. Care?

10 Q. Yeah. Did it have an opinion as to, hey, we
11 really want the test to take place in North Carolina or
12 South Carolina or anywhere else?

13 A. That -- that decision rested with Industrial
14 Heat, LLC. And so IPH International BV would have relied
15 on Industrial Heat, LLC for that.

16 Q. Okay. Did it make a difference to IPH whether
17 or not there was a third party customer involved with the
18 guaranteed performance test?

19 A. I don't recall that being a stipulation in the
20 license agreement.

21 Q. Right.

22 A. So that decision would, again, rest with
23 Industrial Heat, LLC.

24 Q. So it didn't matter to IPH? Whatever
25 Industrial Heat preferred?

1 A. To my knowledge, IPH International BV did not
2 have input on that decision since it rested with
3 Industrial Heat, LLC.

4 Q. Okay. Would you agree with me that -- well,
5 strike that.

6 At any time prior to the initiation of this
7 lawsuit, which was approximately April of 2016, did IPH
8 ever tell Dr. Rossi or Leonardo that they believed that
9 Rossi and Leonardo were in breach of the license
10 agreement?

11 A. I am not aware of that communication, as you
12 have described it.

13 Q. Okay. Did you talk to Industrial Heat about
14 that?

15 A. I did not.

16 Q. If Leonardo had fulfilled its terms or
17 fulfilled its obligations under the license agreement, who
18 would have been responsible for paying the \$89 million?
19 Would it have been IPH or would it having Industrial Heat?

20 A. It is my understanding the obligation was in
21 the license agreement.

22 Q. Mm-hmm.

23 A. But I also believe the assignment agreement
24 maybe referred to the obligations. And whatever -- the
25 assignment agreement should speak for itself.

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA**

ANDREA ROSSI and LEONARDO
CORPORATION,

Plaintiffs,

v.

THOMAS DARDEN; JOHN T. VAUGHN,
INDUSTRIAL HEAT, LLC; IPH
INTERNATIONAL B.V.; and
CHEROKEE INVESTMENT PARTNERS,
LLC,

Defendants.

CASE NO. 1:16-cv-21199-CMA

INDUSTRIAL HEAT, LLC and IPH
INTERNATIONAL B.V.,

Counter-Plaintiffs,

v.

ANDREA ROSSI and LEONARDO
CORPORATION,

Counter-Defendants,

and

J.M. PRODUCTS, INC.; HENRY
JOHNSON; FABIO PENON; UNITED
STATES QUANTUM LEAP, LLC;
FULVIO FABIANI; and JAMES BASS,

Third-Party Defendants.

**DEFENDANT INDUSTRIAL HEAT, LLC'S RESPONSES AND OBJECTIONS TO
PLAINTIFF ANDREA ROSSI'S SECOND SET OF INTERROGATORIES**

Defendant Industrial Heat, LLC ("Industrial Heat"), pursuant to Federal Rules of Civil Procedure ("Federal Rules") 26 and 33, hereby responds to Plaintiff Andrea Rossi's ("Rossi") Second Set of Interrogatories ("Interrogatories").

PRELIMINARY STATEMENT

Industrial Heat provides these responses and objections ("Responses") without waiving any objections as to the admissibility in evidence of these Responses, the information produced pursuant to, or referenced in, these Responses, or the subject matter of the Interrogatories or of the information produced pursuant to, or referenced in, these Responses. The Responses are also subject to and without waiver of Industrial Heat's rights: (i) to object to other discovery directed to the subject matter of the Interrogatories or Responses; (ii) to make additional objections or to seek protective orders; and (iii) to revise, correct, add to, or clarify the Responses or information referred to below in accordance with all applicable rules. Industrial Heat reserves the right to supplement these Responses after it has had a full and fair opportunity to participate in discovery.

Industrial Heat has not completed investigation of the facts related to this case. Therefore, Industrial Heat responds to these Interrogatories based upon information and documents acquired and reviewed to date, which may or may not be inclusive of all documents relevant to the matters in dispute in this case. Accordingly, the present Responses are offered without prejudice to supplementation or modification at a later date.

INTERROGATORY RESPONSES AND OBJECTIONS

INTERROGATORY NO. 1: With respect to your claim in paragraph 105 of your counterclaims that “Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a test of the Plant,” please indicate to whom Leonardo and Rossi disclosed this information and the specific date(s) and means/method of each disclosure.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by the attorney-client privilege, the work product doctrine, or any other applicable privilege, protection or restriction upon discovery (“Applicable Privilege or Protection”). Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

4. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

5. Industrial Heat objects to this interrogatory on the grounds that it is unduly burdensome. Most, if not all, of Leonardo and Rossi's disclosures occurred through postings on the internet, including on Rossi's blog, Journal of Nuclear Physics ("JONP"). JONP receives a sizable number of site visits per day from individuals in the United States and abroad. It is impossible for Industrial Heat to identify every individual viewing the JONP website, and therefore, impossible to identify each and every person to whom disclosures were made. Additionally, to the extent that Rossi makes disclosures on the internet through the use of online aliases, Industrial Heat is not able to identify all of the disclosures made by Rossi and/or Leonardo over the years.

Subject to and without waiving the foregoing objections, Industrial Heat states that Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a test of the Plant, including but not limited to, on the following occasions:

- i. April 5, 2016 through the public filing of the License Agreement as an exhibit to the Complaint.
- ii. September 20, 2013 through a posting on JONP.
- iii. November 2, 2014 through a posting on JONP.
- iv. November 26, 2014 through a posting on JONP.
- v. January 7, 2015 through a posting on JONP.
- vi. February 12, 2015 through a posting on JONP.
- vii. May 15, 2015 through a posting on JONP.
- viii. May 22, 2015 through a posting on JONP.
- ix. July 2, 2015 through a posting on JONP.
- x. September 24, 2015 through a posting on JONP.

- xi. April 18, 2016 through a posting on JONP.
- xii. July 3, 2016 through a posting on JONP.
- xiii. August 29, 2016 through a posting on JONP.

Industrial Heat will also produce a copy of the JONP that Plaintiffs can search as readily as Industrial Heat for additional examples.

INTERROGATORY NO. 2: With respect to your claim in paragraph 105 of your counterclaims that “Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a test to be conducted over 400 days,” please indicate to whom Leonardo and Rossi disclosed this information and the specific date(s) and means/method of each disclosure.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by an Applicable Privilege or Protection. Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

4. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the

above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

5. Industrial Heat objects to this interrogatory on the grounds that it is unduly burdensome. Most, if not all, of Leonardo and Rossi's disclosures occurred through postings on the internet, including on Rossi's blog, Journal of Nuclear Physics ("JONP"). JONP receives a sizable number of site visits per day from individuals in the United States and abroad. It is impossible for Industrial Heat to identify every individual viewing the JONP website, and therefore, impossible to identify each and every person to whom disclosures were made. Additionally, to the extent that Rossi makes disclosures on the internet through the use of online aliases, Industrial Heat is not able to identify all of the disclosures made by Rossi and/or Leonardo over the years.

Subject to and without waiving the foregoing objections, Industrial Heat states that Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a test to be conducted over 400 days, including but not limited to, on the following occasions:

- i. April 5, 2016 through the public filing of the License Agreement as an exhibit to the Complaint
- ii. February 5, 2015 through a posting on JONP.
- iii. May 2, 2015 through a posting on JONP.
- iv. December 21, 2015 through a posting on JONP.
- v. January 16, 2016 through a posting on JONP.
- vi. April 10, 2016 through a posting on JONP.

Industrial Heat will also produce a copy of the JONP that Plaintiffs can search as readily as Industrial Heat for additional examples.

INTERROGATORY NO. 3: With respect to your claim in paragraph 105 of your counterclaims that “Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a test involving 350 days of operation of the E-Cat Plant,” please indicate to whom Leonardo and Rossi disclosed this information and the specific date(s) and means/method of each disclosure.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by an Applicable Privilege or Protection. Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

4. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

5. Industrial Heat objects to this interrogatory on the grounds that it is unduly burdensome. Most, if not all, of Leonardo and Rossi’s disclosures occurred through postings on

the internet, including on Rossi's blog, Journal of Nuclear Physics ("JONP"). JONP receives a sizable number of site visits per day from individuals in the United States and abroad. It is impossible for Industrial Heat to identify every individual viewing the JONP website, and therefore, impossible to identify each and every person to whom disclosures were made. Additionally, to the extent that Rossi makes disclosures on the internet through the use of online aliases, Industrial Heat is not able to identify all of the disclosures made by Rossi and/or Leonardo over the years.

Subject to and without waiving the foregoing objections, Industrial Heat states that Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a test involving 350 days of operation of the E-Cat Plant, including but not limited to, on the following occasions:

- i. April 5, 2016 through the public filing of the License Agreement as an exhibit to the Complaint
- ii. April 26, 2015 through a posting on JONP.
- iii. May 2, 2015 through a posting on JONP.
- iv. August 4, 2015 through a posting on JONP.
- v. August 7, 2015 through a posting on JONP.
- vi. December 21, 2015 through a posting on JONP.
- vii. January 17, 2016 through a posting on JONP.
- viii. February 18, 2016 through a posting on JONP.
- ix. April 10, 2016 through a posting on JONP.

Industrial Heat will also produce a copy of the JONP that Plaintiffs can search as readily as Industrial Heat for additional examples.

INTERROGATORY NO. 4: With respect to your claim in paragraph 105 of your counterclaims that “Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a guaranteed performance, or ‘guarantees of performance’ test,” please indicate to whom Leonardo and Rossi disclosed this information and the specific date(s) and means/methods of each disclosure.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by an Applicable Privilege or Protection. Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

4. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

5. Industrial Heat objects to this interrogatory on the grounds that it is unduly burdensome. Most, if not all, of Leonardo and Rossi’s disclosures occurred through postings on

the internet, including on Rossi's blog, Journal of Nuclear Physics ("JONP"). JONP receives a sizable number of site visits per day from individuals in the United States and abroad. It is impossible for Industrial Heat to identify every individual viewing the JONP website, and therefore, impossible to identify each and every person to whom disclosures were made. Additionally, to the extent that Rossi makes disclosures on the internet through the use of online aliases, Industrial Heat is not able to identify all of the disclosures made by Rossi and/or Leonardo over the years.

Subject to and without waiving the foregoing objections, Industrial Heat states that Leonardo and Rossi disclosed that their agreement with Counter-Plaintiffs required a guaranteed performance, or "guarantees of performance" test, including but not limited to, on the following occasions:

- i. April 5, 2016 through the public filing of the License Agreement as an exhibit to the Complaint
- ii. August 2, 2014 through a posting on JONP.
- iii. November 2, 2014 through a posting on JONP.

Industrial Heat will also produce a copy of the JONP that Plaintiffs can search as readily as Industrial Heat for additional examples.

INTERROGATORY NO. 5: With respect to your claim in paragraph 110 of your counterclaims that "any value associated with the exclusive control over the disclosure of the E-Cat IP was diminished with any disclosure of the E-Cat IP by Leonardo and Rossi without IPH's written waiver," please state the specific decreased value which you claim as damages with respect to this allegation.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by an Applicable Privilege or Protection.

Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement.

4. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

5. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

Subject to and without waiving the foregoing objections, Industrial Heat states that paragraph 110 is part of a counterclaim claim being asserted by IPH International B.V., not part of a counterclaim being asserted by Industrial Heat, and therefore Industrial Heat is not claiming a specific damages amount with respect to the counterclaim that encompasses paragraph 110.

INTERROGATORY NO. 6: Please identify the specific E-Cat IP, if any, that you claim Rossi and/or Leonardo did not deliver to you as alleged in paragraphs 97-98 of your counterclaims.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by an Applicable Privilege or Protection. Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement.

4. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

5. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

Subject to and without waiving the foregoing objections, Industrial Heat states that, pursuant to sections 12 and 13 of the License Agreement, Andrea Rossi and Leonardo Corporation were required to deliver the E-Cat IP to Industrial Heat so that Industrial Heat could replicate the results Rossi and Leonardo claimed from the E-Cat technology. Industrial Heat was not able to replicate the results Rossi and Leonardo claimed from the E-Cat technology using the E-Cat IP delivered to it. Therefore, the specific E-Cat IP Industrial Heat claims Leonardo and Rossi did not deliver, is the E-Cat IP necessary to replicate the results Rossi and Leonardo claimed from the E-Cat technology, assuming the E-Cat technology in facts works as Rossi and Leonardo claim.

INTERROGATORY NO. 7: Please identify the nature of any E-Cat IP that you claim Rossi and/or Leonardo did not deliver to you as alleged in paragraphs 97-98 of your counterclaims.

ANSWER: Industrial Heat objects to this interrogatory on the following grounds:

1. Industrial Heat objects to the Definitions, Instructions and Interrogatories to the extent they seek the disclosure information protected by an Applicable Privilege or Protection. Inadvertent disclosure of any privileged or protected information or documents in response to this interrogatory shall not be deemed a waiver of the Applicable Privilege or Protection.

2. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

3. Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement.

4. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is

unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request.

5. Industrial Heat objects to the definition of “you”, “yours” and “yourselves” to the extent it includes persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

6. Industrial Heat objects to this interrogatory on the grounds that it is duplicative of interrogatory no. 6. Industrial Heat further objects to this interrogatory on the grounds that the phrase “nature of any E-Cat IP” is vague and ambiguous.

Subject to and without waiving the foregoing objections, see Industrial Heat’s response to interrogatory no. 6.

Dated: February 27, 2017.

Respectfully submitted,

/s/ Christopher R.J. Pace

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Attorneys for Defendants

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by e-mail on counsel of record on the service list below this 27th day of February, 2017.

/s/ Erika S. Handelson

Erika S. Handelson

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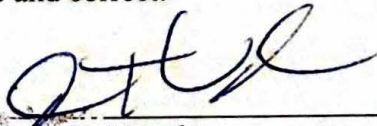
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VERIFICATION

I, John T. Vaughn, am currently Vice President of Industrial Heat, LLC ("Industrial Heat"). I am authorized by Industrial Heat to verify on its behalf the Responses and Objections to Rossi's Second Set of Interrogatories ("Responses"). I have read the Responses and know the contents thereof. I state that the facts contained in the Responses are true and correct to the best of my knowledge, information and belief, subject to the objections set forth in the Responses. I declare under penalty of perjury that the foregoing is true and correct.

EXECUTED ON 2/27, 2017

BY:



John T. Vaughn

From: dewey.weaver <dewey.weaver@deeprv.com>
Sent: Monday, December 02, 2013 5:59 PM
To: JT Vaughn
Subject: Re: Fwd: Interesting data

JT - did your steam output during the Wed afternoon experiment appear to be more voluminous / energetic?

---- On Mon, 02 Dec 2013 16:47:04 -0600 **JT Vaughn**<jvaughn@industrialheat.co> wrote ----

Please keep strictly confidential. I wanted to share this with you guys b/c it may contradict my statement earlier today about not having seen excess heat in tests with the 'Pig' device (Lynne: the Pig is an insulated device which contains an E-Cat HT reactor inserted in a sealed water tank with a steam pipe).

Further data analysis and replication required, but I wanted to share this with you guys on a preliminary basis.

JT

----- Forwarded message -----

From: **JT Vaughn** <jvaughn@industrialheat.co>
Date: Mon, Dec 2, 2013 at 1:59 PM
Subject: Interesting data
To: Tom Darden <tdarden@industrialheat.co>
Cc: T Barker Dameron <tdameron@industrialheat.co>

Tom: see the attached spreadsheet. There are three tabs of data from the three tests I ran last week with the Pig. The third tab titled, '11.27.13 PM test' is the pertinent set of data. If you review that data, you will see a reported COP of 1.302.

That was the short test I ran on Wednesday, prior to leaving around 4PM to go to Norwood. I didn't really believe the data, so I didn't want to send it to you until I had TBD review my calculations. He has briefly reviewed my calculations (but he has not examined the raw data) and thinks the calculations are correct.

I feel pretty confident in the water measurement, and even if I am off by a quarter of a liter (which I am positive is not the case), the COP is still above 1.0 (1.042 to be exact), which is more than the ~ 0.94 - 0.97 range I have been seeing.

I have attached thermocouple and input power data from this test for TBD. Core 11-2.

After today's test, which is different (testing it without adding water to refill it while operating), I plan to try to replicate the same results by conducting the exact same test (duration and input power).

JT

--
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--

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Page 1

1 UNITED STATES DISTRICT COURT
2 SOUTHERN DISTRICT OF FLORIDA
3 CASE NO. 1:16-cv-21199-CMA/O'Sullivan
4
5

6 ANDREA ROSSI and LEONARDO)

CORPORATION,)

)

7 Plaintiffs,)

)

)

9 v.)

)

10 THOMAS DARDEN; JOHN T.)

VAUGHN; INDUSTRIAL HEAT,)

11 LLC; IPH INTERNATIONAL,)

B.V. and CHEROKEE)

12 INVESTMENT PARTNERS, LLC,)

)

13 Defendants.)

14
15
16 C O N F I D E N T I A L

17
18 Video Deposition of THOMAS BARKER DAMERON, III
19 (Taken by the Plaintiffs)
20 Raleigh, North Carolina
21 Thursday, December 1, 2016
22
23
24

25 Reported by: Marisa Munoz-Vourakis -
RMR, CRR and Notary Public

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1 MR. PACE: Objection to form.

2 A. Before the final payment of something, I'm
3 not sure what that final word was.

4 Q. Was it your understanding that a testing
5 had to be carried out successfully in order for
6 Dr. Rossi to be paid the final sum of money?

7 MR. PACE: Objection to form.

8 A. Yes.

9 Q. And that sum was \$89 million, correct?

10 A. Could have been that much, I think. As I
11 recall, that was the maximum amount.

12 Q. Sir, I am showing you a document, which
13 we've marked as Plaintiff's Exhibit 11, which has Bates
14 number IH00091609.

15 (The document referred to was marked
16 Plaintiff's Exhibit Number 11 for
17 identification.)

18 (Pause.)

19 Q. The first email, sir, is from J.T. Vaughn
20 to yourself from June 16, 2014. Do you see that?

21 A. Yes.

22 Q. Did you receive this email, sir?

23 A. Yes.

24 Q. And it attaches a copy of the contract and
25 refers to Section 5 requirements for the one megawatt

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1 to pass a 350-day test. Do you see that?

2 A. Yes.

3 Q. Do you understand that to be the guaranteed
4 performance test?

5 A. Yes.

6 Q. So it's your understanding, as of June 16,
7 2014, that guaranteed performance test had not yet been
8 undertaken?

9 A. Yeah, yes.

10 Q. And in fact, you later learned that the
11 guaranteed performance test would be undertaken at the
12 Doral facility in Miami, is that correct?

13 MR. PACE: Objection. I'm sorry,
14 objection to the form of the question.

15 MR. ANNESSER: What's your objection?

16 MR. PACE: You keep phrasing it in
17 terms of something that it's what he's
18 testified to in terms of your
19 characterization of the test. That's why I
20 say that.

21 MR. ANNESSER: Can you repeat the
22 question? I want to make sure if Mr. Pace
23 is correct, I will correct myself.

24 (Record read.)

25

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Monday, September 23, 2013 9:56 AM
To: Tom Darden
Subject: Re: Industrial Heat update 9/24/13

I made some edits, which are in red below--as usual, take or leave any or all. Also, I think might want to add two sections, both of which should be brief at this point but which I think we should include: 1) Commercialization Strategy and 2) Regulatory Compliance. See comments on this in red, below the update. Just thoughts for consideration. If you want to focus exclusively on technology validation, I think that generally works too.

Summary

For the last month, our most important activities have involved producing and testing reactors. Of secondary importance, we have met with potential funders or partners; we have advanced our intellectual property activities and we have finished getting our R&D facility in operation. We believe we have good results, but there is a critical caveat. We are not fully confident in our method for measuring output energy, which is to use a thermal infrared optical camera. These systems need to be calibrated, and they depend on critical adjustment factors such as emissivity of the heated surface, which is not easy to know. Our camera is very expensive and presumably accurate, but we will not be comfortable until we operate with a second one in parallel. We took delivery of a rented camera yesterday but have not used it yet. Until we do, I view the information below as being very tentative and premature.

Production and Testing

Invesco Perpetual, a large U.K. fund, is an investor in a medical products company that I seeded many years ago, and I respect them greatly. They have a small allocation for non-traded securities. When Invesco's chief investment officer heard about our activities, he expressed strong interest because he has been following LENR developments. Unfortunately, Invesco might not be able to invest in IH because of their small allocation to private deals, and because they are currently undergoing a review of their policies associated with non-traded securities. Notwithstanding this, they wanted to come see what we are doing, and they proposed September 12, 2013. We set a goal of having a reactor operating by then.

We needed a shipping container from Italy for the Invesco test, because it contained several reactors and the controls to operate them. It was delayed from the estimated 8/22 arrival date, so we reproduced the reactors and controls in our shop.

In short order we identified suppliers and ordered the necessary components and materials to construct three fully operational reactors. We worked with two machine shops to fabric stainless steel components for the reactors. After receiving the components from various suppliers, we proceeded to build the control equipment, heating elements and reactors, which we fueled. It was useful to build the devices ourselves, in order to fully understand how to construct the devices and how they operate. Obviously we are not set up to do this efficiently, so we made only a half-dozen devices, and our total elapsed time was a few days. But we are beginning to think about how this could be done at scale.

We operated the first three reactors on Tuesday, 9/10, and our data (subject to the measurement caveat above) showed that they produced significant excess energy. We stopped them after a half day and waited until Thursday, 9/12 to start them again. They appeared to operate similarly and we believe they produced significant excess energy, though we do not want to report specific multiples until we have reviewed the data thoroughly and conducted tests using at least two thermal cameras to ensure the data is accurate. After operating for several hours, Dr. Rossi decided to elevate their input energy until something failed, as a test. The second device shorted out electrically as the temperature increased, shutting itself down. We dissected it and determined that it arced internally due to a void in the ceramic insulation. We can solve this by vibrating the refractory after pouring so it fills all the voids, and by winding the electric coils with machinery instead of by hand. [Consider reminding the reader that we have no intention of doing this by hand in the future...I'm worried they're going to be floored by the concept of 'hand made nuclear reactors'! Obviously this is a big positive of the technology, but we need to ease them into this concept or spell out why the simplicity of the technology is such a big deal and advantage.]

We replaced reactor 2 with one of the remaining three that we built and started operating again on Tuesday, 9/17. We operated for three days, again showing good results based on our (caveated) measurements. The calculated COP ratio was between 5 and 9. [I would wait at least another week to provide hard numbers like this].

We will start up the three reactors on Monday or Tuesday for a long term test, importantly to be monitored by both infrared cameras. If we see similar energy output measurements this week, I will be ready to declare victory [too strong of a statement], although cautiously and still uncertain about how long the reactors will operate on a fuel charge.

The shipping container also had the Bureau Veritas certified six-reactor boiler. We will spend the coming week getting it ready to operate, and we intend to use it for the 365 day test, required by our agreement with Dr. Rossi. This device heats diathermic oil which can be used for process heat or to boil water. Measuring heat transfer into liquid is less complicated than measuring radiated energy, so we hope to be more confident after this device begins to operate.

Investors and Strategic Partners

I went to Beijing on Sunday, 9/15 for meetings with government officials. I had told my Chinese business associates that it is premature to discuss IH until we have more definitive results, but they pressed me to come anyway because my next calendar opening would be several weeks further out. By the way, the son of one of these businessmen works for us in Raleigh, so he is very aware of what we are doing.

The Chinese are acutely interested because of their air pollution crisis. I met with a government-sponsored green investment fund; with a senior official in the agency that oversees electric power production and distribution; with local officials who want to host an R&D facility; and with a wealthy (\$3 billion) nickel mine owner who sees opportunity and who wants to invest in the parent IH company. I told everyone that I might have something to report in two months, at which time we could have a conversation. I returned on Wednesday night.

Intellectual Property

I have given extensive materials to our intellectual property attorneys at Myers Bigel [Redacted - Privileged] [Redacted - Privileged] with a Houston energy patent attorney as well, Todd Patterson. Then before we begin to implement a strategy, we will have it further reviewed by one of the big patent firms. We have no results back from their preliminary review.

We continue to have our weekly IP review meetings, at which those of us in the company discuss new ideas from the last week so Deep River can help us write the claims and pursue patents. Andrea Rossi and Fulvio Fabiani attended the last meeting and seemed to find it useful. This is important because they obviously have many patentable ideas.

Workshop

We have a great testing and production facility near Raleigh-Durham airport in a very incognito location. We are fully functional there for research-oriented production and for testing. Any of you would be welcome if you want to visit. Most of the time, Andrea, Fulvio, T Dameron, JT Vaughn and I are at that location. We also are hiring an electrician this week, and we have contractors available to do anything else we need to do. We have hesitated to staff up more, pending confirmation of success with our tests.

[Consider adding a section to provide your thoughts on Commercialization Strategy broadly--I think investors will be most interested in this. I don't want to shift the focus of the update, but it seems we should provide at least some commentary on our current thinking along these lines. Maybe something along the lines of what I said to Craig in a email yesterday about how we are thinking about a strategy which may entail developing a limited number of core products ourselves while simultaneously either 1) partnering with Fortune 500 type companies to jointly develop technologies in various industry verticals (e.g., Texas Instruments or Intel for chips; Google/Apple/Microsoft for server farm power supply; Boeing for defense and aerospace; etc., etc.) or 2) licensing our core technology to Fortune 500 type companies for development (in which case we would not jointly own IP--we would just receive licensing fees and royalty revenue). Of course we are considering a wide array of commercialization strategies, including open source business models, so we don't need to sound definitive--just show them we are beginning to think critically about this.

Also, you may want to discuss Government Relations/Compliance, noting that we are beginning to work on this and we perceive that the disruptive nature of our technology will necessitate significant attention on this front.

another email to follow

(JT: below is the last uodate, to compare)

Since my last update, we have been working on capital structure, IP, technology transfer, product development and competing technologies. I will discuss each of these below.

We raised approximately \$4.2mm of additional capital, of which we paid \$3.2mm to Dr. Rossi's former partners, a company called Ampenergo ("AEG"). As background, AEG had the right to receive approximately one-third of the proceeds we are paying for Dr. Rossi's intellectual property, based on a prior contract under which AEG provided support for Rossi's work. We modified this contract substantially when we entered into our agreement with Rossi and AEG, in order to reduce the total cost to us. For example, we paid Rossi \$10mm in May after he successfully exceeded our 24 hour challenge requirement of producing six times the energy required to operate his reactor. But instead of having to pay \$5mm to AEG, we agreed they would receive approximately \$500,000 upon success with the test, and we would have the right to convert the remaining \$4.5mm into equity instead of paying them any cash, at our option, within 45 days. When that date came, we asked to change the agreement again, paying them \$1mm and extending the decision point another 60 days for the remaining \$3.5mm, which we increased slightly in exchange for the extra time.

Last week, we paid them \$3.2mm and allowed them to convert \$500,000 into a 1% equity ownership in Industrial Heat, essentially the same as our recent offering. So, we are clear of any obligations to them or Rossi until the machine has operated successfully for 350 days out of the next 400 days. And, we will have about \$1.5mm cash, enough to operate into Q1 2013. This is important generally, but also because our highly-motivated, UK institutional investment fund has a temporary moratorium on closing any new private investments. They still plan to visit us in September, and they seem very interested still, but they will not be coming with funding approved. So, we need to consider initiating a process for significant future capital raising, once we have more test results. If our friends from England come through in the interim, we will stop the process. Meanwhile, we are being courted heavily by the Chinese government, which wants to invest *pari passu* with the Brits for a small percentage of the company in the U.S., but in addition, they would fund \$200mm of capital for a 49% position in a joint venture with Industrial Heat to develop this technology in China, for the domestic market. They are offering "control" to Industrial Heat, which I find surprising and I am not sure would be of any actual benefit to us. But this must be evidence of serious interest. My goal is to move slowly with this process, which is convenient because it seems that deals move very slowly there. I do not see this as being relevant regarding our capital raising process.

After Rossi finished the 24 hour test in May, he began the process of shipping the 1 MW plant to us, with its 105 individual 10 kW reactors inside. This took a long time because the container was non-standard, but it arrived at Norfolk on August 1. We had some disconcerting moments when customs first required an x-ray test to see what was inside the mysterious box, followed next by a special in-person inspection. But this should not have been surprising, since a Google search of the shipper would reveal they are in the business of making some kind of nuclear reactors (at least, "low energy nuclear reactors"). Notwithstanding the drama, our 1 MW unit successfully cleared customs Wednesday and will arrive in Raleigh Friday, 8/16/13. Rossi was extremely worried during this time because the 105 reactors inside are fueled and operational, so an invasive inspection could reveal their internal design and fuel systems. Now that it is over, perhaps we should be glad customs did thorough tests of the reactors, because this is further ratification that they are not radioactive or obviously harmful.

Our next and more important shipment arrives into Charleston on August 22. This container holds all the remaining tools, testing equipment and devices from Ferrara. Importantly, it contains a high temperature plant that we intend to operate for the 350-day test. This small but powerful plant produces much higher temperature steam than the older-technology 1 MW plant we operated for the 24 hour test. Its reactors are in sealed stainless steel tubes. We saw it when we were in Ferrara for our test, but it had not been operated at that time. Since then, Rossi operated the machine, and last week, we received a potentially significant certification from Bureau Veritas: "Conformity Examination Certificate, Machinery Directive 2006/42/EC." The 2006/42/EC rules pertain to industrial machinery, addressing such issues as operator safety, radiation, electrical and mechanical equipment, etc. CE certification would be similar to an Underwriters Laboratory certification, or perhaps to a building code inspection, except it applies to machinery. Products conforming to CE standards are stamped with "CE" written in an odd font—you will see this on the back of any laptop computer or TV, and compliance is required for most products sold in Europe. We probably will never sell this precise product, because no doubt designs will evolve quickly. But we find this significant simply because it means the plant operated for some significant period while Bureau Veritas was making their assessment, and it must be reasonably controllable or else it seems it would not have passed. So, while not specifically very important, we perceive that a third party validation of CE conformity for the high temperature unit is generally quite significant.

Our IP process is beginning to work. Every Friday we meet with Paul Morris, who has a few hundred patents in his name, and who is in charge of capturing new inventions from our team. We now have about 7 new ideas which might evolve into patent disclosures, plus an additional 7 disclosures on which we intend to file, plus our three filed provisionals and Rossi's various non-core provisionals. None of these new inventions disclose Rossi's the core IP, which remains a trade secret for now. They have to do with features or designs that will enhance or benefit the core reaction. Dr. Rossi increasingly agrees that patenting his central invention may be sensible. To implement this, we intend to start with two local firms, Myers Bigel and Patterson Sheridan, which is headquartered in Houston and specializes in energy, but they have an office in Greensboro. No doubt we will bring in larger firms as well later, but we want to start with people we know. And, we will use the local firms for the many ancillary patents we intend to file surrounding the core IP.

One reason Rossi believes we should file patents on his technology is that he wants to build a domestic device which would operate inside or beside a home or apartment to produce heat and hot water. This is fundamentally different than the strategy of making central power plants that could be controlled and secured from theft. We are not convinced we will be ready to put these devices inside homes anytime in the near future, but we do agree this is a useful idea and that the resulting products could have many applications in industrial settings as well as home applications. They will use an entirely new design of reactor, resembling a flat plate, which will be the third reactor version, after the original low temperature boxes and the recent high temperature tubes. Rossi has been told by Bureau Veritas that they would certify this new device for home use under CE standards, assuming it works similar to the high temperature plant. We have prepared design drawings for this new machine, and we expect to build it in our shop once the equipment arrives. We already have built some of the actual reactors for this device.

We are finishing the upfit of our 10,000 square foot machine shop and testing facility, and we will move in soon. It is in a discreet location, intended not to attract attention to our work. We would not expect to be in this facility for very long, but for now it will be very useful. We hope to test the high temperature unit in this facility initially. Later on, ideally, we will find a beta customer in the local area that needs steam, with a secure site. We are impeded in finding this customer now because we are not publicizing our involvement. But if any of you have a suggestion, please let me know. Obviously this needs to be someone who would find this to be interesting or else they will not be willing to spend time seeing if this could work at their facility. Universities or hospitals would make sense, but they probably will not want this new device on site. We would be happy to provide very discounted energy. We should make between 50 kW and 100 kW of steam energy, at a maximum temperature of perhaps 300 degrees centigrade. We could also make hot water if that is preferable to steam.

Our IP team, Paul Morris and Dewey Weaver, went to two important conferences this month: ICCF 18 at University of Missouri, and NI Week at National Instruments in Austin, TX. The former is a LENR conference, attended by most of the known researchers in this field, but never by Rossi. They were well received, because these researchers do not meet very many business people, and because they discussed with some of them the idea of acquiring or investing in their IP, which is something we want to do in the future because some of them are making progress that could benefit us. Paul and Dewey returned feeling that they had met almost all the important industry participants. Among the attendees they met was the highly respected CEO of National Instruments, James Truchard, who is a strong supporter of LENR.

Also there was a team from Defkalion, a Greek company now located in western Canada, which initially had a business relationship with Rossi. He terminated it because Defkalion never showed evidence of having any capital, and he became convinced they wanted to take his technology. In fact, after Rossi backed out, the Greek CEO wrote that he had stolen Rossi's IP. Rossi said this was untrue because he never gave them any information, which would be consistent with how he dealt with us prior to our funding, so I am inclined to believe him. But in any event, they are not viewed as being fully above board. Notwithstanding this, I have always assumed they were one of the serious competitors working in this field. Defkalion held a seemingly credible demonstration of their device at ICCF 18, using National Instruments meters to show they were producing a multiple of the energy they were using. Most in attendance seemed skeptical, but we did not have an opinion.

A week later at National Instruments' new technology conference in Austin, James Truchard approached our IP guys, who he had gotten to know at ICCF 18. He asked directly if they did any work with Defkalion. Hearing they did not, he proceeded to tell them that his team furnished the instruments for the Defkalion test, and that they had discovered a fraudulent modification to the testing equipment which falsified or exaggerated the results shown at ICCF 18. He said he had spent thousands of dollars that week on lawyers writing letters to Defkalion, separating NI from any apparent endorsement of the Defkalion results and informing them that NI knew of the deception. This week, we heard that Defkalion is in discussions with underwriters about a Canadian IPO.

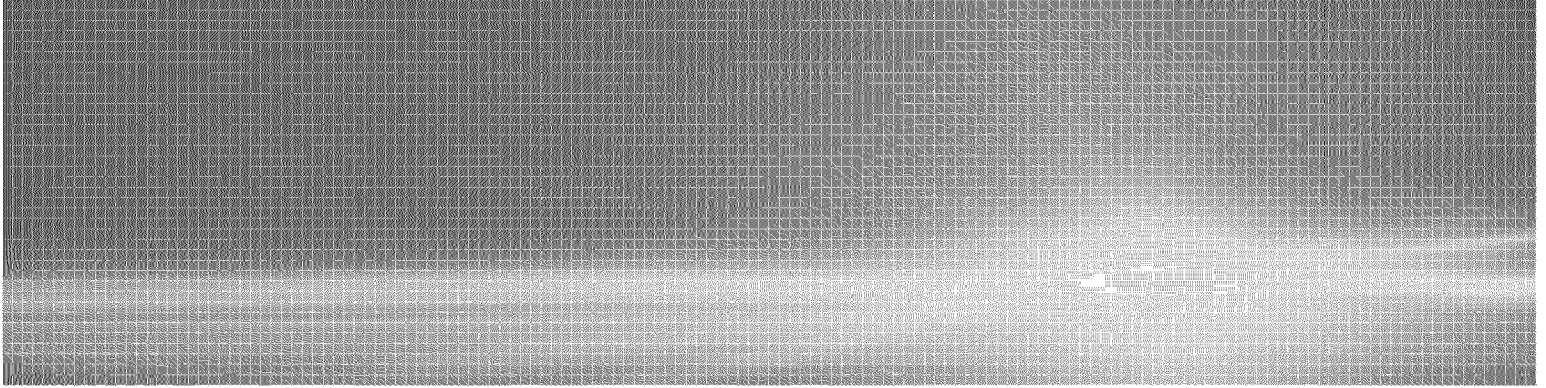
I would not go into this sordid and only marginally relevant detail, except for the fact that this could generate some publicity, which would be very unfortunate for this already marginalized field of research. We wanted you to know about this, for what it is worth. In an ideal world, the offering will not happen and this will die a quiet death. But alternatively, it could be a mess.

Other than working on new IP and finishing the factory space, we will not have much to report before the second container arrives in Raleigh, maybe a week after 8/22. We might have a test operating by mid-to-late-September, at which point I hope you will visit.

Thanks for your support, and please offer input and ideas.

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Industrial Heat

IPH International, B.V.

18-Month Business Plan

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Goals and Risks

INDUSTRIAL HEAT

Industrial Heat ("IH") was formed in 2012 by a group of individuals, led by Tom Darden and other principals of Cherokee, with the goal of addressing air pollution by providing clean energy. Low Energy Nuclear Reaction ("LENR") technologies may have the potential to provide clean, scalable energy—ultimately supplanting coal, oil, gas and nuclear fission as primary energy sources.

IH acknowledges the risks inherent in such an endeavor, as well as the colored history of the LENR sector at large. Furthermore, IH is well aware of the often challenging path to commercialization when introducing a novel technology into an established, well-capitalized market. Even considering these risks, inherent challenges and anticipated difficulties, IH is committed to developing its core technology as well as other technologies in the LENR sector. IH will seek to mitigate risks as much as possible by, for example, putting in place a thoughtful IP strategy, and partnering with established technology firms and other LENR experts. Nevertheless, IH does not anticipate a swift or seamless path to commercialization. We are seeking investors who share our determination and long term approach.

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1

Overview and Assumptions

INDUSTRIAL HEAT

- IH is raising capital to accomplish several primary objectives:
 1. Conduct further validation and replication tests of its core technology using multiple best-in-class experts.
 2. Retain premier strategy consulting and investment banking firms to assist in developing and implement IH's business plan.
 3. Identify and recruit a CEO and support him/her in building the team; secure and up-fit office space; fully up-fit and instrument the lab.
 4. Conduct further R&D on the core technology internally; simultaneously provide a limited license of IH's technology to other top LENR inventors and established technology firms to encourage them to assist in developing the technology. Thereafter, likely work with leading, established technology firms to implement the technology worldwide.
 5. Invest in other LENR technologies through: 1) licensing or acquiring IP, 2) incentivizing the top independent LENR inventors to join the IH team, or 3) investing in or acquiring other startups in the sector.
 6. Return capital to existing investors. We do not intend to do this until six months post closing, and then only with the consent of Woodford Funds.

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2

Overview and Assumptions

INDUSTRIAL HEAT

- All budget amounts are provisional and subject to change, pending the results of:
 1. further validation and replication tests, which will be conducted by experts as soon as possible post closing,
 2. the strategy development work to be conducted by a premier strategy consulting firm,
 3. the performance of Rossi's 1MW reactor, or
 4. other unforeseen developments.
- Gating milestones:
 1. Successful validation of the core technology by others. Detecting excess heat or changes in isotope concentrations would be considered significant validation.
 2. As much as possible, we intend to incrementally fund R&D of our core technology, as well as investments in other LENR technologies. If at any time it becomes apparent that any given LENR technology in which we invest is not likely to achieve worthwhile commercialization, for whatever reason, we will either stop funding its development or seek alternate funding sources for its development (e.g., philanthropic sources), if justified.

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Uses of Capital

INDUSTRIAL HEAT

Funding will be broadly allocated as such:

- **Strategy Consulting:** IH intends to retain premier strategy consulting and investment banking firms to provide counsel on a range of matters, including but not limited:
 1. development of a detailed global business strategy, and worldwide capitalization plan
 2. identifying and brokering joint development or licensing agreements with large, established technology partners, and
 3. Development of international corporate structure and organization design.
- **G&A Expenses:** the leadership and management team at IH needs to be built out. In addition to salaries, the G&A budget will also cover normal operating costs such as rent, legal, accounting, travel and insurance costs.
- **Research & Development:** further R&D needs to be conducted around the fuel and the reactor. Initially, IH will seek to replicate preliminary performance results using outside experts. Assuming replication is achieved, IH will begin working to further understand the nature of the reaction as well as to develop IP related to the core technology, such as: controls, packaging, manufacturing, storage, monitoring, safety, security, distribution and user interaction technologies.

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4

Uses of Capital

INDUSTRIAL HEAT

- **Capital Expenditures:** IH will need to secure and up-fit office space as well as further up-fit its lab in the Research Triangle, in addition to possibly securing laboratory space for Rossi in Florida. Significant investment in security will be required for IH's facilities and also for its information technology and data storage infrastructure.
- **Repay Existing Investors:** IH has been funded to date by a group of individual investors. These investors do not have long time horizons and IH would like to return capital to them so as to minimize their impact on any future strategic decisions. IH proposes returning capital to the existing investors at the 6-month mark, with consent of Woodford Funds.

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5

Uses of Capital

INDUSTRIAL HEAT

- **LENR Sector Investments:** IH has invested significant time and resources in building relationships with the top inventors in the LENR sector. We believe it is valuable and important to invest in and support initiatives across the sector, as well as to retain other leading researchers to work on our core technology. Sector investments may include:
 - Dennis Letts
 - Chris Cooper, Dennis Cravens and Tom Claytor, Cooper Core Tech
 - Tony Lagatta, Mike McKubre and Trevor Dardik, UniTsem
 - Peter Hagelstein
 - Tadahiko Mizuno
 - Mitchell Swartz, JET Energy
 - Chava Energy
 - George Miley, Lenuco
 - Curt Brown, PointSource
 - Robert Godes, Brillouin
 - Francesco Piantelli, Nichenergy
 - Advisors: Edmund Storms, Yeong Kim, Mel Miles, Jed Rothwell, Larry Forsley, Pam Boss

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18 Month Quarterly Budget

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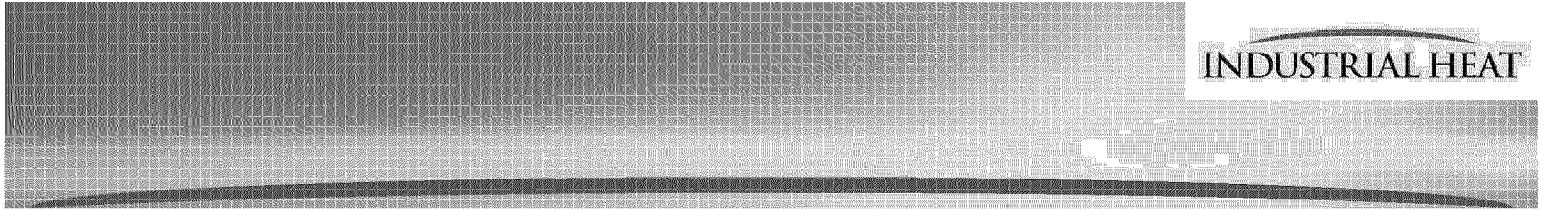
- Projected quarterly budget for the 12-months post closing. Assuming an initial \$25M in funding, additional funding will be needed by the end of the third quarter. If Rossi is on track to earn his \$89M success fee, then IH may seek up to an additional \$150M as early as Q3.

Uses of Capital	Q1	Q2	Q3	Q4
Strategy Consulting	\$ 800,000	\$ 700,000	\$ -	\$ -
G&A	600,000	900,000	1,100,000	1,350,000
R&D	450,000	950,000	1,500,000	2,250,000
LENR Sector Investments	1,150,000	5,500,000	2,500,000	650,000
CapEx	-	1,500,000	1,000,000	-
Repay Existing Investors	-	5,000,000	-	-
Rossi Contingency	-	-	-	89,000,000
Total	\$ 3,000,000	\$14,550,000	\$ 6,100,000	\$ 93,250,000
w/o Rossi Payment	\$ 3,000,000	\$14,550,000	\$ 6,100,000	\$ 4,250,000
Reserves*	\$22,000,000	\$ 7,450,000	\$ 1,350,000	\$ (91,900,000)
w/o Rossi Payment	\$22,000,000	\$ 7,450,000	\$ 1,350,000	\$ (2,900,000)
Cumulative Spend	\$ 3,000,000	\$17,550,000	\$23,650,000	\$ 116,900,000
w/o Rossi Payment	\$ 3,000,000	\$17,550,000	\$23,650,000	\$ 27,900,000

*Assumes \$25M funding

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Industrial Heat
IPH International, B.V.
Amsterdam, The Netherlands

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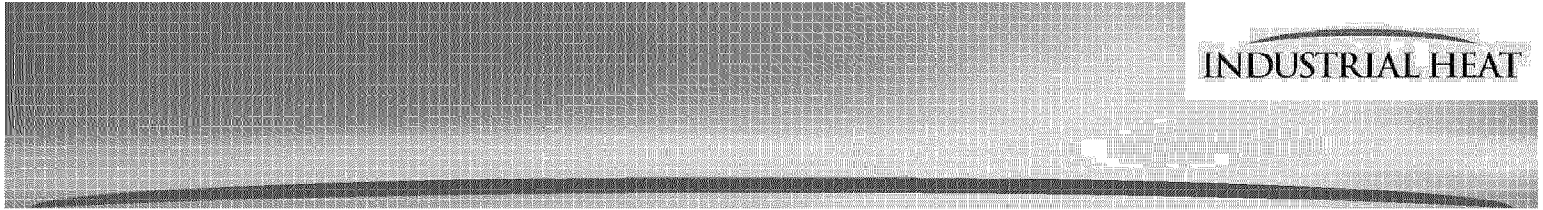


Exhibit 1

LENR SECTOR INVESTMENT OPPORTUNITIES

Dennis Letts

INDUSTRIAL HEAT

- Working on an LENR water heater design, based on 24 years of direct research and over 7,000 LENR experiments personally conducted by Letts.
 - Letts was trained by John Bockris and has published more than 10 peer reviewed papers, spanning from 1993-2013.
- The Hagelstein-Letts Excess Heat Prediction Formula has consistently proven accurate in over 40 LENR experiments conducted by Letts.
- Letts's LENR water heater design is based on a Pd/D2 gas charged, high voltage vacuum tube.
 - This design, if successful, will cut the 20-year electricity cost of a 1500W water heater from over \$16,000 to less than \$700.
- Letts has agreed to sign over all IP to IH in exchange for adequate liability protection, invention credit and publication privileges, a small royalty and assurance that IP will be properly protected and exploited.
- Estimated year 1 investment: \$500k; Location: Austin, TX, USA

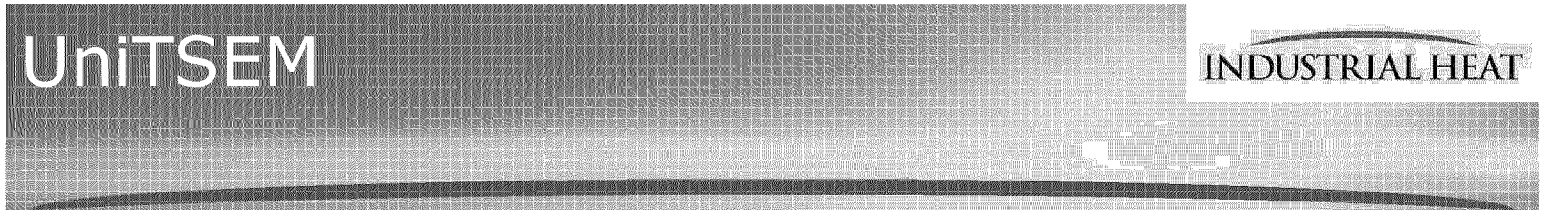
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Cooper Core Tech, Inc.

INDUSTRIAL HEAT

- Team is led by Chris Cooper and his father, Bill Cooper, and also includes Dennis Cravens and Tom Claytor, both leading LENR researchers.
- Chris has led the development of multiple break through technologies, including: superconducting circuits for quantum computation at Dartmouth; nuclear reactor / high vacuum systems, cryogenics and micro-machining through work with University of Washington, Lawrence Livermore Labs and Seldon Technologies, his first startup.
- Cooper Core Tech plans to develop a proprietary reel-to-reel nano-scale discovery machine to quickly and efficiently characterize and test the performance of high volumes of various LENR fuel combinations. If successful, this type of discovery machine could tremendously expedite fuel optimization.
- Additionally, Cooper Core Tech plans to test a new type of turbine that may pare especially well with an LENR energy source.
- Estimated year 1 investment: \$2M; Location: Santa Fe / Albuquerque, NM, USA

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- Team includes Antonio La Gatta, Mike McKubre and Trevor Dardik.
 - Antonio La Gatta is the founder of a successful Italian engineering firm, TSEM s.p.a, which today employs over 80 people. La Gatta has discovered a system for triggering and enhancing LENR reactions in electrolytic Pd/D2 cells.
 - Mike McKubre is the retiring head of LENR research at SRI International in Menlo Park, CA. Mike is a well respected researcher in the field and will serve as a scientific advisor. He will spend 6 months/year in Lubbock.
- UnitSEM is located in Lubbock, TX and will own the LENR IP developed by La Gatta.
 - La Gatta, McKubre and Dardik are all in the process of relocating to Lubbock to launch UnitSEM and further develop the LENR triggering technology. Lubbock was chosen due to security and resource availability, including significant incentives from the Lubbock Economic Development Agency and technical assistance from Texas Tech University.
- La Gatta's original prototype experiment is believed to have generated a COP in excess of 1,000, with 70mW input power, and a duration of 10 minutes. It was witnessed by Vitoria Violante of ENEA (the Italian Energy Department).
- Estimated year 1 investment: \$1M; Location: Lubbock, TX, USA

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Peter Hagelstein

INDUSTRIAL HEAT

- Peter Hagelstein led the Department of Defense nuclear laser project in the late 1980s and was named the youngest "JASON" in US History. Currently, he is a professor at MIT and leads MIT's LENR research, calorimetry and characterization efforts.
- Peter has been working on LENR since 1989 when Fleishman and Pons announced their initial discoveries. He is particularly focused on the supporting math and theory associated with reaction.
- Peter's research team at MIT previously devised a doped copper toroid experiment that has the promise of confirming metal energy. The concept was prototyped and tested by Mike McKubre at SRI with successful detection of energetic particles. Peter intends to use funding to re-start this research.
- Estimated year 1 investment: \$300k; Location: MIT, Cambridge, MA, USA

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Tadahiko Mizuno

INDUSTRIAL HEAT

- Mizuno's 1976 PhD thesis focused on the formation process of hydrides on metals. In 2004, he was awarded the Preparata Medal by The International Society for Condensed Matter Nuclear Science in recognition of his work in the LENR field.
- In 1991 Mizuno was operating an LENR experiment that proceeded to "runaway." Even after unhooking the experiment from all external power and placing it in a water bath, it continued to boil water for a week after being unplugged. In all, it boiled 35 liters while unplugged, according to accounts of the experiment. Unfortunately, Mizuno did not replicate this reaction and only he and his lab tech witnessed it.
- Mizuno is currently working on an in-situ plasma generated catalyst for gas-charged Ni/H₂/D₂ reactor design. His goal is to build 1kW and 10kW glow discharge reactors that generate temperatures up to 650C.
- Estimated year 1 investment: \$1M; Location: Sapporo, Japan

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Mitchell Swartz, JET Energy

INDUSTRIAL HEAT

- Mitchell Swartz, a research oncologist, clinical psychologist and LENR researcher for the past 25 years, has developed a self-sustaining low power LENR wire called the Nanor.
- The latest generation of the magnetically tempered Nanor wire continues to operate in low power excess heat cycles without degradation.
 - Reported consistent COPs between 100-300 at the mW level
 - COP of 2 at 2W input
- Swartz continues to have IP difficulties with the USPTO, which could be due to his relatively aggressive style with USPTO examiners. IH may be able to assist in this regard—potentially helping Swartz get one or more patents issued.
- This technology appears to be ready for quality and reliability testing at the 1W to 5W input levels.
- Estimated year 1 investment: \$1.5M; Location: Wellsley, MA, USA

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Chava Energy

INDUSTRIAL HEAT

- Chava Energy is led by Hagen Ruff, a successful IT entrepreneur, and Mark Snoswell, a 3D modeling expert and molecular biochemist by training.
- Chava has an intricate understanding of quantum state energy exchange and has developed a computer model to assist in their energy experiments and prototype development.
- Chava is in the process of consolidating their five existing labs into two, with a focus on LENR, specifically fractionated Hydrogen, and quantum vacuum energy exchange.
- Estimated year 1 investment: \$1M; Location: Miami, FL, USA

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George Miley, Lenuco

INDUSTRIAL HEAT

- George Miley is Professor Emeritus of Nuclear, Plasma and Radiological Engineering and Electrical/Computer Engineering at the University of Illinois, Urbana-Champaign. He is also the founder of Lenuco, an entity he setup to further his LENR.
- Internationally recognized researcher: Preparata Medal 2006-2007 by The International Society of Condensed Matter Nuclear Science, 2006 Integrity in Research Award for fusion research; 2004 ANS Radiation and Isotopes Research Award; 2003 IEEE Fusion Technology Award; 1996 Edward Teller Medal for ICF research; 1993 ANS Fusion Energy Achievement Award; Guggenheim fellow and Senior NATO Fellow.
- Has developed a gas-charged Zr/Pd/Ni/D₂ pressure induced reactor design. Focused on refined nano-particle manufacturing methods and extending and controlling the reaction runtime.
 - Miley is planning to develop three additional prototypes for verification purposes and would then like to optimize the reactor design and thermoelectric conversion.
- Estimated year 1 investment: \$500k; Location: Champaign, IL, USA

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Brillouin Energy

INDUSTRIAL HEAT

- Robert Godes is the founder and chief scientist at Brillouin. Brillouin's technology is focused on a controlled electron capture reaction. Supposedly, hydrogen from water is combined with a nickel lattice, which is compressed as an electronic pulse passes through the system.
- Brillouin has been working under contract with Mike McKubre at SRI to verify excess heat, He3 and He4 production. Results to-date appear mixed.
- Brillouin has responded positively to input and guidance from SRI and is in the process of revisiting their reactor and validation methodology.
- IH will continue to monitor Brillouin progress and make investment decisions accordingly.
- Estimated year 1 investment: \$500k; Location: Berkley, CA, USA

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PointSource

INDUSTRIAL HEAT

- PointSource has licensed three LENR patents from Cravens, all of which relate to a solid state tokamak LENR reactor developed by Dennis Cravens.
- PointSource is being assisted by two LENR research verterans: Larry Forsely and Pam Boss. Larry and Pam are helping with materials selection and alloy/catalytic test mixtures.
- PointSource is using a gas-charged, solid state Zr/Pd/D2 fueled reactor with radio frequency and electromagnetic controls.
- PointSource has achieved excess heat and reactor control at the mW level and is preparing to scale the project post funding. They also intend to further develop control and application systems.
- Estimated year 1 investment: \$1M; Location: Nevada City, CA

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Francesco Piantelli

INDUSTRIAL HEAT

- Piantelli, like Rossi, collaborated with Sergio Focardi. Piantelli is a respected and longstanding LENR researcher.
- Piantelli has developed a Ni/H₂ based reactor that evidently consumes 20W and puts out 71W. This reaction has been confirmed by Peter Hagelstein and Mike McKubre.
- Piantelli has been issued a European patent for this reactor. It is specifically described as, "...a process for producing energy by nuclear reactions between a metal and hydrogen that is absorbed on the crystalline structure of that material."
- Estimated year 1 spend: \$500k; Location: Siena, Italy

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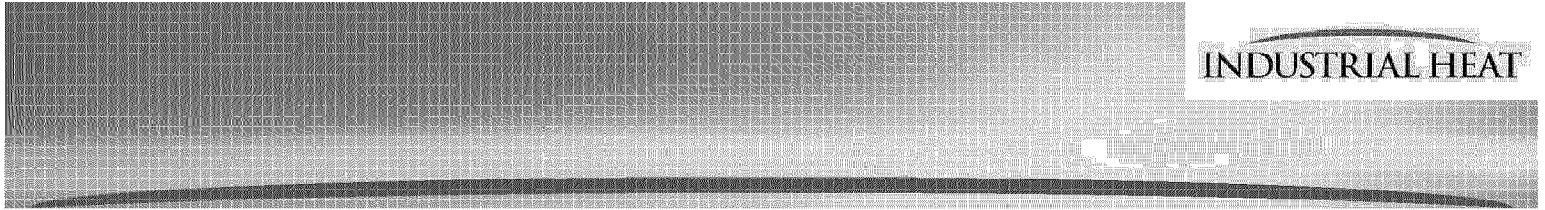


Exhibit 2

INTELLECTUAL PROPERTY STRATEGY

IP Strategy Overview

INDUSTRIAL HEAT

- Identifying, creating and capturing valuable intellectual property ("IP") is a core component to Industrial Heat's business model. IH believes that most companies over spend and under deliver when it comes to generating and protecting valuable intellectual property.
- IH has retained Paul Morris to establish an IP team and process that will allow IH to manufacture valuable IP at a significantly higher rate and lower cost than most large, IP driven companies.
 - Morris has produced over 300 issued and pending patents, which have generated over \$370M to-date in licensing and royalty fees. His methods and techniques are teachable and replicable.
- IH intends to implement Morris's proprietary, experience-based process to capture more IP, file fewer original applications and harvest valuable IP as it matures. Key goals of our IP program will include:
 1. Do not lose IP: most patentable subject matter is never identified at most companies.
 2. Low cost: IP costs are higher than stated at most companies. A patent costs between \$1-2M in most large, IP driven companies. IH hopes to generate patents a significantly lower cost.
 3. High quality: only about 1% of issued patents have commercial value—IH intends to generate valuable patents at a much better rate.

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CONFIDENTIAL MEMORANDUM

Industrial Heat, LLC IPH International B.V.

July 2014

This Confidential Memorandum (the “Memorandum”) is furnished on a confidential basis to a limited number of sophisticated investors for the purpose of providing certain information about an investment in IPH International B.V., a company organized under the laws of the Netherlands (“IPH”). IPH is currently a wholly-owned subsidiary of Industrial Heat, LLC, a company organized in the United States under the laws of Delaware (“Industrial Heat” or “IH”). IPH and IH (sometimes referred to herein collectively as the “Companies”) are currently developing a low energy nuclear reaction technology that is more particularly described in this Memorandum.

No offering of securities by IPH has been approved or disapproved by the securities regulatory authority of any country or other jurisdiction, including, without limitation, the United States Securities and Exchange Commission, nor has any such securities regulatory authority passed upon the accuracy or adequacy of this Memorandum. No securities of IPH will be registered under the securities laws of any country or any political subdivision thereof, nor is any such registration contemplated. Securities of IPH will be offered and sold only to sophisticated investors qualified to purchase such securities under available exemptions from applicable securities laws in the countries and jurisdictions where the offering will be made. There will be no public market for the securities of IPH and no such market is expected to develop in the future. The securities of IPH will be subject to substantial restrictions on transfer and may not be sold or transferred unless such securities are registered under the applicable securities laws of each relevant country or other jurisdiction or an exemption from such registration is available.

This Memorandum does not constitute an offer to sell or a solicitation of offers to buy securities of IPH. Any such sale of securities will be made only pursuant to such written definitive agreements as may be executed by IPH and an investor, and the investor may rely only upon such representations and warranties as may be made to it by IPH or any other party in any definitive agreement that may be executed in connection with a sale of securities of IPH. In making an investment decision, prospective investors must rely on their own examination of IPH and Industrial Heat, as applicable, and the terms applicable to their investment, including the merits and risks involved. Prospective investors should not construe the contents of this Memorandum as legal, tax, investment or accounting advice, and each prospective investor is urged to consult with its own advisers with respect to the legal, tax, regulatory, financial and accounting consequences of any investment in IPH. This Memorandum does not purport to contain all of the information that a prospective investor may wish to evaluate in connection with such an investment.

Industrial Heat and IPH each reserves the right to provide copies of this Memorandum to such prospective investors as they shall deem appropriate and to negotiate with, or enter into definitive agreements for the sale of securities to, one or more investors or prospective investors as IPH shall deem appropriate, without prior notice to any other recipient of information or any other person. IPH and Industrial Heat each reserves the right to terminate, at any time, discussions with any other person or further participation by any other person in a review and evaluation of the Companies in connection with a proposed investment or other transaction.

The information contained in this Memorandum is furnished solely for use in connection with the consideration of a possible investment in IPH or another business transaction with IPH or Industrial Heat. Such information should be treated in a confidential manner and may not be reproduced or used in whole or in part for any purpose other than consideration of such investment or other potential transaction, nor may it be disclosed to third parties, other than employees, agents and legal and accounting advisors and other representatives of the recipient of this Memorandum who need to know such information in connection with the evaluation of a possible investment or other transaction with IPH or Industrial Heat, provided that each such person is advised of the confidential nature of the contents hereof and agrees to treat the information contained herein as confidential. Each prospective investor who accepts this Memorandum agrees by such acceptance to return it to IPH or Industrial Heat promptly upon a request for such return.

Statements contained in this Memorandum (including those relating to current and future market conditions and trends in respect thereof) that are not historical facts are based on current expectations, estimates, projections, opinions and/or beliefs of the Companies. Such statements involve known and unknown risks, uncertainties and other factors, and undue reliance should not be placed thereon. Certain information contained in this Memorandum constitutes "forward-looking statements," which can be identified by the use of forward-looking terminology such as "may," "can," "will," "would," "should," "seek," "expect," "anticipate," "project," "estimate," "intend," "continue," "target," "believe," or the negatives thereof or other variations thereon or comparable terminology. Due to the various risks and uncertainties associated with an investment in IPH, actual events or results, actual market conditions or the actual performance of IPH or Industrial Heat may differ materially from those reflected or contemplated in any such forward-looking statements.

An investment in IPH is suitable only for sophisticated investors and requires the financial ability and willingness to accept the extremely high risks and lack of liquidity inherent in an investment in IPH, including the risk of potential loss of the full investment. Investors in IPH must be prepared to bear such risks for an extended period of time. No assurance can be given that IPH will be able to implement its strategy or achieve its objectives. Each prospective investor must conduct such due diligence as the investor may deem appropriate to investigate the technology, business, resources and prospects of IPH and Industrial Heat. Some, but not all, of the risks of an investment in the Company are set forth in Section IV of this Memorandum and should be carefully evaluated before making an investment in IPH or entering into any other transaction with IPH or Industrial Heat.

All inquiries and requests for further information concerning IPH or Industrial Heat or a potential investment or other transaction with either of the Companies should be directed as follows:

Attention: Tom Darden
111 East Hargett Street, Suite 300
Raleigh, North Carolina 27601
Phone: 919-743-2506
Fax: 919-743-2502
Email: tdarden@industrialheat.co

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A. Published report concerning December 2012 and March 2013 test of E-Cat reactor: <i>“Indication of anomalous heat energy production in a reactor device containing hydrogen loaded nickel powder.”</i>	
B. Preliminary draft report concerning March 2014 test of E-Cat reactor: <i>“Report on the Lugano Test—Preliminary Draft”</i>	
C. Industrial Heat LENR Contacts	
D. E-Cat licensing agreement:	
o “License Agreement” between Industrial Heat, Andrea Rossi/Leonardo Corporation and AmpEnerg, Inc., including amendment and assignment.	
o “Contribution Agreement” between Industrial Heat and AmpEnerg, Inc., including amendment and Letter Agreement.	
E. Intellectual property filed by Industrial Heat	

F. Report by Engineer Fabio Penon on the May 2013 Ferrara test

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I. EXECUTIVE SUMMARY

The investment opportunity described in this Memorandum has the potential for substantial environmental and economic impact. Because the merits of this investment are generally apparent, prospective investors should focus primarily on downside risks. Therefore, please begin by reading the entire Risk Factors section (Section IV).

Industrial Heat Business Overview: Industrial Heat (“IH”) is focused on identifying and developing promising low energy nuclear reaction (“LENR”) technologies and working with leading industrial partners to commercialize these technologies. Industrial Heat has made an initial investment in what appears to be one of the most promising LENR technologies, the E-Cat developed by Andrea Rossi. In addition, IH has cultivated relationships with a number of other promising LENR inventors, and also plans to invest in and support these inventors as they work to develop further their inventions.

Use of Funds: IH, through its subsidiary, IPH, is undertaking to raise \$50 million currently, as part of a planned \$200 million capitalization. This will cover operational, R&D and investment expenses over the next 12-18 months, and will provide funds to return capital to the initial IH seed investors. In addition, IH will use a portion of this capital to retain consulting and investment banking firms to provide strategy and capitalization advice.

Risk Factors: Investing in Industrial Heat entails investing in a sector with many unproven technologies. IH also faces the normal risks associated with introducing a new technology into a mature market. **Any investment in Industrial Heat should be considered highly speculative and subject to substantial risk of loss.** Prospective investors should read in detail the Risk Factors section at the end of this Memorandum.

Reorganization: Industrial Heat and IPH are currently operating in a parent-subsidary structure, with Industrial Heat existing under United States (Delaware) law as the parent entity of IPH, with IPH being organized as a Dutch entity. Prior to closing of an additional investment in IPH, the Companies intend to consummate a reorganization pursuant to which such parent-subsidary structure will be collapsed, with IPH, organized under Dutch law, being the surviving and continuing entity. Following this reorganization, the business operations of IPH and Industrial Heat will be conducted going forward through a structure whereby IPH will be the primary entity for intellectual property holdings, with subsidiaries in the United States and other foreign jurisdictions to be organized and utilized as required to carry out research and development and sales and marketing activities in those jurisdictions where IPH elects to do business. Prospective investors should consider an investment in IPH in light of this expected operating structure. References herein to “Industrial Heat” or “IH” should be construed to mean the surviving entity in the contemplated combination and reorganization, and, with respect to periods prior to such reorganization, such references should also be construed to include IPH as Industrial Heat’s wholly-owned subsidiary, in each case as the context may require.

Exhibits: All exhibits should be reviewed in detail. Exhibits include: the E-Cat independent test reports, Industrial Heat LENR Contacts, the E-Cat licensing agreement and a list of intellectual property filed by Industrial Heat.

II. INDUSTRIAL HEAT BUSINESS OVERVIEW

A. History

Industrial Heat was formed by a group of individual investors in the fall of 2012 to support and invest in LENR technologies, beginning with the E-Cat developed by Andrea Rossi of Leonardo Corporation (“Leonardo”). If proven reliable and controllable, LENR technologies will be highly important because they provide significant energy density without using radioactive material or generating radioactive waste, and they emit no carbon dioxide or other pollutants.

The founders of Industrial Heat have a long background investing together in early-stage companies, many in the environmental sector. Thomas F. Darden left Bain and Company in 1983 to acquire a North Carolina business using fossil fuel energy and converted it to biomass energy. He joined Joseph D. Pike in the purchase of a medical product business in 1986, leading to a continuous business relationship where each invested in and helped manage the other’s environmental or medical companies. Pike moved to San Diego in 1991, which became the focus of the medical activity. John A. Mazzarino left Bain and Company in 1989 to work with Darden in North Carolina, as they increased their focus on investing in businesses affected by environmental policy or environmental objectives. Since the initial investment, these three individuals have started or invested in well over 100 separate private transactions, the majority being early stage venture or startup deals.

Darden and Mazzarino, often assisted by Pike’s capital and relationships, invested in or founded many environmentally-related companies. A small subset include: Biosystems Technology, using bacteria for waste remediation, with professors from Virginia Polytechnic University; Cherokee Environmental Group, using multiple technologies for cleaning up contaminated soil; Cherokee Environmental Risk Management, providing insurance for environmental contamination; Brownfield Revitalization, LLC, allocating New Markets Tax Credits to encourage development on brownfield sites located in low income areas; Eco-Site, building cell towers on urban brownfield sites; Power Generation Services, Inc, “(PGSI)” providing smart grid services; and BaseTrace, using DNA fragments to identify specific sources of fracking fluid, radioactive water or other liquid contaminants to be sure they do not leak. Darden was awarded a U.S. patent in 2014 for the technology used by PGSI for controlling broadly-distributed sources of power on electrical grids, and he was nominated for the Zayed Future Energy Prize in 2012.

Redacted - Other Investment

Industrial Heat, LLC was created as a Delaware limited liability company in October 2012, to focus primarily on Rossi’s technology, but also to approach other inventors. JT Vaughn became the manager, with substantial involvement by Darden and management oversight by Mazzarino and Pike.

Thomas Barker Dameron, a retired GlaxoSmithKline engineer and energy specialist, began managing the technical support for Rossi as well as the technology assessment and verification process, focusing on energy measurement and test protocols for the performance tests IH used in making the initial investment decision. Others supporting Industrial Heat include the accounting and finance team at Cherokee Investment Services, LLC; corporate counsel (Schell Bray PLLC and Weidema von Tol); patent counsel (Myers Bigel Sibley & Sajovek); tax consultants and accountants; and intellectual property consultants (Deep River Ventures, LLC).

Industrial Heat, LLC was organized in the U.S. as a Delaware company in anticipation of IH being a globally focused business with international investors and subsidiaries. Management decided early on to set up a Dutch subsidiary, IPH International B.V. to own all IH intellectual property. The Netherlands was selected as the home jurisdiction for this subsidiary based on a variety of tax, legal and regulatory issues that were considered by management at that time. As previously noted, management now anticipates a reorganization in which the parent-subsidiary structure will be collapsed and the Dutch entity, IPH International B.V. will be the surviving and continuing entity. All existing investors in Industrial Heat, LLC will be transferred to IPH International B.V. and new investors will purchase stock or other securities in IPH International B.V. (Dutch) as opposed to Industrial Heat, LLC (U.S.).

Rossi has a history of failed business relationships and conflicts, and he is difficult to communicate and work with. However, he appeared to have a remarkable technology, so the principals of IH were willing to invest a great deal of time and to be more tolerant of eccentric or difficult interpersonal characteristics than one normally would, or than Rossi had experienced with others in his prior business relationships. This led to an unusual but relatively attractive business structure. IH took excessive risk with relatively small amounts of capital up front, but no large payments would be owed unless the technology proved to be extremely successful. Furthermore, IH is not obligated to pay any future royalties, and the Company owns all of the equity, i.e. this was not structured as an investment into an entity that Rossi owns part of or controls, as is often the case with early stage deals.

IH paid Rossi \$1.5 million in advance, to buy a 1 MW plant that he had begun to build but had not finished or tested. Rossi would have been obligated to return the funds if the machine had failed to meet its performance requirements, but collecting on this obligation would have been unlikely in that event. He used these funds for the plant but also to satisfy other unrelated financial obligations, which clearly were distracting him. IH agreed to pay him an additional \$10 million for the technology rights in IH's markets—representing 57% of world energy demand—if the plant could pass a 24 hour test at a Coefficient of Production ("COP"), which is the ratio of energy produced versus energy input, of 4 or better.

IH hired a consultant, Fabio Penon, who also does consulting work for Bureau Veritas in Italy, to certify the test results for the 1 MW plant and to be responsible for the measurement of energy input and output. The test was performed on April 30, 2013, and the calculated COP was 10.85. Rossi requested that he be able to operate only 18 of the 107 reactors in the 1 MW plant, because he said he could not get local permits to operate a generator with enough output to run the whole machine. IH agreed, because success with 18 reactors seemed to be sufficient. IH personnel filmed the entire test and collected data to confirm the measurements. While there is always uncertainty about any single test because of questions about measurement, the results of the 24 hour test broadly were compelling. Rossi also operated several

other reactors after the test ended, for shorter periods of time, with good results. The Penon test report is attached as Exhibit F.

When JT Vaughn arrived in Ferrara for the April test, Rossi gave him a draft of an article by a group of professors who performed two prior tests on high-temperature E-Cats which were very different from the steam reactors in the 1 MW plant. Rossi had mentioned the tests previously, and he indicated the results were likely to be good, although he did not have the actual data. The article described a December 2012 test in Bologna, Italy and a March 2013 test in Ferrara, Italy, using devices capable of achieving temperatures over 700 degrees Celsius, which is much higher than the older technology 1 MW plant. The report by the professors, attached here as Exhibit A, increased the IH management team's confidence in the technology and willingness to accommodate Rossi's request to operate only 18 reactors for the test.

After the test, Rossi closed his operation in Italy and moved permanently to Florida, where he had been spending half his time before. He shipped the 1 MW plant and all the contents of his Ferrara facility to a laboratory facility IH established near Research Triangle Park in North Carolina. Most of the equipment was in North Carolina by August 2013. Immediately, he began a testing and development process intended to create a new type of reactor that would be operated for a minimum one month test, overseen by the same group of professors who managed the December 2012 and March 2013 tests. This test, to be sponsored by the Swedish Royal Academy of sciences, was planned for December 2013, either in Europe or in the IH facility in North Carolina.

For four months ending in December 2013, IH personnel built perhaps 20 different reactors to Rossi's specifications, each with a different design. He operated each one to the point of destruction, usually due to electrical failures, although sometimes due to melting of the containment cylinders. The devices never showed evidence of significant radiation, as measured by Geiger counters and neutron detectors, while they operated or after they failed. While some reactors appeared to produce excess energy, others did not, and in any event IH was not sufficiently confident of its ability to measure energy output to form conclusions about reactor performance. Rossi was extremely confident throughout, and he did not seem to care about absolute energy measurement, but only relative performance of one design compared to another. Rossi's thermal measurement methods could determine whether one device outperformed another (as long as both were made of the same material), so he could tell if he was making progress even if one could not measure the COP of the machines accurately.

In December, Rossi finalized the specification for the device to be tested, and IH produced a number of them and shipped them to the test site, along with an electrical control system built by IH. With IH's agreement, Rossi chose not to hold the test in North Carolina. It would have been inconvenient for the professors, all of whom are from Europe, who wanted to be present for much of the 30 day test. The most prominent of the professors, Sven Kullander from Sweden, was undergoing cancer treatments and could not travel to North Carolina. Rossi found an industrial site in Lugano, Switzerland where they could operate the test reasonably conveniently. After this decision was made, Kullander died unexpectedly from a heart attack, perhaps associated with his treatments. While this took away an important reason for holding the test in Europe, IH management still felt this was the best location. IH did not want to be associated with the test, because it could have affected the appearance of independence. And, it would be best for as many outsiders to spend as much time at the test site as possible.

IH shipped the devices and equipment to Lugano in January 2014, but the test did not start until the end of February due to logistics and set up time. The first reactor failed after a day of operation due to a crack in the ceramic material, which was suspended between two supports. Rossi replaced it with a backup reactor, along with another supporting bracket so it would be less inclined to fail. The reactor was operated without fuel initially so the professors could assess its thermal characteristics and calibrate their equipment. Then it was fueled and operated at a moderate power input for 10 days. At that point, the power was increased substantially, and it operated at that level until the professors stopped the test after 32 days. IH personnel made a total of 5 trips to the test site and met all of the professors at one time or another. They were positive about the test after the first few days of operation, and they made comments about observing history being made. However, they provided no data or actual results to Rossi or to IH at that time.

The equipment was returned to North Carolina in April, and the professors began the process of aggregating their data and preparing their report. IH received a draft copy of the report in June, showing a COP of 3.1 at the lower power setting, and 3.6 at the higher setting. The analysis seemed thorough, and it addressed several criticisms from prior reports. The description of their instrument calibration process was impressive. Also, they did not fluctuate the power input, which Rossi believes substantially increases COP. They held it at a constant level, aside from the one power increase after the tenth day, because changing it would complicate their measurements. The thermal infrared camera settings vary with temperature, so if the temperature was changing in cyclical pattern, the camera settings would have to be changing constantly.

Rossi returned to the U.S. after the test, and he has begun to focus on the 1 MW plant. For example, the 1 MW plant's control system was redesigned for automated operation, such that each of the 107 reactors will be controlled based on temperature and water flows. Currently, it has no automated control systems, so each device must be manually adjusted. Rossi wants to operate it on a continuous basis, for a commercial customer. Rossi has reached a tentative agreement with Johnson Matthey, Plc, a U.K. company in the catalyst business, to use steam process heat from the plant for a two-year period beginning in September, in exchange for a payment of \$1,000 per day. Rossi and Fulvio Fabiani would manage the plant, to the extent it needs it. The Johnson Matthey facility is in Miami, FL.

Meanwhile, Industrial Heat personnel continue to meet with other industry participants, contemplating a technology rollup in the LENR sector. A list of LENR thought leaders and inventors that have been contacted by IH or Deep River Ventures, acting for IH, is included with this Memorandum as Exhibit C.

Since October 2012, IH, directly or through IPH, has invested over \$20 million, most of which has gone directly to Rossi and his partner, AmpEnergo, Inc., either for the purchase of rights to Rossi's LENR technology or for the purchase of prototype reactors. The remaining portion has been used to support Rossi's research and development activities over the preceding 18 months, as well as to fund efforts to invent related, supporting technologies and to capture and file for patents on core intellectual property. Some of IH's funding has also been used to identify other potentially promising LENR technologies as noted above.

Industrial Heat, through IPH, is now raising additional capital in order to: 1) retain premier consulting and investment banking firms to assist in identifying commercialization partners and to provide advice concerning the strategy for building and capitalizing the business, 2) invest in further R&D to develop core technology as well as ancillary, related technology, 3) acquire other LENR technologies and invest in other LENR startups and 4) return initial capital to seed investors. This will allow Industrial Heat to develop a unique knowledge base and intellectual property portfolio in the LENR sector. This will prove advantageous as IH begins to enter joint development and licensing agreements with commercialization partners.

B. E-Cat Independent Test Results

In December 2012, Guiseppe Levi, of Bologna University, and Evelyn Foschi, an independent consultant based in Bologna, Italy, conducted a 96-hour test of an E-Cat reactor. In March 2013, Torbjörn Hartman, Bo Höistad, Roland Pettersson and Lars Tegnér, all of Uppsala University, and Hano Essén of the Royal Institute of Technology in Stockholm, Sweden, joined Levi and Foschi to conduct a similar 116-hour test. Collectively, the team published a report of their findings from both the December and March tests, revealing a COP of approximately 5.6 in the December test and a COP of approximately 2.6 in the March test (a copy of the published report concerning these tests is attached as Exhibit A).

Moreover, IH received an unofficial analysis of the fuel used in the March test which showed a change in isotope concentration in the nickel powder. This is encouraging if it is accurate, because an isotope change would indicate that some kind of nuclear reaction had occurred.

In March 2014, the same committee conducted a follow-up test, this time on a slightly different version of the high-temperature reactor. Importantly, however, the test was 32-days—much longer than any previous test. The duration was extended in order to definitively rule out the possibility of a chemical reaction. While the report has not yet been published, a preliminary draft indicates a COP of approximately 3.1 to 3.6. A copy of the preliminary draft report of the March 2014 test is attached as Exhibit B.

In addition, the March, 2014 test detected slightly elevated neutron levels at a 50cm range from the E-Cat (see pages 33-34 of the preliminary draft report, Exhibit B). However, these radiation levels were within one standard deviation of the background level, so they do not appear to be dangerous.

These results, if accurate and replicable, mean this technology could have the potential to significantly decrease the environmental impact of energy production in an extremely cost competitive manner. Based on these results, the technology appears to be able to produce substantial energy without generating any emissions or radioactive waste, all while consuming minute amounts of raw material (primarily nickel and hydrogen). The specific energy density of the technology appears to be well beyond that of any conventional source of energy. In fact, its energy density appears to be close to that of radioactive fuels used in nuclear reactors, such as uranium-235. The preliminary draft report from the March 2014 test concludes:

The quantity of heat emitted constantly by the reactor and the length of time during which the reactor was operating are such as to rule out, beyond any reasonable doubt, a chemical reaction as underlying its operation. This is emphasized by the fact that we stand considerably more than 10 sigma

from the region of the Ragone plot occupied by conventional energy sources. We are therefore certainly dealing with a new source of energy.

C. E-Cat Licensing Agreement Overview

In the fall of 2012, Industrial Heat entered into a licensing agreement with Andrea Rossi/Leonardo Corporation and AmpEnergio, Inc. (a full copy, including amendments, as well as the "Contribution Agreement" between AEG and IH and its amendments, is attached as Exhibit D). This license agreement was subsequently assigned to IPH. The license provides Industrial Heat with the rights to all intellectual property required to manufacture, distribute, operate and service the E-Cat in North America, South America, Central America and the Caribbean, China, Russia, Saudi Arabia and the United Arab Emirates, along with the right of first offer with respect to any new licenses offered outside this territory.

The licensing agreement contemplates a total capital outlay of about \$150 million, paid over three installments, described below:

- 1) **Installment I:** The initial installment was paid in October 2012, and totaled \$2 million, of which \$500,000 went to AmpEnergio ("AEG") with the remaining \$1.5 million going to Rossi's company, Leonardo Corporation for the purchase of a 1 MW LENR device. AEG is a long-time partner of Rossi and, in exchange for funding Rossi's research over the years and connecting Rossi to the investors behind Industrial Heat, AEG is entitled to approximately 1/3 of the total proceeds that would have otherwise been payable from the licensing agreement. No IP or trade secrets were provided to Industrial Heat after making the initial payment of \$2 million. Instead, Rossi used these funds to further develop the technology and to build the 1MW LENR device, which he tested in Ferrara, Italy in April-May 2013.
- 2) **Installment II:** In May, 2013, Rossi generally achieved the performance milestones required in section 3.2(b) of the licensing agreement by operating a portion of the 1 MW device in Ferrara, in a test overseen and certified by a validation consultant. Rossi requested that he operate only a portion of the 1 MW plant, because he said he was unable to get noise permits allowing the operation of a generator large enough to power the entire 1 MW E-Cat plant. IH consented, and he operated 18 of the 107 reactors in the plant. Those 18 produced a COP of 10.85, according to Fabio Penon, the certification engineer whose data and process were reviewed by Industrial Heat. Consequently, pursuant to the terms of the agreement with Rossi, Industrial Heat paid an additional \$10 million in May, 2013. Payment of the \$10 million triggered a complete intellectual property disclosure from Rossi, which occurred in June 2013. This event also triggered an additional obligation to AEG, which after various modifications resulted in IH paying AEG \$4.2 million in cash plus \$505,050 in the form of a 1% equity membership interest in Industrial Heat, LLC.
- 3) **Installment III:** Pursuant to section 5 of the License Agreement, if Rossi is able to successfully operate a 1 MW plant at a COP of 4 or greater for 350 out of 400 consecutive days after delivery of the plant to IH, and the plant operates at the level at which validation was achieved in the April-May 2013 Ferrara test, he would be entitled to receive \$89 million.

If, however, the COP was greater than 4, but less than the validation level, the payment would be decreased proportionally. If the COP is less than 4, Industrial Heat would not owe Rossi any additional money nor would he be entitled to an equity share in Industrial Heat.

Rossi has not operated the 1 MW plant since it left Ferrara in 2013, and only recently has he begun to focus on preparing the 1 MW plant for operation. The 1 MW unit will not be ready to operate until September 2014 or later, according to Rossi.

At the appropriate time, Industrial Heat intends to acquire the rights to the E-Cat in territories it does not currently own, such as Africa, Europe and Australia. Rossi has indicated a strong desire to sell these rights to Industrial Heat, because he does not want to create and operate a business himself. IH has the right to acquire them if he offers them for sale to anyone else.

D. Industrial Heat Intellectual Property

Since the E-Cat trade secrets and related intellectual property were disclosed to Industrial Heat in the spring of 2013, IH has focused on identifying and protecting core intellectual property associated with the E-Cat fuel and the reactor designs. This work has resulted in a small number of potentially high value patent applications filed by Industrial Heat. Filing these patent applications has entailed a significant amount of time and relationship management with Rossi. Although not required by the agreements, IH management prefers that Rossi be involved in IP filing decisions related to anything he has invented or co-invented. These and other filings are listed in Exhibit E, which provides a list of Industrial Heat's filed intellectual property to-date. Consistent with IH's intellectual property strategy, final patents will be issued to and owned by IPH.

Going forward, IH intends to continue to expand upon its initial patent filings. IH believes valuable LENR intellectual property, beyond the core technology, lies in controls, packaging, manufacturing, storage, monitoring, safety, security, distribution, and user interaction technologies. IH has identified over 80 concepts in these areas, a significant number of which management feels can be developed into potentially high value patents. In order to capture the value of this intellectual property, IH will need to develop these concepts further, including building prototypes or performing technical tests. IH will also need to refine, test and develop its core technology further in order to capture as much potential IP associated with the fuel and the reactor as possible. This work could be accomplished by: 1) contracting with outside research and development firms; and/or 2) entering into joint venture relationships with larger corporate partners; and/or 3) staffing and outfitting an internal R&D arm.

Industrial Heat is working with Deep River Ventures ("DRV"), an intellectual property consulting firm, to identify and retain valuable intellectual property in the LENR sector. One of the principals of DRV, Paul Morris, is a prolific inventor with over 60 issued patents and an additional 250 pending patents. Morris has a long standing track record of generating high value IP—his portfolio to-date has generated over \$370 million in IP licensing and royalty revenues across a broad range of products, services and features. Morris believes inventing is an acquired skill that can be taught and developed when working with the right types of experts in any given field. DRV will work with Industrial Heat inventors as well as its contracted R&D firms to train and develop them in order to increase the quality and quantity of assets in Industrial Heat's IP portfolio.

In all cases, IH will continue doing internal R&D, because management intends to support Rossi in his future work. This is prudent for relationship reasons, but also because he continues to create new ideas, some of which could be important. However, IH believes that most of the development work will be accomplished through outside firms. As a practical matter, it seems unlikely that IH could create the kind of team needed to implement this technology fully, across all of its applications, many of which cannot be imagined at this time. So, management's current thinking is that the immediate R&D decisions relate to choosing and negotiating relationships with outside entities, and evaluating whether to staff internally beyond the minimum needed to support Rossi.

E. LENR Sector Strategy

Redacted - Other Investment

Redacted - Other Investment

Redacted - Other Investment

F. Market for Heat and Electricity

In 2010, the world consumed the energy equivalent of 8,677 million tons of oil.¹ Global energy demand is estimated to increase 1.6% per year through 2035.² According to the International Energy Agency (IEA), heat and electricity represent 64% of the world's final energy consumption (i.e., energy that is supplied to the consumer for all final energy uses such as heating, cooling and lighting).³

While it is difficult to know the monetary value of global energy consumed, the crude oil equivalent in 2010 would have totaled more than \$5.85 trillion at \$95 per barrel, its kilowatt-hour equivalent would have totaled more than \$3.5 trillion at \$0.10/kWh and a 33% conversion efficiency, and its natural gas equivalent would have totaled more than \$1.5 trillion at a price of \$4.50 per million BTU's.

At 64% of worldwide energy consumption, the global market for heat and electricity would total nearly \$1 trillion if supplied entirely by natural gas, and more than \$3.7 trillion if supplied by oil. This does not include the market for capital equipment associated with producing this heat.

Below is an overview of the market for heat and electricity supplied by only coal, oil and natural gas in China, the United States and Russia—estimated to be more than \$358 billion per year.

All values in USD Millions

China, US and Russia: Market for Heat and Electricity*

Country	Electricity**	Heat***	Combined Total
China	143,000	13,000	156,000
US	112,000	2,000	114,000
Russia	62,000	26,000	88,000
Total	\$ 317,000	\$ 41,000	\$ 358,000

**Based on the value of heat and electricity consumed from coal, oil and natural gas sources. Does not include heat and electricity derived from nuclear, renewables, waste or other sources.*

***Assumes electricity at \$0.10/kWh, and values the assoc. thermal energy at 40% of the price of electricity.*

****Assumes coal at \$45/ton, oil at \$95/barrel, natural gas at \$4.50/Mcf.*

Source of primary data: International Energy Agency, www.iea.org, 2011 data

China: <http://www.iea.org/statistics/statisticsearch/report/?country=CHINA&year=2011&product=ElectricityandHeat>

US: <http://www.iea.org/statistics/statisticsearch/report/?country=USA&product=electricityandheat&year=Select>

Russia: <http://www.iea.org/statistics/statisticsearch/report/?country=RUSSIA&product=electricityandheat&year=2011>

¹ 2012 Key World Energy Statistics, International Energy Agency, pg. 28, <http://tinyurl.com/b6psbfj>

² International Energy Outlook 2011, US Energy Information Administration, September 2011, pg. 10 <http://www.eia.gov/forecasts/ieo/>

³ International Energy Agency website, <http://www.iea.org/topics/heat/>

If IH succeeds in commercializing a device that is capable of generating 4 times its electrical input energy, it will have created a technology that can displace traditional fuel sources in generating both heat and electricity without generating any emissions or creating any radioactive waste. In the US, China and Russia alone, such a technology would be entering a market worth more than \$350 billion/year.

Industrial Heat believes this initial addressable market size justifies a sector-based approach in the LENR field. The E-Cat may be ahead of the competition at this point, but it is important to invest in or acquire other LENR technologies and thereby diversify upside exposure, increase access to inventors and aggregate valuable LENR IP into Industrial Heat.

III. USE OF FUNDS

Industrial Heat is raising \$50 million of growth capital to cover operational, R&D and investment expenses over the next 12-18 months and to provide for the return of capital to certain seed investors. Capital will be used as follows:

1) G&A expenses: \$3.5 million

This includes costs such as office and laboratory rent, salaries, contractors, legal, accounting, equipment rental, lab and office supplies, travel, public relations and miscellaneous other expenses, such as insurance.

2) Strategy consulting: \$5 million

Industrial Heat intends to retain top consulting and investment banking firms to provide counsel on a range of matters, including but not limited to: a) a worldwide capitalization and go-to-market strategy, b) identifying and brokering joint development or licensing agreements with large, established technology partners (such as BAE, Boeing and Texas Instruments), c) international corporate structure.

3) Research & Development: \$10 million

Industrial Heat intends to work with outside R&D firms to conduct additional research and development around the fuel and the reactor. In addition, IH intends to contract out the development of IP related to the core technology, such as: controls, packaging, manufacturing, storage, monitoring, safety, security, distribution, and user interaction technologies. In addition to using outside firms, IH intends to support the research and development activities of Andrea Rossi as well as other inventors, and also to retain some staff and facilities for internal research and development and testing.

4) Returning capital to early investors: \$15 million

Industrial Heat to date has been funded by a group of individual investors. These investors do not have long time horizons, if for no other reason than because of age—most are in their 60's or 70's. They are business friends of Tom Darden who supported IH because they were asked to, and because they understood there was a critical, high-risk moment when IH could capture Rossi's technology under acceptable terms, if the company had the necessary capital available to it. They also realized that inaction literally might deprive the world of the potential benefit of the

E-Cat technology, because it was not clear that Rossi would ever find a way to get the E-Cat to market on his own. Accordingly, management wants to return most or all of these investors' capital. They would retain equity in the business, although without any significant ongoing rights. The largest investor in Industrial Heat, Tom Darden, will leave all of his capital in IH, so he will not participate in the early investor return of capital.

5) LENR sector strategy: \$16.5 million

As outlined above, Industrial Heat sees significant value in pursuing a LENR sector strategy. Though IH was formed initially to invest in the E-Cat technology, management believes a prudent use of capital is to license or acquire other LENR IP and/or to acquire an equity interest in other LENR startups. Funding other LENR inventors increases IH's inventor-base and enhances its ability to streamline and organize the efficient generation of valuable LENR IP. Acquiring an equity interest in other LENR startups is less ideal but it still achieves diversification and increases upside exposure. More capital will be needed in the future to provide follow on investments and to invest in new opportunities, but \$16.5 million is sufficient to make a number of significant early commitments over the next year.

IV. RISK FACTORS

Lack of Operating History; Funding Risks

Industrial Heat⁴ is a newly formed entity with no operating history upon which to evaluate its likely performance. Industrial Heat is in a very early stage of development and it is not possible at this time to provide any projection or prediction of its financial performance. Industrial Heat's business plan is still being developed and is evolving. Although IH anticipates that it will be profitable if it is able to carry out its business objectives, Industrial Heat is also focused on positively impacting the world by providing an energy solution that will be significantly more cost effective and environmentally favorable than other sources. Investors in Industrial Heat should be similarly motivated. The IH business plan could include making the technology open source, such that much of the technology could be publicly available for further development and exploitation by third parties.

The assets of Industrial Heat are (1) the License Agreement with Leonardo Corporation ("Leonardo") and its sole shareholder, Dr. Andrea Rossi, pursuant to which IH purchased a 1 MW E-Cat plant as well as intellectual property associated with the E-Cat reaction, (2) a passive investment in an Redacted - Other Investment (3) a portfolio of intellectual property assets and contacts that have been developed by IH since its inception. There can be no assurance that IH will be able to commercialize any of its IP or that IH's targeted results will be attained. Additionally, significant capital will be required in order for the Companies to acquire and maintain the IP that it will need and then develop, manufacture, and commercialize the E-Cat technology and products. There can be no assurance that the Companies will be able to generate or raise the capital required to continue the rights under the License Agreement or to implement their business plan.

⁴ Please note that references in this Risk Factors section and elsewhere in this Memorandum to "Industrial Heat" or "IH" shall be deemed to include its subsidiary, IPH International B.V., as the context may require.

Industrial Heat's business plan may also include negotiating with other inventors and companies to obtain commercialization rights in other promising LENR technologies and/or making investments in such technologies, as well as developing and patenting IH's own proprietary intellectual property involving systems ancillary to the development of LENR. There can be no assurance that Industrial Heat will be successful in such endeavors.

Unproven Technology

Industrial Heat's business involves certain developing and unproven technologies. The technology that IH will attempt to commercialize is a form of low energy nuclear reaction ("LENR") technology. LENR technology has been rejected by some members of the mainstream scientific community because many experimental results could not be replicated consistently and reliably, and because there is no accepted theoretical model of these types of reactions. Although IH believes that the technology that has been licensed from Leonardo produces substantial excess energy, and although it has been independently tested and validated, the technology or its acceptance in the marketplace cannot be guaranteed. Previous testing of Leonardo's technology has had mixed results. Some tests have failed, while others have appeared to succeed. Despite the initial validation, there is no guarantee that the E-Cats will continue to operate at the specified levels, or at all.

Radiation

The inventor represents that both the fuel for the E-Cat and the remaining waste from producing energy in the E-Cat are not radioactive or otherwise harmful. According to the inventor, E-Cats produce energy in the form of radiation, either gamma rays or x-rays or both. This radiation is contained by the structure of the E-Cat, so it is not detected outside the reactor, or the levels are very low. However, if a reactor unit were to be opened while operating, either intentionally, by accident or due to a defect or explosion, it could emit harmful gamma rays or x-rays outside the device. In IH's limited experience, some reactors have melted or cracked open while operating, without any detected release of radiation. However, IH has not had the opportunity to study these reactions in detail, or the resulting waste, so the company cannot verify the extent of the risk that could be created by such an event, nor is it clear that the fuel and waste are never harmful.

Delivery of IP; IP Protection/Infringement

After Industrial Heat made its second payment to Leonardo Corp. in May 2013, Rossi delivered drawings, specifications and detailed technical information to designated IH personnel. This intellectual property, which IH has undertaken to protect with patent applications, is IPH's primary asset and the primary asset of the Companies. The E-Cat IP deliverables included books with the construction drawings and instructions necessary to manufacture the E-Cat, operate the E-Cat, manufacture the control systems and operate the control systems, one issued patent, and eight pending patent applications. The Companies cannot be certain that the E-Cat IP delivered by Rossi is complete or sufficient to enable the Companies to carry out their objectives.

Of the nine patents included in the original E-Cat IP disclosure, eight are pending applications and one has been issued. The patent applications filed by Rossi or IH since May 2013, all are pending. The issued patent was approved by the Italian Patent and Trademark Office on April 6, 2011, and is valid only in Italy. Italy is not within IPH's territory under the License Agreement. Under then-current Italian

law, the examination of the application was more formal and less technical than for the corresponding Patent Cooperation Treaty application. The United States is the only country within IH's territory under the License Agreement with pending patent applications. It should be noted that the United States Patent and Trademark Office has generally rejected patent applications for "cold fusion" technology on the basis that such devices do not work and the inventor is unable to establish the utility of the device. However, at least one US patent for LENR technology has been issued; a LENR patent was issued to George Miley in July 2012 (US Patent No. 8,227,020). It should be further noted that an application in 2008 to patent Dr. Rossi's device internationally had received an unfavorable preliminary report on patentability at the World Intellectual Property Organization from the European Patent Office, noting that the description of the device was based on "general statements and speculations" and citing "numerous deficiencies in both the description and in the evidence provided to support its feasibility" as well as incompatibilities with "generally accepted laws of physics and established theories." The patent application was published on October 15, 2009. The European Patent Office recently issued a LENR patent to Francesco Piantelli in January 2013 (EU Patent No. 2,368,252).

Industrial Heat believes that it has been given access to all pending patent applications included in the E-Cat IP or filed by Rossi afterwards. IH considers those that it has reviewed to be poorly written. IH has no assurances that the pending patent applications will be approved. Further, competitors in the LENR space may challenge the validity or scope of patents and other intellectual property in the E-Cat IP. IH does not currently know whether the E-Cat IP will infringe existing rights.

The success of Industrial Heat will depend in large part on learning and understanding the E-Cat IP and utilizing it as proprietary technology. IH will rely on various intellectual property rights, including patents, copyrights, trademarks and trade secrets, as well as confidentiality provisions and licensing arrangements, to establish its proprietary rights. IH may need to spend significant resources monitoring its intellectual property rights and may or may not be able to detect infringement by third parties. IH's competitive position may be harmed if it cannot detect infringement and enforce its intellectual property rights quickly or at all. In some circumstances, IH may choose not to pursue enforcement because an infringer has a dominant intellectual property position or for other business reasons. In addition, competitors might avoid infringement by designing around IH's intellectual property rights or by developing non-infringing competing technologies. Intellectual property rights and the ability of IH to enforce them may be unavailable or limited in some countries which could make it easier for competitors to capture market share and could result in lost revenues.

Global Risks

IH's territory under the License Agreement (the "Territory") includes North America, South America, Central America and the Caribbean, China, Russia, Saudi Arabia, and the United Arab Emirates. Additionally, the License Agreement requires that any new licenses outside the territory first must be offered to IPH. The ability of IH to operate in various countries may be adversely affected by a number of local influences, including political, economic, social and religious instability; inadequate investor protection; tax laws; changes in laws or regulations; international relations with other nations; natural disasters; corruption and military activity. The economies of some countries may differ from the economies of other countries in many respects, such as rate of growth, inflation, capital reinvestment, resource self-sufficiency, financial system stability, the national balance of payments position and

sensitivity to changes in global trade. The legal systems of some countries are still in early stages, making it more difficult to obtain and/or enforce judgments and take other legal action that may impact IH. Intellectual property rights and the ability to enforce them may be unavailable or limited in some countries where IH or its affiliates may have facilities or transact business.

Regulatory Matters

Industrial Heat is investigating existing laws and regulations that may impact IH's proposed operations in various countries. It is not yet known where IH will finally base its operations or what impact existing laws and regulations will have on the operations of IH. Because LENR technology is continuing to develop and is not in active use, it may not be subject to specific regulation in certain countries at this time; however, additional regulation may develop as the use of the technology increases. The adoption of any future U.S. federal, state, or foreign laws or implementing regulations imposing reporting or financial obligations on, or limiting or banning, LENR devices could make it more difficult for IH to operate and could have a material adverse effect on IH.

The operations outside the US of any company subject to US law that is included in the Industrial Heat group will require that company to comply with a number of US and international regulations. For example, operations in countries outside the US are subject to the Foreign Corrupt Practices Act (FCPA), which prohibits US companies or their agents and employees from providing anything of value to a foreign official for the purposes of influencing any act or decision of these individuals in their official capacity to help obtain or retain business, direct business to any person or corporate entity, or obtain any unfair advantage. The activities of IH may create the risk of unauthorized payments or offers of payments by one of its employees, agents, or joint venture partners that could be in violation of the FCPA, even though these parties are not always subject to IH's control. Industrial Heat will have internal control policies and procedures as appropriate with respect to the FCPA. Allegations of violations of applicable anti-corruption laws, including the FCPA, may result in internal, independent, or government investigations. Violations of the FCPA may result in severe criminal or civil sanctions, and the Companies may be subject to other liabilities, which could have a material adverse effect on its business, operations and financial condition. In addition, investigations by governmental authorities as well as legal, social, economic, and political issues in these countries could have a material adverse effect on IH's business and results of operations. IH is also subject to the risks that any employees, joint venture partners, and agents outside of the US may fail to comply with other applicable laws.

Competition

LENR technology is not yet commercially available. However, similar technology is under development by others and a competing technology could become commercially available prior to IH being able to make the E-Cat technology or other LENR technology commercially available. Further, competing technologies could be superior to the technology being licensed to and developed by IH and existing or later obtained patents on competing technology could limit IH's ability to compete. Competitors of the Companies may have greater financial resources than IH, thus giving them a competitive advantage. The ability of IH's competitors to acquire or develop and introduce new technologies, products and services more quickly than IH may adversely affect IH's competitive position. Further, after IH has incurred substantial costs to develop the E-Cat technology and products or other LENR technology and products, one or more of such products could become obsolete prior to it being

made available to consumers. New technologies could also create new competitors for IH. In addition, the uncertainty of the costs for obtaining necessary intellectual property rights from third parties could impact IH's ability to respond to existing competing technologies or to technological advances in a timely manner. Further, changes in the regulatory and legislative environments in the Territory may result in changes to the competitive landscape.

Dependence on Key Personnel

The future success of Industrial Heat is heavily dependent upon one key individual, Dr. Andrea Rossi, and if the services of such individual were no longer to be available to IH, its future success would likely be materially and adversely affected. The License Agreement requires Dr. Rossi to provide ongoing training and support to IH for a period of not less than twelve months following the successful 24 hour validation. Further, IH and Dr. Rossi anticipate that IH will engage Dr. Rossi as its chief scientist. However, IH cannot be certain that Dr. Rossi will be available or willing to provide services as contemplated by the License Agreement or as otherwise requested. Additionally, some have questioned Dr. Rossi's credibility. IH is informed and believes that Dr. Rossi has been convicted of and imprisoned in Italy for tax crimes, and has been acquitted of other charges. Critics of Dr. Rossi have accused him of fraud, including deceptive actions in connection with past demonstrations of the E-Cat. IH attempted to lessen these risks by requiring validation of the E-Cat (which was achieved) by a validation agent jointly agreed upon by IH and Leonardo and by requiring that the documents evidencing the E-Cat IP (exclusive of the catalyzer formula) be delivered to any combination of one or more United States Patent attorneys and a nuclear engineer (in each case, who were not an affiliate of Rossi, but were selected by Leonardo) for verification prior to payment being made to Leonardo following a successful 24 hour validation. IH is also informed that Dr. Rossi has previously been associated with Dr. Piantelli (through a joint association with Sergio Focardi) and with the company Defkalion Green Technologies ("Defkalion"), both potential competitors of IH. At one point, Defkalion claimed to have the formula for the proprietary E-Cat LT catalyzer; Defkalion subsequently withdrew that claim and has not publicly produced evidence of a functioning LENR device. However, it appears that Defkalion continues to work on developing a functioning LENR device. IH cannot express an opinion as to whether Defkalion will or will not be successful with its efforts. If Defkalion were to succeed in developing a functioning LENR device, such a result could have an adverse impact upon IH and its proposed operations.

The success of Industrial Heat will also be substantially dependent on any other inventors with which IH subsequently enters into agreements or in whose companies IH invests, as well as the management team's ability to implement the business strategy of IH. Should one or more of such inventors or the individuals who comprise the management team become incapacitated or in some other way cease to participate in IH, its performance could be adversely affected. There can be no assurance that any of these individuals will continue to be affiliated with IH throughout its existence.

Availability of Debt

Given the immaturity of the LENR technology and the other risk associated with LENR, it is not known if banks or other sources of capital will provide debt financing to IH or if the terms of any such financing will be commercially reasonable.

No Market for Securities

No securities to be issued by IH have been registered under the securities laws of any country or jurisdiction, and, therefore, cannot be sold unless they are subsequently registered under applicable securities laws or an exemption from registration is available. It is not contemplated that registration under any such securities laws will ever be effected. There is no public market for the securities of IH and one is not expected to develop. Each investor will be required to represent that it is a permitted investor under applicable securities laws and that it is acquiring any securities of IH for investment purposes and not with a view to resale or distribution and that it will only sell and transfer such securities to a permitted investor under applicable securities laws and in a manner permitted by and consistent with such laws. Investors must be prepared to bear the risks of owning securities of IH for an extended period of time.

Tax Considerations

IPH is organized as a Dutch B.V. and IH is not undertaking in this Memorandum to address the tax consequences of an investment in IPH securities. Each prospective investor is urged to consult its own tax adviser as to the tax consequences of an investment in the securities of IPH.

Liability for Return of Distributions

Any investor's capital contributions to IPH are susceptible to risk of loss as a result of any liability of IPH. If IPH is otherwise unable to meet its obligations, investors in IPH may, under applicable law, be obligated to return, with interest, distributions previously received by them to fund IPH's obligations. In addition, an investor may be liable under applicable bankruptcy or insolvency laws to return a distribution made during IPH's insolvency.

Availability of Insurance against Certain Catastrophic Losses

Certain losses and events of a catastrophic nature, such as wars, earthquakes, terrorist attacks or other similar events, may be either uninsurable or insurable at such high rates that to maintain such coverage would cause an adverse impact on the related assets. In general, losses related to terrorism are becoming harder and more expensive to insure against. Some insurers are excluding terrorism coverage from their all-risk policies. In some cases, the insurers are offering significantly limited coverage against terrorist acts for additional premiums, which can greatly increase the total costs of casualty insurance. As a result, all assets of Industrial Heat may not be insured against terrorism. If a major uninsured loss occurs, the Companies could lose both invested capital in and anticipated profits related to the affected assets.

V. EXHIBITS

- A. Published report concerning December 2012 and March 2013 test of E-Cat reactor: *"Indication of anomalous heat energy production in a reactor device containing hydrogen loaded nickel powder."*
- B. Preliminary draft report concerning March 2014 test of E-Cat reactor: *"Report on the Lugano Test—Preliminary Draft"*

- C. Industrial Heat LENR Contacts
- D. E-Cat licensing agreement and related documentation
- E. Intellectual property filed by Industrial Heat
- F. Report by Engineer Fabio Penon on the May 2013 Ferrara test

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Tuesday, May 10, 2016 5:06 PM
To: crjpace; Christopher M Lomax
Subject: Fwd: Test process

----- Forwarded message -----

From: con333@libero.it <con333@libero.it>
Date: Wed, Apr 24, 2013 at 3:45 AM
Subject: R: Test process
To: tdarden@industrialheat.co
Cc: JT Vaughn <jvaughn@industrialheat.co>, John Mazzarino <jmazzarino@industrialheat.co>

Dear Tom,
Please find in capital letters my answers along your text:

>----Messaggio originale----

>Da: tdarden@industrialheat.co
>Data: 24/04/2013 6.18
>A: "Dr. Andrea Rossi" <con333@libero.it>
>Cc: "JT Vaughn" <jvaughn@industrialheat.co>, "John Mazzarino" <jmazzarino@industrialheat.co>
>Ogg: Test process

>
>Andrea:
>

>I have some thoughts about the test and some ideas an how we could improve its significance or meaning to the outside world, such as investors and potential customers. In other words, these ideas would improve our credibility with outsiders. I do agree with you that the prior test with the professors is important, probably more so than our test, and also that operating only a portion of the plant is not technically or theoretically any different than operating the whole plant.

OK

>
>Here are my thoughts. First, as we indicated, we can accept Fabio Penon as the ERV, instead of BV. We also can make our payment based on his report of the results from only a portion of the reactors, eg 20% or 25%. Said another way, we will agree to do a test of only those reactors constituting the allowable percentage of the plant (eg 35kw/210kw instead of 165kw/1mw). We would like to get details about how this will work: how many reactors, how will you decide which ones, etc?
VERY GOOD: WE WILL OPERATE 30 REACTORS, NO PREFERENCE ABOUT WHICH
>

>In order to improve the credibility of the test with outsiders, we would like to do something else. We have two problems with the current situation, when we

compare it to what we thought was going to happen and what we represented to others. First, the ERV is an individual instead of a large company, and second, the test is of only a portion of 1mw.

>
>I would like to add someone else to the testing team, from one of the big testing companies (if we can get them--we are calling them now). We have spoken to SGS and will speak soon to BV and TUV. They say they might be able to furnish someone who will observe the test and offer an opinion about it. THIS CREATES A BIG PROBLEM, BECAUSE IN CASE OF DISAGREEMENT WE CAN HAVE TROUBLES. YOU HAVE SEEN THAT PENON IS A CERTIFIED PROFESSIONAL, AND ALL HE HAS TO DO IS TO MEASURE A FLOW, AN ELECTRICITY CONSUME, A TEMPERATURE, WITH CERTIFIED INSTRUMENTATION. ANOTHER GUY WE DO NOT KNOW POSES MANY PROBLEMS, AND I EXPLAINED THEM IN MY FIRST EMAIL ABOUT THIS ISSUE; FOR EXAMPLE, HE COULD ASK TO LOOK AT PARTICULARS WE DEEM INDUSTRIAL SECRETS, AT THAT POINT WHAT HAPPENS? WE TRUST IN PENON BECAUSE HE ALREADY PARTICIPATED TO INDIPENDENT TESTS ,

>
>We are not doing this for purposes of deciding whether to pay--that will be decided by Penon, the ERV. But we want a report from one of these companies that we can use to give to customers or investors. So, we want to have someone at the test, for this reason. I CAN ONLY REPEAT WHAT I WROTE ALREADY IN MY FORMER EMAILS AND HERE ABOVE.

>
>Second, we would like to run a test of another 200kw of the plant, maybe the next day or the day before the Penon test. Can we test another set of about 25 reactors, the day before our Penon test or the day after? If we tested 40% of 1 mw, and If we did thIs in two tests with two different testing entities (Penon and SGS, for example), that would be highly credible. THIS IS NOT A PROBLEM. WE CAN MAKE 24 HOURS WITH A SET OF REACTORS AND OTHER 24 HOURS WITH ANOTHER SET

>
>So, we would like to consider having someone there from one of the big companies (TUV, BV or SGS) and we would like to test another 20% of the unit for a second day, either before or after the day of the Penon test. SO, TO MAKE A DOUBLE TEST WITH 2 DIFFERENT SERIES OF REACTORS IS NOT A PROBLEM, AS FOR THE OTHER ISSUE , AS I SAID, YOU HAVE AT YOUR DISPOSITION THE REPORT OF THE THIRD INDIPENDENT PARTY WHICH WILL BECOME OFFICIAL WITHIN A COUPLE OF DAYS.

WARMEST REGARDS,
ANDREA

>
>Please offer your thoughts about these ideas.
>
>Thanks very much.
>Tom Darden
>Industrial Heat
>919 522 4095 m
>tdarden@industrialheat.co

--

JT Vaughn

Industrial Heat

p: 919.670.2811

c: jvaughn@industrialheat.co

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Thursday, September 11, 2014 6:06 PM
To: John Mazzarino; Tom Darden
Subject: IH Timeline -- please help fill-in / edit as necessary

TD/JM: below are some timeline highlights that come to mind, but please edit and/or add others as you see fit.

2012

June 22nd: Tom Darden meets Andrea Rossi for the first time. Shortly after this meeting, Rossi proposes an agreement to allow the principals of Cherokee to license his technology. Miami, Florida

October 24th: Industrial Heat, LLC ("IH") is incorporated in the state of Delaware.

October 26th: Rossi, AmpEnergo (Rossi's partners) and Industrial Heat ("IH") sign licensing agreement and IH makes an initial payment of \$1.5M to Rossi for a 1MW plant, with an additional \$500k to AmpEnergo. Raleigh, North Carolina


November 20th: Rossi conducts a test of the high temperature E-Cat for Giuseppe Levi, a professor at Bologna, University and Evelyn Foschi, a Bologna-based physics consultant. The device overheats and self destructs (stainless steel core melts). Ferrara, Italy

November 27th-28th: John Mazzarino and JT Vaughn visit Rossi's facility in Ferrara, Italy. Rossi safely operates both the high temperature E-Cat and the low temperature, water-based E-Cat.

December 13th-17th: Rossi conducts another test for Giuseppe Levi and Evelyn Foschi. The device is operated at a relatively moderate temperature (max of about 496C); the test lasts 96-hours and results in a COP of 5.6. Ferrara, Italy

2013

February 19th: IH makes a \$300k convertible debt investment in Brillouin, through a subsidiary called New Heat, LLC.

March 8th: In an effort to begin building more relationships throughout the LENR sector, Tom Darden visits Francesco Piantelli, a prominent LENR inventor who, like Rossi, was associated with Sergio Focardi. , Italy.

March, 18th-23rd: Rossi conducts a 116-hour test for a larger independent committee of both Swedish and Italian experts, including Levi and Foschi. Max operating temperature is reported at about 335C; the test lasts 116-hours and results in a COP of 2.6. Ferrara, Italy

April 28th: JT Vaughn arrives to Ferrara, Italy and Rossi provides him a pre-release copy of the independent report concerning the March 2013 and December 2012 tests.

April 29th: IH assigns E-Cat licensing agreement to its Dutch subsidiary, IPH International, B.V.

April 29th - May 2nd: Rossi performs a 24-hour test of 18 water based E-Cat units, followed by a 3-hour test of an additional 18 units of the same type, followed by an 11.5-hour test of a high temperature E-Cat. Fabio Penon reports significant COPs from each test. This performance triggers additional payment obligations to Rossi (\$10M) and AmpEnergio (\$5M). Ferrara, Italy

May 2nd: IH files provisional patent application, USPTO number 61/818,553, "Heat Energy Production Device and Related Methods."

May 3rd: IH files provisional patent application, USPTO number 61/819,058, "Exemplary Devices and Methods for Generating Heat."

May 10th: IH files provisional patent application, USPTO number 61/821,914, "Novel Methods and Devices for Use in Generating Useful Heat."

June [REDACTED]: Rossi meets with IH in Raleigh, NC to transfer all intellectual property. Simultaneously, his \$10M payment is released from escrow.

July 21-27th: Deep River Ventures ("DRV"), on behalf of IH, attends the 18th bi-annual International Conference on Cold Fusion at the University of Missouri. Numerous industry contacts are initiated and DRV begins building relationships with other LENR inventors. Columbia, Missouri

August 13th: IH fully satisfies its remaining payment obligation to AmpEnergio, based on the April 29th - May 2nd test.

August 15th: E-Cat 1MW unit arrives to IH facility in Raleigh, NC.

September - December: Rossi conducts numerous tests on various new reactor designs, often to destruction. In the process, the IH team learns how to construct the reactors and begins improving some design aspects of the reactor's heating component. Raleigh, NC

2014

January - February: Rossi and IH team prepare the final design of the reactor to be used in an upcoming 1-month test, to take place in Lugano, Switzerland. The IH team makes four such reactors and ships them to the testing site in Lugano.

February 21: IH files two provisional patent applications, USPTO numbers 61/943,016 and 61/943,026, both titled, "Energy-Producing Reaction Devices and Related Methods."

February 26th - March 29th: The committee of Swedish and Italian experts conduct a test of a high temperature E-Cat. IH representatives, including Tom Darden, John Mazzarino and JT Vaughn stop by on various different occasions during the course of the test. Lugano, Switzerland

May 2nd: IH files non-provisional utility patent application, USPTO number 14/262,740; WPO number PCT/US2014/35588, "Devices and Methods for Heat Generation,"

May - September: Rossi begins working on the 1MW unit to prepare it to operate on a continuous basis for 350-days, per the terms of the agreement with IH. Meanwhile, IH and DRV begin actively meeting with various other LENR inventors, including: Chris Cooper, Dennis Letts, Dennis Cravens, Ed Storms, Tadahiko Mizuno,

Curt Brown, George Miley, Mike McKubre, Trevor Dardik and Tony Lagatta. In parallel, IH is approached by two Fortune 250 companies and begins to discuss potential joint technology development and commercialization strategies.

--

JT Vaughn
Industrial Heat
jvaughn@industrialheat.co

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From: Andrea Rossi <ar.123@mail.com>
Sent: Tuesday, February 10, 2015 4:41 PM
To: fabiopenon@iol.it
Cc: tdarden@industrialheat.co
Subject: Re: Tests plan

Thank you, Eng. Penon:
We wait fot you on February 16th in Miami.
Everything is ready.
Warm Regards,
Andrea Rossi

Sent: Tuesday, February 10, 2015 at 9:18 PM
From: "fabiopenon@iol.it" <fabiopenon@iol.it>
To: ar.123@mail.com, tdarden@industrialheat.co
Subject: Tests plan

Dear Sirs,

in the Annex you may find the report 'E-Cat MW1 Energy Plant in Miami: Tests plan', concluding the first module (see proposal E-Cat MW1 Energy Plant in Miami: evaluation of the energy multiple')
I am at your disposal for any clarifications.

Sincerely

Fabio Penon

From: Andrea Rossi <ar.123@mail.com>
Sent: Thursday, February 19, 2015 12:01 AM
To: Tom Darden
Cc: fabiopenon@iol.it; jvaughn@industrialheat.co;
tdameron@industrialheat.co
Subject: Re: Tests plan

Thank you Tom: your congratulations are very important for us.

Warmest Regards,

Andrea.

p.s. I am in the plant (it's midnight by the plant, how romantic!) and all is going on well. Tomorrow Industrial heat will supply the first MW to JM.

Sent: Thursday, February 19, 2015 at 4:20 AM
From: "Tom Darden" <tdarden@industrialheat.co>
To: "Andrea Rossi" <ar.123@mail.com>
Cc: fabiopenon@iol.it, jvaughn@industrialheat.co, tdameron@industrialheat.co
Subject: Re: Tests plan

Congrats on the startup! This demonstration will have a great impact, beginning in about a month when we have the visitor from overseas!

Tom Darden
919 522 4095 m

From: Andrea Rossi
Sent: Wednesday, February 18, 2015 8:36 PM
To: Tom Darden
Cc: fabiopenon@iol.it; jvaughn@industrialheat.co; tdameron@industrialheat.co
Subject: Re: Tests plan

Hi Tom!

Ing. Penon is gone, the plant has been started, We are slowly increasing the temperature, will arrive at full regime tomorrow.

Fulvio and I are here in the plant right now.

So far so good.

Since Ing. Penon is now embarking on an airoplane and cannot answer to you, I can answer to your email on the base of the work made during his permanence here in the last three days.

The temperature in the steam pipe, as you correctly remember, is taken in two positions by means of two thermocouples that have been brought and positioned today by Ing. Penon. Also the temperature of the water in the tank inside the container to feed the pumps is measured by two thermocouples brought and installed under the direction of Ing. Penon. Also the pressure of the steam is measured with two instruments brought by Ing. Penon.

All those instruments for the measurement of temperature of the steam, of the pressure of the steam and of temperature of the water in the water tank inside the container are connected with the computer of property of Ing. Penon, that he brought here and registers the data 24 hours per day, as well as with the control system of ours. Obviously Penon will consider for his calculations only the data registered by his computer, but we can compare the data that he will find with the data that we will find.

I think now he is embarking on the airoplane (I left him at the airport at 7 p.m.), suppose he will be able to answer you tomorrow.

He reads in copy this message of mine.

Warmest Regards to all,

Andrea

Sent: Thursday, February 19, 2015 at 2:03 AM
From: "Tom Darden" <tdarden@industrialheat.co>
To: fabiopenon@iol.it
Cc: ar.123@mail.com, jvaughn@industrialheat.co, tdameron@industrialheat.co
Subject: Re: Tests plan

Let's make sure there is more than one way to measure the temperature in that pipe. If I recall correctly there were two or more in Ferrara and there were multiple ones when it was piped in Raleigh. Thanks.

Tom Darden
919 522 4095 m

From: fabiopenon@iol.it
Sent: Wednesday, February 18, 2015 4:59 PM
To: tdarden@industrialheat.co
Reply To: fabiopenon@iol.it
Cc: ar.123@mail.com; jvaughn@industrialheat.co; tdameron@industrialheat.co
Subject: R: Re: Tests plan

Dear Mr Darden,

Please find the following answers to your last email:

1. In the scope of proposal by myself prepared at the request of Dr. Rossi for the safety certification of the E-Cat plant MW1 by Bureau Veritas, that I mention in the test protocol proposal PC 1503 ed. 0, is necessary the definition of the technical specification of the system.

The technical specification shows technical characteristics of the plant.

They will be defined according to the results that I will have found during and after the tests that I am performing as the ERV .

2. About the evidence that it is impossible to have a steam pipe that is partially filled with water and partially filled with 103 Celsius degrees steam, I believe the best answer is that the probe is placed at the outlet of the steam at the bottom of the steam pipe section.

If in this part of the pipe the steam temperature is close to or more than 103 ° C, at room pressure, there is only superheated steam and the water cannot be present at that point.

If we move away from the exit point, it is possible the formation of small amounts of water, which will be collected in the collector, but which, in my opinion, does not affect the calculation of the multiple energy produced inside the plant.

Sincerely

Fabio Penon

-----Messaggio originale-----

Da: tdarden@industrialheat.co

Data: 18/02/2015 18.07

A: <fabioopenon@iol.it>

Cc: <ar.123@mail.com>, <jvaughn@industrialheat.co>, <tdameron@industrialheat.co>

Ogg: Re: Tests plan

Thanks for the news about BV, I was not aware of that. So, are you saying BV will be certifying the energy multiple of our plant? That is excellent news, we definitely would like to do this.

Could you please draw a diagram (nothing formal, just by hand is fine) showing where the condensate pipe will be?

One more question: a critic could claim that there is water below the steam. How do we prove it is impossible to have a steam pipe which is partially filled with flowing water, and partially filled with 103 degree steam? One way would be to have multiple temperature probes into the steam pipe, so you measure the temperature at the top of the pipe and at the bottom. This is a good idea just to add comfort and certainty to our claims of success. How many probes will there be?

Thanks do very much for your important work. This evaluation will have the eyes of the world on it, once we release any information!

Tom Darden
919 522 4095 m

From: fabioopenon@iol.it

Sent: Wednesday, February 18, 2015 11:53 AM

To: tdarden@industrialheat.co

Reply To: fabioopenon@iol.it

Cc: ar.123@mail.com; jvaughn@industrialheat.co; tdameron@industrialheat.co

Subject: R: Re: Tests plan

Dear Mr Darden,

the 'water saturated vapor' is a vapor, whose temperature equals the temperature of boiling at the pressure existing on it (Mc Graw Hill, Dictionary of scientific & technical terms)

The wet vapor is a vapor containing liquid droplets

The dry water saturated vapor is saturated vapor without suspended particles of water

This is a condition extremely instable.

A slightest heat gain transforms it into a superheated vapor.

In the temperature and pressure internal, in which thermodynamic equilibrium can exist, a fixed saturated vapor temperature corresponds to each pressure.

At a pressure of 760 mm Hg the saturated temperature is 100 °C

In the E-Cat MW1 - USA I will check that the steam pressure is near atmospheric pressure and the temperature of the steam is always significantly greater than 100 ° C at least equal to 103 ° C.

In this way I should be certain that the steam is superheated steam and then always without suspended particles of water.

Following my request a few weeks ago, before the plant start up dr Rossi has to apply a condensed steam collector at the bottom of the steam pipe, before the plant start up

During my visits I will check the amount of the water present

Absolutely I agree that 'having a 100% unquestionable report will be the most important way to establish the credibility of this new energy source'.

In fact, Dr. Rossi has accepted my proposal for the certification of the technical features, such as multiple energy, the E-Cat MW1, by Bureau Veritas, certification body prestigious and well-know over the world.

We are already working on the definition of the technical specification of the plant.

Our goal is to begin the certification tests by end of the year

Sincerely

Fabio Penon

-----Messaggio originale-----

Da: tdarden@industrialheat.co

Data: 18/02/2015 6.11

A: <fabioopenon@iol.it>, <ar.123@mail.com>

Cc: <jvaughn@industrialheat.co>, "T Barker Dameron" <tdameron@industrialheat.co>

Ogg: Re: Tests plan

Dear Dr Penon:

Please let me know your plan for determining that the steam is 100% dry, and that there is no water in the pipe. For example, a sight tube, or a condensate collector coming off the bottom of the steam pipe. These are just suggestions--I am sure you can find the best way to do this.

We are excited to see the machine operate, and we believe that having a 100% unquestionable report will be the most important way to establish the credibility of this new energy source. If we can show the world after the test that our results are completely beyond dispute, this will define Dr Rossi as the most important inventor of all time. Having a solid measurement system is the key to all this.

Tom Darden
919 522 4095 m

From: fabioopenon@iol.it
Sent: Tuesday, February 10, 2015 3:18 PM
To: ar.123@mail.com; tdarden@industrialheat.co
Reply To: fabioopenon@iol.it
Subject: Tests plan

Dear Sirs,

in the Annex you may find the report 'E-Cat MW1 Energy Plant in Miami: Tests plan', concluding the first module (see proposal E-Cat MW1 Energy Plant in Miami: evaluation of the energy multiple')

I am at your disposal for any clarifications.

Sincerely

Fabio Penon

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1 felt it was very, very deficient as far as testing and
2 advice of this type.

3 Q. I'm going to stop you for a moment. You said
4 in discussions with Mr. Murray, he felt it was
5 deficient.

6 Did you do your own evaluation of the test
7 plan?

8 A. Oh, yeah. Oh, yeah.

9 Q. And that evaluation was done for what
10 purpose?

11 A. To determine if it was a proper way to test a
12 device of this sort.

13 Q. Okay. And did anyone ever tell you in this
14 case that the defendants, Ms. -- I'm sorry, Industrial
15 Heat and IPH International B.V. agreed to that test
16 plan?

17 A. They have, yes.

18 Q. They did tell you that?

19 A. They did, yes.

20 Q. Okay. So you were aware that that was an
21 agreed-to test plan?

22 A. I am aware of that.

23 Q. And your opinion is that it is somehow
24 deficient?

25 A. Correct, it is deficient, yes, sir.

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Monday, December 02, 2013 6:05 PM
To: dewey.weaver
Subject: Re: Fwd: Interesting data

Not sure, as I was not present during the key time period. B/c of the continuous input water (float valve activated), the steam temperature tends to stay about 99C (so, it typically never appears more or less 'energetic'(hot/dry), though volume does increase/decrease based on input/reactor temp). B/c the water level is so full in the tank on a continuous basis (ie, it's always over the reactor), you never really get super-heated steam. The experiment I'm running right now, however, does have super-heated steam b/c the water level is constantly dropping and less and less of the reactor is submerged (current steam temp is 130C and rising).

On Mon, Dec 2, 2013 at 5:58 PM, dewey.weaver <dewey.weaver@deeprv.com> wrote:
 JT - did your steam output during the Wed afternoon experiment appear to be more voluminous / energetic?

----- On Mon, 02 Dec 2013 16:47:04 -0600 **JT Vaughn**<jvaughn@industrialheat.co> wrote -----

Please keep strictly confidential. I wanted to share this with you guys b/c it may contradict my statement earlier today about not having seen excess heat in tests with the 'Pig' device (Lynne: the Pig is an insulated device which contains an E-Cat HT reactor inserted in a sealed water tank with a steam pipe).

Further data analysis and replication required, but I wanted to share this with you guys on a preliminary basis.

JT

----- Forwarded message -----

From: JT Vaughn <jvaughn@industrialheat.co>
Date: Mon, Dec 2, 2013 at 1:59 PM
Subject: Interesting data
To: Tom Darden <tdarden@industrialheat.co>
Cc: T Barker Dameron <tdameron@industrialheat.co>

Tom: see the attached spreadsheet. There are three tabs of data from the three tests I ran last week with the Pig. The third tab titled, '11.27.13 PM test' is the pertinent set of data. If you review that data, you will see a reported COP of 1.302.

That was the short test I ran on Wednesday, prior to leaving around 4PM to go to Norwood. I didn't really believe the data, so I didn't want to send it to you until I had TBD review my calculations. He has briefly reviewed my calculations (but he has not examined the raw data) and thinks the calculations are correct.

I feel pretty confident in the water measurement, and even if I am off by a quarter of a liter (which I am positive is not the case), the COP is still above 1.0 (1.042 to be exact), which is more than the ~ 0.94 - 0.97 range I have been seeing.

I have attached thermocouple and input power data from this test for TBD. Core 11-2.

After today's test, which is different (testing it without adding water to refill it while operating), I plan to try to replicate the same results by conducting the exact same test (duration and input power).

JT

--

JT Vaughn
Industrial Heat
919-649-5299
jvaughn@industrialheat.co

--

JT Vaughn
Industrial Heat
919-649-5299
jvaughn@industrialheat.co

--

JT Vaughn
Industrial Heat
919-649-5299
jvaughn@industrialheat.co

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Tuesday, July 16, 2013 9:45 AM
To: Tom Darden
Subject: Re: Industrial Heat Investor Update: July 2013

Tom: any thoughts on this? Happy to edit and/or delete/add sections. I tried to make it more or less comprehensive without getting in the weeds too much. I mentioned the 1.3X COP test, but if you feel we should phrase that in a better way, let me know. Also, you may not want to be as detailed as I was on personnel issues, but I thought doing so shows a lot of momentum.

On Tue, Jul 16, 2013 at 12:35 AM, JT Vaughn <jvaughn@industrialheat.co> wrote:
In-case the last one didn't show-up well on iPhone (mine did not come through properly).

--

Industrial Heat Update July 2013

I wanted to provide a brief update on how things are going with our new initiative, which is focused on commercializing Andrea Rossi's so-called low energy nuclear reaction ("LENR") technology. (For what it's worth, we agree with Mark Gibbs at Forbes who recently wrote about the need to relabel LENR technologies; he proposed "Anomalous Energy Systems").

As background, last October we entered into an agreement with Dr. Rossi to fund the construction of a large-scale energy plant using his anomalous energy technology. We tested our plant at the end of April and beginning of May, for four days. During the tests, we operated 37 different reactors for periods ranging from 24 hours to a few hours, and the results were good--our engineer and the independent engineer operating the tests reported that the machines produced far more energy than they required to operate (nearly 11 times as much in some instances, versus our test requirement of 6 times, during the 24 hour test).

In mid-May, following our successful test, we made a payment to Dr. Rossi to acquire the intellectual property associated with his anomalous energy technology. Around the same time, scientists from Sweden and Italy published a report detailing two independent tests they conducted of Dr. Rossi's technology.

Their report concluded, 'Even by the most conservative assumptions as to the errors in the measurements, the result is still one order of magnitude greater than conventional energy sources.' The report is available online at <http://arxiv.org/abs/1305.3913>. As you will deduce from the report, this technology is important because it generates clean energy (no emissions, no radioactive material) from minute quantities of readily available raw materials (primarily hydrogen and nickel) and it could theoretically power our entire economy.

Through the remainder of May and June we met numerous times (in Italy and the US) with Dr. Rossi and his electrical engineer, Fulvio Fabiani, to transfer all of the know how necessary to construct, fuel and operate the reactor. The intellectual property transfer has been a methodical undertaking. This is because we have been very intentional about protecting trade secrets and other intellectual property. Moreover, Dr.

Rossi developed and refined his knowledge of the reaction over many years and likely thousands of experiments--it is difficult to transmute all of this knowledge in only a few short weeks.

The first test of our knowledge retention involved us taking apart a reactor originally built by Dr. Rossi, re-building it ourselves and fueling it with our own charge. Unfortunately, the re-built reactor with our charge appeared to generate only about 1.3X its input energy. In addition to a poorly mixed and/or poorly distributed charge, another reason for this low multiple may be that we only ran the reactor for 1.5 hours, as opposed to 24 hours in our prior test in Italy. At any rate, we perceive we still have some work to do with regard to the IP transfer.

In addition to transferring IP, we have also begun staffing up: we will retain Dr. Rossi as Chief Scientist and we have also hired Fulvio Fabiani to assist with electronics and controls; in addition, we have hired T. Barker Dameron, a trusted associate of mine who is also a Professional Engineer and part-time inventor, to help design, build and test prototypes; Bill Moscrip, a mechanical engineer and respected inventor, is helping with CAD drawings, thermodynamic modelling and identifying and developing further intellectual property; Steve Browne, who was previously the Manager of Radiation Safety at Troxler, is helping with radiation testing, assessment and regulatory compliance.

We are working with Dewey Weaver and Paul Morris of Deep River Ventures to identify, develop and protect intellectual property. Thus far, we have filed three provisional patents and have captured an additional five disclosures which will likely turn into patent applications.

We are working with two local machine shops to rapidly build different components of new prototypes, the first of which has been built. We hope to test the performance of this new reactor design in the coming weeks, so look for an update on this front in August. We do not anticipate that it will initially perform better than prior models, but we hope the new design will at least make it easier to calculate the energy input and output.

We have secured office space in Research Triangle Park, NC as well as an R&D testing facility in close proximity to the office.

We have hired APCO Worldwide to help with communications and public relations.

We registered a Netherlands-based IP holding company. We are working with legal counsel to establish a global corporate structure which will position us to work with partners to expeditiously enter both the US and China markets. We believe this is important for a multitude of reasons, including environmental concerns: the US and China far outstrip the rest of the world in carbon dioxide emissions.

We are working to raise significant additional capital to ramp up commercialization efforts. The primary institutional investment fund we have engaged is interested but cannot close until at least September. In the interim, we are focused on: 1) demonstrating our ability to construct, fuel and operate the reactor independent of Dr. Rossi; 2) identifying and protecting intellectual property; 3) putting in-place a thoughtful international corporate structure; 4) identifying and recruiting key personnel; 5) setting-up office and R&D facilities; and 6) improving the reactor's design, controls and performance.

I hope this information is useful and I apologize for the lengthy update. Future updates will be much shorter and likely in bullet point format. However, I wanted to be more thorough with this initial update.

Please do not hesitate to call me at 919 522 4095 (m) anytime; or to email with any questions.

--
JT Vaughn

Industrial Heat
919-649-5299
jvaughn@industrialheat.co

--
JT Vaughn
Industrial Heat
919-649-5299
jvaughn@industrialheat.co

From: eon333@libero.it
Sent: Wednesday, February 18, 2015 8:42 PM
To: BMcLaughlin@apcoworldwide.com
Cc: Tom Darden (tdarden@industrialheat.co); JT Vaughn (jvaughn@industrialheat.co)
Subject: R: New Mantras

Hi, Brian.
Please find my answers along your text in capital letters:

----Messaggio originale----

Da: BMcLaughlin@apcoworldwide.com

Data: 19/02/2015 0.29

A: "eon333@libero.it"<eon333@libero.it>

Cc: "Tom Darden (tdarden@industrialheat.co)"<tdarden@industrialheat.co>, "JT Vaughn (jvaughn@industrialheat.co)"<jvaughn@industrialheat.co>

Ogg: New Mantras

Andrea,

I hope the weather in Florida is treating you better than the weather here in Washington, where it is extremely cold!

I spoke with Tom today and he reported that the 400 day test is about to commence. I wanted to share some new mantras with you around this event. I also want to raise a matter that came up two weeks ago – regarding the location of the reactor and where you are doing your work. I think we will continue to see inquiries about where the reactor is located and where you are doing your work. We believe kind of inquiry will drive critics (Crivitz/Wright) to try more ways to engage and question your work. We want to avoid this – so really strongly urge you against sharing the start of the testing or the location.

I TOTALLY AGREE. THE LOCATION MUST REMAIN SECRET UNTIL THE END OF THE TEST. I ONLY SAID THAT THE PLANT HAS BEEN MANUFACTURED IN THE FACTORY OF RALEIGH, ALSO TO RESPOND TO WRIGHT THAT WROTE THAT THE FACTORY DOES NOT EXIST

As guidance, I think we should call this event “a long term test and continued R&D.”

OK

I would strongly urge against declaring a starting point, if asked I would recommend saying “A long term test is expected, however, I am under an NDA that prevents me from sharing any specific information.”

OK

The lack of information on this matter is our best strategy for limiting critics from impacting the reputation of your work. It will also prevent them from having an opportunity to identify the location of the test and reactor. This should be a top priority!

OK

If asked about the reactor location – simply respond, “the reactor location cannot be disclosed due to the NDA, but it is safe and secure.”

I ALWAYS DID IT

As always, if you need anything don’t hesitate to call or email me!

THANK YOU

ANDREA

Brian

Brian McLaughlin
associate director

APCO Worldwide

700 12th Street, N.W.

Suite 800

Washington, DC 20005

(t) 202.778.1488

(m) 202.280.4069

(f) 202.466.6002

bmclaughlin@apcoworldwide.com

Learn more about APCO at www.apcoworldwide.com



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CONFIDENTIALITY

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From: Joe Pike <jpike@evofem.com>
Sent: Monday, February 02, 2015 9:41 AM
To: Andrea Rossi
Subject: Re: Update from Andrea Rossi

Andrea,

I have been thinking about you and the upcoming exciting event. I am going to be traveling out of the country tomorrow for a couple of weeks, but I want to come visit you when I get back and see the masterpiece.

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PTE: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Friday, January 16, 2015 at 7:57 PM
To: Tom Darden <tdarden@industrialheat.co>, Daniel Pike <daniel@pike.co>, Joe Pike <jpike@evofem.com>, JT Vaughn <jvaughn@industrialheat.co>, T Barker Dameron <tdameron@industrialheat.co>
Subject: Update from Andrea Rossi

Dear All:

This week we have made a very good work, we are approaching the start up moment, and we are well in schedule to start the plant on the first week of february. Barry and the 2 workers with him behave well as usual. Fulvio too is working hard.

No negative notes . Everything positive.

We have put on place the USA Flag, right at the entrance.

The plant is a magnificence.

Warmest Regards,

Andrea

From: Joe Pike <jpike@evofem.com>
Sent: Wednesday, June 17, 2015 12:25 PM
To: Andrea Rossi
Subject: Re: Update from Andrea Rossi

Thank you so much Andrea, you are the best!!

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PIL: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Tuesday, June 16, 2015 at 4:49 AM
To: Joe Pike <jpike@evofem.com>, Daniel Pike <daniel@pike.co>, Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>
Subject: Re: Update from Andrea Rossi

Dear Joe:

Thank you for your kind email.

You are very welcome to come here to our SPA inside the E-Cat container !!! By the way, the slimming treatment comes for free for the first 10 pounds you lose; for the additional lbs we apply a premium fee to be agreed upon. I lost about 10 lbs in these last 4 months...

Yes, we are testing here also the Hot Cat, that will be the core of the domestic E-Cat and I can tell you that it goes very well !!!

It has been manufactured entirely in Raleigh by Industrial Heat.

Tom made the charge.

The ERV that is making the certification of the performance of the 1 MW plant said that at the end of the test of the 1 MW E-Cat he will be also ready to make the safety certification of the domestic E-Cat. This means the potential sale of hundreds of millions of pieces.

We are working very hard, but important results are arriving.

Thank you for your permanent and very kind attention.

The fact that Tom bounces between USA, London and China sounds very good.

Warmest Regards,

Andrea

Sent: Tuesday, June 16, 2015 at 5:23 AM
From: "Joe Pike" <jpike@evofem.com>
To: "Andrea Rossi" <ar.123@mail.com>
Subject: Re: Update from Andrea Rossi

Andrea,

Thanks for the continued good reports. I think I might come over for a little weight reduction Spa time with you. I don't seem to be able to get slim with any other methods.

I'm sorry for the earlier confusion about helping us with build units we can use with potential commercial customers. I know your primary responsibility is your work there on site. But are you going to the small units in the container? Since some of those were built by Tom and his team, it would be nice if we could represent that they are functioning.

Try to stay cool my friend.

Joe

Ps: Not seeing much of Tom these days. He stopped by San Diego for a two hour meeting on Friday, having flown in from London. He was taking an over night back to Raleigh and flying to Beijing on Sunday.

Joseph D. Pike CEO

EvoMed Holdings LLC

8910 University Center Lane

Suite 120

San Diego, CA 92122

PH: 858-550-1900 ext 103 | FX: 858-550-0119

Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>

Date: Sunday, June 14, 2015 at 12:53 PM

To: Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>, Daniel Pike <daniel@pike.co>, Joe Pike <jpike@evofem.com>, John Mazzarino <jmazzarino@industrialheat.co>

Subject: Update from Andrea Rossi

Dear All:

Sunday, June 14

Here are the news from inside the plant.

The 1MW E-Cat is working well and stable, even if during the last 3 days we had to resolve a problem due to a very trivial thing that could cause big problems: the boxes of the electronics that are applied to every reactor are made in series and they are hermetically closed;

obviously we have applied them as they are made; now we discovered that in our case the difference of temperature between outside the boxes and inside the boxes generates a condensation of the water contained in the air, so that the boxes in 3 months collected much water, not enough to be visible, but enough to cause short circuits...so we had series of short circuits we did not understand the reason of... after an analysis we discovered the issue and resolved a problem that appeared to be dangerous, simply making intakes of air at the bottom of all the boxes: since then all returned perfect.

The data are constant.

Very good also the behaviour of the Hot Cat with which I am making experiments finalized to make the domestic E-Cat.

By the way, if any of you wants to lose weight, forget spas: come here, inside the container of the reactors: I guarantee slimness for free.

Warmest Regards,

Andrea (obviously from inside the plant)

From: Andrea Rossi <ar.123@mail.com>
Sent: Wednesday, February 18, 2015 5:50 AM
To: Tom Darden
Subject: Re: Update from Andrea Rossi

Dryness of steam is calculated by temperature vs pressure. Pressure is one of the parameters registered together with temperature.

Warmest Regards,
Andrea

Sent: Wednesday, February 18, 2015 at 5:39 AM
From: "Tom Darden" <tdarden@industrialheat.co>
To: "Andrea Rossi" <ar.123@mail.com>, "JT Vaughn" <jvaughn@industrialheat.co>, "Joe Pike" <jpike@evofem.com>, "Daniel Pike" <daniel@pike.co>, "John Mazzarino" <jmazzarino@industrialheat.co>
Subject: Re: Update from Andrea Rossi

Thanks for this update and positive news for us and for the world.

By the way, after seeing the email from Penon, I did have one question about how he will determine whether the steam in the line is dry. I will forward to him shortly.

Tom Darden
919 522 4095 m

From: Andrea Rossi
Sent: Tuesday, February 17, 2015 9:55 PM
To: Tom Darden; JT Vaughn; Joe Pike; Daniel Pike; John Mazzarino
Subject: Update from Andrea Rossi

Dear All:

Yesterday the ERV (Eng. Penon) is arrived and started the work in the factory of Miami.

Today we began the installation of all his measurement instrumentation, that will be completed tomorrow morning.

The plant is complete and ready to start. We have found many short circuits in the cablings, but with the excellent work of Barry West, directed by Fulvio Fabiani, we have resolved the problems. Tomorrow we will start the plant.

Probably we will have troubles for a couple of weeks.

I will update you. With the help of God, at the end of February Industrial Heat will issue the first invoice for the sale of energy made by a 1 MW E-Cat.

Thursday 19th will be the Chinese New Year: I wish a successful and strongly positive New Year to Mia and Daniel Pike, her father and all our Chinese Friends:

Andrea Rossi

From: Andrea Rossi <ar.123@mail.com>
Sent: Sunday, August 30, 2015 10:43 AM
To: Daniel Pike
Subject: Re: Andrea- Update

No, but She can fly...
Have a wonderful Sunday!
Andrea

Sent: Sunday, August 30, 2015 at 3:44 PM
From: "Daniel Pike" <daniel@pike.co>
To: "Andrea Rossi" <ar.123@mail.com>
Cc: "Tom Darden" <tdarden@industrialheat.co>, "JT Vaughn" <jvaughn@industrialheat.co>, "John Mazzarino" <jmazzarino@industrialheat.co>, "Joseph D. Pike" <jpike@evofem.com>
Subject: Re: Andrea- Update

Andrea,
Hope you stay warm, dry and safe.
Does the e-cat float?

On Aug 30, 2015, at 9:12 PM, Andrea Rossi <ar.123@mail.com> wrote:

Dear All:
Today is Erika hurricane day, until tomorrow, but so far all I saw is some rain and black sky. We'll see.
I am in the plant, that is going on well, along the last update. If the hurricane arrives, I stay here until it stops.
Have you all a great Sunday,
Warmest Regards,
Andrea

From: Joe Pike <jpike@evofem.com>
Sent: Saturday, February 21, 2015 11:23 AM
To: Andrea Rossi
Cc: Tom Darden; JT Vaughn; John Mazzarino; Daniel Pike; T Barker Dameron
Subject: Re: update from the 1MW plant

Wow . . .

Sent from my iPhone

On Feb 21, 2015, at 9:53 AM, Andrea Rossi <ar.123@mail.com> wrote:

Dear All:

We have reached the perfection.

The plant has pumped inside 2 tonnes of water that are circulating with a flow of 1.6 cubic meters per hour.

We are consuming an average of 40 kW of electric power, with very long self sustaining mode. The COP (unbelievable!) is now 33, but I am not sure we will be able to maintain it. I spent the night in the plant controlling that there were no problems (this initial period is very dangerous and I want not other persons inside if not for measurements that make me need help.

The Frankiesteins are making a fantastic work, giving much more than expected: this makes me think that the assembly with 16 modules inside are more efficient. I noticed that 5 E-Cats no not have efficiency at all, probably there is some problem with the charge. They just give the energy of the resistance. We will take them off and see inside the situation, to understand.

We had to make many modifications during the first 50 hours of operation, because many problems not visible at plant non operative popped up. I had here a contractor with 5 steel workers to make modifications with the plant in operation. I found very good steel workers-contractors, with which I made a SOS agreement: for whatever reason I need them, they will be here in max 30 minutes 24/7/365. Same contract I made with an electricist company. So all the bases are covered.

Obviously I am taking record of all the errors of construction, to improve the next production: technology is born by errors.

I am staying on the plant 16-20 hours per day, in this period is necessary.

Have a wonderful week-end you all,

Andrea

From: Tom Darden <tdarden@industrialheat.co>
Sent: Sunday, November 01, 2015 11:33 PM
To: Andrea Rossi
Cc: JT Vaughn; John Mazzarino; Joe Pike; Daniel Pike
Subject: Re: Andrea Rossi update

Great to hear from you. Thanks.

On Sunday, November 1, 2015, Andrea Rossi <ar.123@mail.com> wrote:

Dear All:

I hope this email finds you all well.

Sunday Nov 1, 07.00 p.m., inside the plant: all is stable, no troubles apart the usual leaks now and again. Enormous work to do in future upon the materials. I am studying on this issue too.

Warmest Regards,
Andrea

--

Tom Darden
919-743-2506

From: Joe Pike <jpike@evofem.com>
Sent: Wednesday, March 25, 2015 12:23 PM
To: Andrea Rossi; Tom Darden; JT Vaughn; Daniel Pike; JohnMazzarino
Subject: Re: Andrea Update

Wow Andrea,
What an honor just to be nominated. And I have no doubt that no one is more deserving to win.
Why don't you let them see inside the container? As you said below, it can only be positive for those guys to like you.
I'm really looking forward to seeing you, my friend.
Joe

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PH: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Wednesday, March 25, 2015 at 9:54 AM
To: Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>, Joe Pike <jpike@evofem.com>, Daniel Pike <daniel@pike.co>, John Mazzarino <jmazzarino@industrialheat.co>
Subject: Andrea Update

Dear All:
All ready and good for your visit of tomorrow.
E-Cat 1000 stable.
Today I will receive here a 10 minutes visit of the Royal Academy of Science of Sweden (some guys that made the Lugano test). They are here for other reasons and asked to see the plant under NDA about the address and the name of the Customer. They will not publish anywhere what they see and the address they get. I go to pick up them at the Hotel they are staying and bring them back before noon. The visit will not last more than 15 minute, because I want nobody interfere in the work of the ERV, so they are not going to make any operation, Just take a look to see that it exist and is working.
Even if I do not think I will get the Nobel Prize (for which they made the nomination) I think the visit can only be positive. I will not let them inside the container, just a look.
As you have seen another campaign against me has been set up in the Nobel-Price war, like happens to the runners in the presidential campaigns...
See you tomorrow,
Warmest Regards,
Andrea

From: Andrea Rossi <ar.123@mail.com>
Sent: Sunday, June 07, 2015 1:09 PM
To: Joe Pike; Daniel Pike; Tom Darden; JT Vaughn; JohnMazzarino
Subject: Fw: Re: For your review 2/2

Hi, Joe!

I know nothing about any new facility in Raleigh! I am very surprised to know this from you now, because I repeatedly met JT and Tom, also recently, but nobody informed me about a new facility in preparation. As I said, I cannot do any other test in any way until this test in Doral will have been finished, to complete this contractual phase.

I am not able to participate in any form to any demo, because I have to stay 16 hours per day with the full availability and focus of myself inside the plant and I have to be available to run here in case of emergency 24 hours per day.

Warmest Regards,
Andrea

Sent: Sunday, June 07, 2015 at 6:15 PM
From: "Joe Pike" <jpike@evofem.com>
To: "Andrea Rossi" <ar.123@mail.com>
Subject: Re: For your review 2/2

Andrea,

I want to thank you for your tireless work, and for helping us with our business. I understand that you need to be full time with your device in Doral, and do not have time to help us build another 1 megawatt plant. But, thank you so much for agreeing to help us get a couple of demos together that we can use in Raleigh.

Have you been to the new facility in Raleigh yet? I haven't seen it yet.

Now that we have received our first serious investment capital, I am excited about what the future holds.

Thanks so much for your friendship to Tom, Daniel, Mia and me.

Cheers,
Joe

Joseph D. Pike CEO

EvoMed Holdings LLC

8910 University Center Lane

Suite 120

San Diego, CA 92122

PH: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Saturday, June 6, 2015 at 5:45 PM
To: Daniel Pike <daniel@pike.co>, Joe Pike <jpike@evofem.com>, Mia Xie <xieboya@gmail.com>, JT Vaughn

<jvaughn@industrialheat.co>, John Mazzarino <jmazzarino@industrialheat.co>

Cc: "Thomas F. Darden II" <tfdarden@yahoo.com>

Subject: Re: For your review 2/2

Dear Mia, Daniel:

I succeeded to open the attachments.

Congratulations, you made a very good job.

I suggest the following corrections:

1- Attachment 1/2

i- Paragraph 1: please take off "Prof" Rossi, I am not a Prof; you can put "DR Rossi"

2- Attachment 2/2

i- pag 8: same thing, I am Dr Rossi, not Prof. Rossi

ii- pag. 5: the drawing is not of a LENR plant, but of the Hot Fusion plant of Caradache (30 billion invested, never worked). Better substitute with a photo of our plant in Doral, choose one of the many you made during the visit of our Chinese Friends

iii- pag. 7: the Piantelli patent, after an action of my patent attorneys, is on course of cancellation, because has been copied from my Italian patent of 2009. The examiners of the appeal of the European Patent Office have written this in a document I already transmitted to Tom and JT. I suggest to take off this citation. You could put the ref of my Italian patent (granted) pending in the USA (the chance to have our patent granted in the USA are very high; we have 2 pending, plus 56 provisional patent pending; one of the regular pending applications is very close to be granted, I suppose.

Conclusion: Mia and Daniel have made a very, very good job, highly professional; let us all cross our fingers for they have a successful presentation to this enormously important Customer !!!!

Go, Mia and Daniel, GO !!!

Yours Andrea

Sent: Saturday, June 06, 2015 at 7:15 PM

From: "Daniel Pike" <daniel@pike.co>

To: "Thomas F. Darden II" <tfdarden@yahoo.com>, "Andrea Rossi" <ar.123@mail.com>

Subject: For your review 2/2

Tom, Andrea,

Mia asked me to forward this to you to check for any inaccuracies and provide feedback.

Thanks.

Daniel

Sent from my iPhone

From: Joe Pike <jpike@evofem.com>
Sent: Wednesday, June 17, 2015 12:25 PM
To: Andrea Rossi
Subject: Re: Update from Andrea Rossi

Thank you so much Andrea, you are the best!!

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PIL: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Tuesday, June 16, 2015 at 4:49 AM
To: Joe Pike <jpike@evofem.com>, Daniel Pike <daniel@pike.co>, Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>
Subject: Re: Update from Andrea Rossi

Dear Joe:

Thank you for your kind email.

You are very welcome to come here to our SPA inside the E-Cat container !!! By the way, the slimming treatment comes for free for the first 10 pounds you lose; for the additional lbs we apply a premium fee to be agreed upon. I lost about 10 lbs in these last 4 months...

Yes, we are testing here also the Hot Cat, that will be the core of the domestic E-Cat and I can tell you that it goes very well !!!

It has been manufactured entirely in Raleigh by Industrial Heat.

Tom made the charge.

The ERV that is making the certification of the performance of the 1 MW plant said that at the end of the test of the 1 MW E-Cat he will be also ready to make the safety certification of the domestic E-Cat. This means the potential sale of hundreds of millions of pieces.

We are working very hard, but important results are arriving.

Thank you for your permanent and very kind attention.

The fact that Tom bounces between USA, London and China sounds very good.

Warmest Regards,

Andrea

Sent: Tuesday, June 16, 2015 at 5:23 AM
From: "Joe Pike" <jpike@evofem.com>
To: "Andrea Rossi" <ar.123@mail.com>
Subject: Re: Update from Andrea Rossi

Andrea,

Thanks for the continued good reports. I think I might come over for a little weight reduction Spa time with you. I don't seem to be able to get slim with any other methods.

I'm sorry for the earlier confusion about helping us with build units we can use with potential commercial customers. I know your primary responsibility is your work there on site. But are you going to the small units in the container? Since some of those were built by Tom and his team, it would be nice if we could represent that they are functioning.

Try to stay cool my friend.

Joe

Ps: Not seeing much of Tom these days. He stopped by San Diego for a two hour meeting on Friday, having flown in from London. He was taking an over night back to Raleigh and flying to Beijing on Sunday.

Joseph D. Pike CEO

EvoMed Holdings LLC

8910 University Center Lane

Suite 120

San Diego, CA 92122

PH: 858-550-1900 ext 103 | FX: 858-550-0119

Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>

Date: Sunday, June 14, 2015 at 12:53 PM

To: Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>, Daniel Pike <daniel@pike.co>, Joe Pike <jpike@evofem.com>, John Mazzarino <jmazzarino@industrialheat.co>

Subject: Update from Andrea Rossi

Dear All:

Sunday, June 14

Here are the news from inside the plant.

The 1MW E-Cat is working well and stable, even if during the last 3 days we had to resolve a problem due to a very trivial thing that could cause big problems: the boxes of the electronics that are applied to every reactor are made in series and they are hermetically closed; obviously we have applied them as they are made; now we discovered that in our case the difference of temperature between outside the boxes and inside the boxes generates a condensation of the water contained in the air, so that the boxes in 3 months collected much water, not enough to be visible, but enough to cause short circuits...so we had series of short circuits we did not understand the reason of... after an analysis we discovered the issue and resolved a problem that appeared to be dangerous, simply making intakes of air at the bottom of all the boxes: since then all returned perfect.

The data are constant.

Very good also the behaviour of the Hot Cat with which I am making experiments finalized to make the domestic E-Cat.

By the way, if any of you wants to lose weight, forget spas: come here, inside the container of the reactors: I guarantee slimness for free.

Warmest Regards,

Andrea (obviously from inside the plant)

From: Joe Pike <jpike@evofem.com>
Sent: Saturday, February 21, 2015 11:23 AM
To: Andrea Rossi
Cc: Tom Darden; JT Vaughn; John Mazzarino; Daniel Pike; T Barker Dameron
Subject: Re: update from the 1MW plant

Wow . .

Sent from my iPhone

On Feb 21, 2015, at 9:53 AM, Andrea Rossi <ar.123@mail.com> wrote:

Dear All:

We have reached the perfection.

The plant has pumped inside 2 tonns of water that are circulating with a flow of 1.6 cubic meters per hour.

We are consuming an average of 40 kW of electric power, with very long self sustaining mode. The COP (unbelievable!) is now 33, but I am not sure we will be able to maintain it. I spent the night in the plant controlling that there were no problems (this initial period is very dangerous and I want not other persons inside if not for measurements that make me need help.

The Frankiesteins are making a fantastic work, giving much more than expected: this makes me think that the assembly with 16 modules inside are more efficient. I noticed that 5 E-Cats no not have efficiency at all, probably there is some problem with the charge. They just give the energy of the resistance. We will take them off and see inside the situation, to understand.

We had to make many modifications during the first 50 hours of operation, because many problems not visible at plant non operative popped up. I had here a contractor with 5 steel workers to make modifications with the plant in operation. I found very good steel workers-contractors, with which I made a SOS agreement: for whatever reason I need them, they will be here in max 30 minutes 24/7/365. Same contract I made with an electricist company. So all the bases are covered.

Obviously I am taking record of all the errors of construction, to improve the next production: technology is born by errors.

I am staying on the plant 16-20 hours per day, in this period is necessary.

Have a wonderful week-end you all,

Andrea

From: Joe Pike <jpike@evofem.com>
Sent: Monday, February 02, 2015 9:41 AM
To: Andrea Rossi
Subject: Re: Update from Andrea Rossi

Andrea,
I have been thinking about you and the upcoming exciting event. I am going to be traveling out of the country tomorrow for a couple of weeks, but I want to come visit you when I get back and see the masterpiece.

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
P/E: 858-550-1900 ext 103 | F/X: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Friday, January 16, 2015 at 7:57 PM
To: Tom Darden <tdarden@industrialheat.co>, Daniel Pike <daniel@pike.co>, Joe Pike <jpike@evofem.com>, JT Vaughn <jvaughn@industrialheat.co>, T Barker Dameron <tdameron@industrialheat.co>
Subject: Update from Andrea Rossi

Dear All:
This week we have made a very good work, we are approaching the start up moment, ans we are well in schedule to start the plant on the first week of february. Barry and the 2 workers with him behave well as usual. Fulvio too is working hard.
No negative notes . Everything positive.
We have put on place the USA Flag, right at the entrance.
The plant is a magnificence.
Warmest Regards,
Andrea

From: Tom Darden <tdarden@industrialheat.co>
Sent: Sunday, November 01, 2015 11:33 PM
To: Andrea Rossi
Cc: JT Vaughn; John Mazzarino; Joe Pike; Daniel Pike
Subject: Re: Andrea Rossi update

Great to hear from you. Thanks.

On Sunday, November 1, 2015, Andrea Rossi <ar.123@mail.com> wrote:

Dear All:

I hope this email finds you all well.

Sunday Nov 1, 07.00 p.m., inside the plant: all is stable, no troubles apart the usual leaks now and again.

Enormous work to do in future upon the materials. I am studying on this issue too.

Warmest Regards,

Andrea

--

Tom Darden
919-743-2506

From: Joe Pike <jpike@evofem.com>
Sent: Wednesday, March 25, 2015 12:23 PM
To: Andrea Rossi; Tom Darden; JT Vaughn; Daniel Pike; JohnMazzarino
Subject: Re: Andrea Update

Wow Andrea,
What an honor just to be nominated. And I have no doubt that no one is more deserving to win.
Why don't you let them see inside the container? As you said below, it can only be positive for those guys to like you.
I'm really looking forward to seeing you, my friend.
Joe

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PH: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Wednesday, March 25, 2015 at 9:54 AM
To: Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>, Joe Pike <jpike@evofem.com>, Daniel Pike <daniel@pike.co>, John Mazzarino <jmazzarino@industrialheat.co>
Subject: Andrea Update

Dear All:

All ready and good for your visit of tomorrow.
E-Cat 1000 stable.

Today I will receive here a 10 minutes visit of the Royal Academy of Science of Sweden (some guys that made the Lugano test). They are here for other reasons and asked to see the plant under NDA about the address and the name of the Customer. They will not publish anywhere what they see and the address they get. I go to pick up them at the Hotel they are staying and bring them back before noon. The visit will not last more than 15 minute, because I want nobody interfere in the work of the ERV, so they are not going to make any operation, Just take a look to see that it exist and is working.

Even if I do not think I will get the Nobel Prize (for which they made the nomination) I think the visit can only be positive. I will not let them inside the container, just a look.

As you have seen another campaign against me has been set up in the Nobel-Price war, like happens to the runners in the presidential campaigns...

See you tomorrow,
Warmest Regards,
Andrea

From: Joe Pike <jpike@evofem.com>
Sent: Wednesday, June 17, 2015 12:25 PM
To: Andrea Rossi
Subject: Re: Update from Andrea Rossi

Thank you so much Andrea, you are the best!!

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
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PIL: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Andrea Rossi <ar.123@mail.com>
Date: Tuesday, June 16, 2015 at 4:49 AM
To: Joe Pike <jpike@evofem.com>, Daniel Pike <daniel@pike.co>, Tom Darden <tdarden@industrialheat.co>, JT Vaughn <jvaughn@industrialheat.co>
Subject: Re: Update from Andrea Rossi

Dear Joe:

Thank you for your kind email.

You are very welcome to come here to our SPA inside the E-Cat container !!! By the way, the slimming treatment comes for free for the first 10 pounds you lose; for the additional lbs we apply a premium fee to be agreed upon. I lost about 10 lbs in these last 4 months...

Yes, we are testing here also the Hot Cat, that will be the core of the domestic E-Cat and I can tell you that it goes very well !!!

It has been manufactured entirely in Raleigh by Industrial Heat.

Tom made the charge.

The ERV that is making the certification of the performance of the 1 MW plant said that at the end of the test of the 1 MW E-Cat he will be also ready to make the safety certification of the domestic E-Cat. This means the potential sale of hundreds of millions of pieces.

We are working very hard, but important results are arriving.

Thank you for your permanent and very kind attention.

The fact that Tom bounces between USA, London and China sounds very good.

Warmest Regards,

Andrea

Sent: Tuesday, June 16, 2015 at 5:23 AM
From: "Joe Pike" <jpike@evofem.com>
To: "Andrea Rossi" <ar.123@mail.com>
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By the way, if any of you wants to lose weight, forget spas: come here, inside the container of the reactors: I guarantee slimness for free.

Warmest Regards,

Andrea (obviously from inside the plant)

From: fabiopenon@iol.it
Sent: Tuesday, January 12, 2016 10:12 AM
To: tdarden@industrialheat.co; ar.123@mail.com
Subject: report
Attachments: attachment-1.pdf; attachment-2.pdf; attachment-3.pdf; attachment-4.pdf; attachment-5.pdf; attachment-6.pdf; attachment-7.pdf; attachment-8.pdf

Dear Sirs,

please find attached the report 'E-Cat MW1 Energy Plant in Miami Energy Multiple valuation from 05/01/2015 to 11/30/2015'
I am sending it to you in advance by e-mail, while the paper copy will be mailed by registered mail to both of you.
Sincerely

M. Eng. Fabio Penon

Annexe 6: DAILY VALUATION OF THE ENERGY MULTIPLE - OCTOBER 2015

		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
09/30 22:30	10/01 22:30	7625,0	183000	70,7	27000	24300	103,5	0.0	1,52E+07	83,3
10/01 22:30	10/02 22:30	10333,3	248000	70,7	36000	32400	104,4	0.0	2,03E+07	82,0
10/02 22:30	10/03 22:30	11166,7	268000	71,1	36000	32400	104,4	0.0	2,03E+07	75,9
10/03 22:30	10/04 22:30	11000,0	264000	70,7	36000	32400	104,2	0.0	2,03E+07	77,0
10/04 22:30	10/05 22:30	11041,7	265000	71,1	36000	32400	104,4	0.0	2,03E+07	76,7
10/05 22:30	10/06 22:30	11250,0	270000	70,7	36000	32400	104,2	0.0	2,03E+07	75,3
10/06 22:30	10/07 22:30	11458,3	275000	70,3	36000	32400	104	0.0	2,03E+07	73,9
10/07 22:30	10/08 22:30	11458,3	275000	70	36000	32400	103,9	0.0	2,03E+07	73,9
10/08 22:30	10/09 22:30	11250,0	270000	70	36000	32400	103,9	0.0	2,03E+07	75,3
10/09 22:30	10/10 22:30	11250,0	270000	70	36000	32400	103,9	0.0	2,03E+07	75,3
10/10 22:30	10/11 22:30	11458,3	275000	70,3	36000	32400	103,9	0.0	2,03E+07	73,9
10/11 22:30	10/12 22:30	11500,0	276000	70	36000	32400	103,9	0.0	2,03E+07	73,7
10/12 22:30	10/13 22:30	11474,2	275380	70,3	36000	32400	104	0.0	2,03E+07	73,8
10/13 22:30	10/14 22:30	11470,8	275300	70	36000	32400	104,4	0.0	2,03E+07	73,9
10/14 22:30	10/15 22:30	11483,3	275600	70,3	36000	32400	104,4	0.0	2,03E+07	73,8
10/15 22:30	10/16 22:30	11493,8	275850	70,3	36000	32400	104,4	0.0	2,03E+07	73,7
10/16 22:30	10/17 22:30	11416,7	274000	70,3	36000	32400	104,3	0.0	2,03E+07	74,2

Annexe 6: DAILY VALUATION OF THE ENERGY MULTIPLE - OCTOBER 2015

		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
10/17 22:30	10/18 22:30	11458,3	275000	70,3	36000	32400	104,4	0.0	2,03E+07	73,9
10/18 22:30	10/19 22:30	11208,3	269000	70,7	36000	32400	104,2	0.0	2,03E+07	75,6
10/19 22:30	10/20 22:30	11208,3	269000	70,3	36000	32400	104	0.0	2,03E+07	75,6
10/20 22:30	10/21 22:30	11333,3	272000	70,3	36000	32400	104	0.0	2,03E+07	74,7
10/21 22:30	10/22 22:30	11333,3	272000	70,3	36000	32400	104	0.0	2,03E+07	74,7
10/22 22:30	10/23 22:30	11375,0	273000	70,3	36000	32400	104,3	0.0	2,03E+07	74,5
10/23 22:30	10/24 22:30	11375,0	273000	70,3	36000	32400	104,3	0.0	2,03E+07	74,5
10/24 22:30	10/25 22:30	11375,0	273000	70,7	36000	32400	104,4	0.0	2,03E+07	74,5
10/25 22:30	10/26 22:30	11333,3	272000	70,7	36000	32400	103,9	0.0	2,03E+07	74,7
10/26 22:30	10/27 22:30	11250,0	270000	71,1	36000	32400	104	0.0	2,03E+07	75,3
10/27 22:30	10/28 22:30	11375,0	273000	71,1	36000	32400	104,3	0.0	2,03E+07	74,5
10/28 22:30	10/29 22:30	11291,7	271000	71,1	36000	32400	104,4	0.0	2,03E+07	75,0
10/29 22:30	10/30 22:30	11250,0	270000	71,1	36000	32400	104,2	0.0	2,03E+07	75,3
10/30 22:30	10/31 22:30	11375,0	273000	70,7	36000	32400	104,4	0.0	2,03E+07	74,5

Ing. Fabio Penon

**E-CAT MW1 ENERGY PLANT IN MIAMI
ENERGY MULTIPLE VALUATION
FROM 05/01/2015 TO 11/30/2015**

The ERV visited the MW1 – USA plant at Doral on October 12 - 14, 2015.

The results have been already presented in the document 'E-Cat MW1 Energy Plant in Miami. Energy multiple valuation, second step', dated 10/19/2015

This report presents the 'energy multiple' value, calculated during the period 05/01/2015 – 11/30/2015

The Energy Multiple values have been calculated, assuming the same conservative criteria for the calculations made in the past, i.e.

- it has not been taken into account the heating energy of water and the heating energy of steam
- the temperature of the incoming water has been always considered to be equal to the maximum value of the same, measured during the entire test day
- the temperature of the outgoing steam has been always considered to be equal to the minimum value of the same, measured during the entire test day
- the total mass of water transited during the test period has been reduced by 10%, to take into account the small leaks of water to the inside of the shelter and the measurement uncertainties

The energy produced by the E-Cat plant is:

$$E_p = E_v = \lambda \times M_w$$

where

M_w = total mass of water, flowed through the system in one day, reduced by 10%.

λ = (latent energy of vaporization) = 627,5 Wh/kg at 0. bar

In order to be conservative all the absorbed energy (E_A) has supposed be absorbed by the 111 reactors

In reality a part of this energy feeds the pump, which conveys the water from the tank external to the reactors This energy doesn't feed the reactors

$$\text{Energy multiple} = \frac{\text{energy produced (} E_p \text{)}}{\text{energy absorbed (} E_A \text{)}}$$

Annexes

- Annexe 1: Daily valuation of the energy multiple – May 2015
- Annexe 2: Daily valuation of the energy multiple – June 2015
- Annexe 3: Daily valuation of the energy multiple – July 2015
- Annexe 4: Daily valuation of the energy multiple – August 2015
- Annexe 5: Daily valuation of the energy multiple – September 2015
- Annexe 6: Daily valuation of the energy multiple – October 2015
- Annexe 7: Daily valuation of the energy multiple – November 2015

Abano Terme, 07/01/2016

POIESIS srl
M. Eng. Fabio Penon
(Nuclear Engineer)

Annexe 1: DAILY VALUATION OF THE ENERGY MULTIPLE - MAY 2015

		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
04/30 22:30	05/01 22:30	10,25	246000	70,8	36000	32400	103,4	0.0	2,03E+07	82,6
05/01 22:30	05/02 22:30	10,29	247000	69,1	36000	32400	103,9	0.0	2,03E+07	82,3
05/02 22:30	05/03 22:30	10,29	247000	71,4	36000	32400	103,9	0.0	2,03E+07	82,3
05/03 22:30	05/04 22:30	9,96	239000	69,7	35000	31500	103,9	0.0	1,98E+07	82,7
05/04 22:30	05/05 22:30	10,67	256000	71,4	36000	32400	103,4	0.0	2,03E+07	79,4
05/05 22:30	05/06 22:30	10,29	247000	70,3	36000	32400	103,4	0.0	2,03E+07	82,3
05/06 22:30	05/07 22:30	10,21	245000	70,3	35000	31500	103,9	0.0	1,98E+07	80,7
05/07 22:30	05/08 22:30	10,12	243000	70,3	36000	32400	103,9	0.0	2,03E+07	83,7
05/08 22:30	05/09 22:30	10,25	246000	70,8	36000	32400	104,5	0.0	2,03E+07	82,6
05/09 22:30	05/10 22:30	9,96	239000	73,1	36000	32400	104,5	0.0	2,03E+07	85,1
05/10 22:30	05/11 22:30	10,33	248000	70,3	32000	28800	104,5	0.0	1,81E+07	72,9
05/11 22:30	05/12 22:30	10,33	244000	71,4	34000	30600	104,5	0.0	1,92E+07	78,7
05/12 22:30	05/13 22:30	10,29	245000	70,8	35000	31500	104,5	0.0	1,98E+07	80,7
05/13 22:30	05/14 22:30	10,25	246000	70,3	36000	32400	104,5	0.0	2,03E+07	82,6
05/14 22:30	05/15 22:30	10,21	245000	70,8	34000	30600	104,5	0.0	1,92E+07	78,4
05/15 22:30	05/16 22:30	8,67	208000	70,3	29000	26100	104,5	0.0	1,64E+07	78,7
05/16 22:30	05/17 22:30	10,28	247000	69,1	38000	34200	104,5	0.0	2,15E+07	86,9

Annexe 1: DAILY VALUATION OF THE ENERGY MULTIPLE - MAY 2015

		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
05/17 22:30	05/18 22:30	10	240000	70,3	29000	26100	104,5	0.0	1,64E+07	68,2
05/18 22:30	05/19 22:30	10,39	249600	70,8	30000	27000	104,5	0.0	1,69E+07	67,9
05/19 22:30	05/20 22:30	10,22	245100	70,3	36000	32400	104,5	0.0	2,03E+07	82,9
05/20 22:30	05/21 22:30	10,09	242100	69,7	36000	32400	105,1	0.0	2,03E+07	84,0
05/21 22:30	05/22 22:30	10,17	244000	81,5	38000	34200	105,1	0.0	2,15E+07	88,0
05/22 22:30	05/23 22:30	10,22	245200	78,4	34000	30600	104,5	0.0	1,92E+07	78,3
05/23 22:30	05/24 22:30	10,46	251000	78,4	36000	32400	104,5	0.0	2,03E+07	81,0
05/24 22:30	05/25 22:30	10,29	247000	76,8	36000	32400	104,5	0.0	2,03E+07	82,3
05/25 22:30	05/26 22:30	10,38	249000	78,4	36000	32400	104,5	0.0	2,03E+07	81,7
05/26 22:30	05/27 22:30	10,59	254000	80	36000	32400	104,5	0.0	2,03E+07	80,0
05/27 22:30	05/28 22:30	9,75	234000	81,5	36000	32400	104,5	0.0	2,03E+07	86,9
05/28 22:30	05/29 22:30	10,38	249000	80	36000	32400	104,5	0.0	2,03E+07	81,7
05/29 22:30	05/30 22:30	9,17	220000	83	36000	32400	104,5	0.0	2,03E+07	92,4
05/30 22:30	05/31 22:30	9,67	232000	80	36000	32400	104,5	0.0	2,03E+07	87,6

Annexe 2: DAILY VALUATION OF THE ENERGY MULTIPLE - JUNE 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
05/31 22:30	06/01 22:30	7791,7	187000	69,1	22000	19800	104,5	0.0	1,24E+07	66,4
06/01 22:30	06/02 22:30	9208,3	221000	71,4	27000	24300	104,5	0.0	1,52E+07	69,0
06/02 22:30	06/03 22:30	8458,3	203000	69,7	26000	23400	104,5	0.0	1,47E+07	72,3
06/03 22:30	06/04 22:30	6750,0	162000	71,4	27000	24300	104,5	0.0	1,52E+07	94,1
06/04 22:30	06/05 22:30	7750,0	186000	70,3	27000	24300	103,9	0.0	1,52E+07	82,0
06/05 22:30	06/06 22:30	9750,0	234000	70,3	36000	32400	104,5	0.0	2,03E+07	86,9
06/06 22:30	06/07 22:30	8916,7	214000	70,3	36000	32400	104,5	0.0	2,03E+07	95,0
06/07 22:30	06/08 22:30	8125,0	195000	70,8	36000	32400	103,4	0.0	2,03E+07	104,3
06/08 22:30	06/09 22:30	8000,0	192000	70,3	27000	24300	103,4	0.0	1,52E+07	79,4
06/09 22:30	06/10 22:30	7958,3	191000	70,3	18000	16200	103,9	0.0	1,02E+07	53,2
06/10 22:30	06/11 22:30	8083,3	194000	69,1	36000	32400	103,4	0.0	2,03E+07	104,8
06/11 22:30	06/12 22:30	8375,0	201000	70,3	27000	24300	103,9	0.0	1,52E+07	75,9
06/12 22:30	06/13 22:30	8875,0	213000	69,7	27000	24300	104,5	0.0	1,52E+07	71,6
06/13 22:30	06/14 22:30	8208,3	197000	71,4	27000	24300	103,9	0.0	1,52E+07	77,4
06/14 22:30	06/15 22:30	8541,7	205000	69,7	33000	29700	103,9	0.0	1,86E+07	90,9
06/15 22:30	06/16 22:30	8458,3	203000	70,3	36000	32400	103,9	0.0	2,03E+07	100,2
06/16 22:30	06/17 22:30	8416,7	202000	70,3	36000	32400	103,9	0.0	2,03E+07	100,6

Annexe 2: DAILY VALUATION OF THE ENERGY MULTIPLE - JUNE 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
06/17 22:30	06/18 22:30	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/18 22:30	06/19 22:30	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/19 22:30	06/20 22:30	8416,7	202000	68,6	36000	32400	103,9	0.0	2,03E+07	100,6
06/20 22:30	06/21 22:30	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/21 22:30	06/22 22:30	8375,0	201000	68,5	34000	30600	103,9	0.0	1,92E+07	95,5
06/22 22:30	06/23 22:30	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/23 22:30	06/24 22:30	8500,0	204000	69,1	36000	32400	103,9	0.0	2,03E+07	99,7
06/24 22:30	06/25 22:30	8458,3	203000	69,2	36000	32400	104,5	0.0	2,03E+07	100,2
06/25 22:30	06/26 22:30	8500,0	204000	69,7	36000	32400	104,5	0.0	2,03E+07	99,7
06/26 22:30	06/27 22:30	8583,3	206000	70,2	26000	23400	104,5	0.0	1,47E+07	71,3
06/27 22:30	06/28 22:30	8750,0	210000	70,8	36000	32400	104,5	0.0	2,03E+07	96,8
06/28 22:30	06/29 22:30	8750,0	210000	68,5	36000	32400	104,5	0.0	2,03E+07	96,8
06/29 22:30	06/30 22:30	8541,7	205000	69,1	36000	32400	103,9	0.0	2,03E+07	99,2

Annexe 3: DAILY VALUATION OF THE ENERGY MULTIPLE - JULY 2015										
		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
06/30 22:30	07/01 22:30	8500,0	204000	75,3	36000	32400	103,9	0.0	2,03E+07	99,7
07/01 22:30	07/02 22:30	8541,7	205000	69,1	36000	32400	103,9	0.0	2,03E+07	99,2
07/02 22:30	07/03 22:30	8583,3	206000	71,4	36000	32400	103,9	0.0	2,03E+07	98,7
07/03 22:30	07/04 22:30	8458,3	203000	73,7	36000	32400	103,9	0.0	2,03E+07	100,2
07/04 22:30	07/05 22:30	8333,3	200000	75,3	36000	32400	104,4	0.0	2,03E+07	101,7
07/05 22:30	07/06 22:30	8500,0	204000	70,3	36000	32400	103,3	0.0	2,03E+07	99,7
07/06 22:30	07/07 22:30	8416,7	202000	70,3	36000	32400	103,3	0.0	2,03E+07	100,6
07/07 22:30	07/08 22:30	8416,7	202000	70,3	36000	32400	102,8	0.0	2,03E+07	100,6
07/08 22:30	07/09 22:30	8500,0	204000	70,3	36000	32400	103,9	0.0	2,03E+07	99,7
07/09 22:30	07/10 22:30	8500,0	204000	73,1	36000	32400	103,9	0.0	2,03E+07	99,7
07/10 22:30	07/11 22:30	8333,3	200000	75,3	36000	32400	103,9	0.0	2,03E+07	101,7
07/11 22:30	07/12 22:30	8458,3	203000	71,4	36000	32400	104,4	0.0	2,03E+07	100,2
07/12 22:30	07/13 22:30	8458,3	203000	70,8	32000	28800	104,3	0.0	1,81E+07	89,0
07/13 22:30	07/14 22:30	8500,0	204000	75,3	36000	32400	103,9	0.0	2,03E+07	99,7
07/14 22:30	07/15 22:30	8708,3	209000	75,3	36000	32400	103,9	0.0	2,03E+07	97,3
07/15 22:30	07/16 22:30	8666,7	208000	70,3	36000	32400	103,5	0.0	2,03E+07	97,7
07/16 22:30	07/17 22:30	8708,3	209000	67,43	36000	32400	103,5	0.0	2,03E+07	97,3

Annexe 3: DAILY VALUATION OF THE ENERGY MULTIPLE - JULY 2015

		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
07/17 22:30	07/18 22:30	8708,3	209000	69,7	36000	32400	103,9	0.0	2,03E+07	97,3
07/18 22:30	07/19 22:30	8708,3	209000	75,3	36000	32400	103,5	0.0	2,03E+07	97,3
07/19 22:30	07/20 22:30	8666,7	208000	73,7	36000	32400	103,9	0.0	2,03E+07	97,7
07/20 22:30	07/21 22:30	8625,0	207000	69,7	36000	32400	103,9	0.0	2,03E+07	98,2
07/21 22:30	07/22 22:30	8625,0	207000	81,5	36000	32400	103,9	0.0	2,03E+07	98,2
07/22 22:30	07/23 22:30	8541,7	205000	78,4	36000	32400	103,5	0.0	2,03E+07	99,2
07/23 22:30	07/24 22:30	8583,3	206000	78,4	36000	32400	103,9	0.0	2,03E+07	98,7
07/24 22:30	07/25 22:30	8500,0	204000	76,8	36000	32400	103,9	0.0	2,03E+07	99,7
07/25 22:30	07/26 22:30	8500,0	204000	78,4	36000	32400	103,5	0.0	2,03E+07	99,7
07/26 22:30	07/27 22:30	9125,0	219000	78,4	36000	32400	103,5	0.0	2,03E+07	92,8
07/27 22:30	07/28 22:30	6083,3	146000	81,5	36000	32400	103,9	0.0	2,03E+07	139,3
07/28 22:30	07/29 22:30	6458,3	155000	75,3	31000	27900	103,5	0.0	1,75E+07	113,0
07/29 22:30	07/30 22:30	5958,3	143000	83,1	27000	24300	103,5	0.0	1,52E+07	106,6
07/30 22:30	07/31 22:30	6375,0	153000	80	36000	32400	103,9	0.0	2,03E+07	132,9

Annex 7: DAILY VALUATION OF THE ENERGY MULTIPLE - NOVEMBER 2015										
		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
10/31 22:30	11/01 22:30	11125,0	267000	71.1	36000	32400	104,4	0.0	2,03E+07	76,1
11/01 22:30	11/02 22:30	11125,0	267000	71.1	36000	32400	104,4	0.0	2,03E+07	76,1
11/02 22:30	11/03 22:30	11041,7	265000	71.1	36000	32400	104,4	0.0	2,03E+07	76,7
11/03 22:30	11/04 22:30	11208,3	269000	71.1	36000	32400	104,4	0.0	2,03E+07	75,6
11/04 22:30	11/05 22:30	11208,3	269000	71.1	36000	32400	104,3	0.0	2,03E+07	75,6
11/05 22:30	11/06 22:30	11208,3	269000	71.1	36000	32400	104,1	0.0	2,03E+07	75,6
11/06 22:30	11/07 22:30	11125,0	267000	71.1	36000	32400	104,4	0.0	2,03E+07	76,1
11/07 22:30	11/08 22:30	10958,3	263000	71.1	36000	32400	104,4	0.0	2,03E+07	77,3
11/08 22:30	11/09 22:30	11000,0	264000	71.1	39000	35100	104,4	0.0	2,20E+07	83,4
11/09 22:30	11/10 22:30	10958,3	263000	71.1	36000	32400	104,4	0.0	2,03E+07	77,3
11/10 22:30	11/11 22:30	10958,3	263000	71.1	36000	32400	104,4	0.0	2,03E+07	77,3
11/11 22:30	11/12 22:30	10916,7	262000	71.1	36000	32400	104,4	0.0	2,03E+07	77,6
11/12 22:30	11/13 22:30	11166,7	268000	71.1	36000	32400	104,4	0.0	2,03E+07	75,9
11/13 22:30	11/14 22:30	11125,0	267000	71.1	36000	32400	103,7	0.0	2,03E+07	76,1
11/14 22:30	11/15 22:30	11333,3	272000	71.1	36000	32400	104,4	0.0	2,03E+07	74,7
11/15 22:30	11/16 22:30	11333,3	272000	71.1	36000	32400	104,1	0.0	2,03E+07	74,7
11/16 22:30	11/17 22:30	11375,0	273000	71.1	36000	32400	103,6	0.0	2,03E+07	74,5

Annex 7: DAILY VALUATION OF THE ENERGY MULTIPLE - NOVEMBER 2015										
		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
11/17 22:30	11/18 22:30	11083,3	266000	71,1	36000	32400	103,6	0.0	2,03E+07	76,4
11/18 22:30	11/19 22:30	11404,2	273700	71,1	36000	32400	103,6	0.0	2,03E+07	74,3
11/19 22:30	11/20 22:30	11358,3	272600	71,1	36000	32400	103,7	0.0	2,03E+07	74,6
11/20 22:30	11/21 22:30	11266,7	270400	71,1	36000	32400	103,9	0.0	2,03E+07	75,2
11/21 22:30	11/22 22:30	11262,5	270300	71,1	36000	32400	103,6	0.0	2,03E+07	75,2
11/22 22:30	11/23 22:30	11333,3	272000	71,1	36000	32400	103,6	0.0	2,03E+07	74,7
11/23 22:30	11/24 22:30	11291,7	271000	71,1	36000	32400	103,5	0.0	2,03E+07	75,0
11/24 22:30	11/25 22:30	11291,7	271000	71,1	36000	32400	103,5	0.0	2,03E+07	75,0
11/25 22:30	11/26 22:30	11166,7	268000	71,4	36000	32400	103,7	0.0	2,03E+07	75,9
11/26 22:30	11/27 22:30	11083,3	266000	71,4	36000	32400	103,9	0.0	2,03E+07	76,4
11/27 22:30	11/28 22:30	11125,0	267000	71,1	36000	32400	103,9	0.0	2,03E+07	76,1
11/28 22:30	11/29 22:30	11083,3	266000	71,1	36000	32400	103,9	0.0	2,03E+07	76,4
11/29 22:30	11/30 22:30	11083,3	266000	71,1	36000	32400	104,5	0.0	2,03E+07	76,4

Annexe 4: DAILY VALUATION OF THE ENERGY MULTIPLE - AUGUST 2015										
		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
07/31 22:30	08/01 22:30	6291,7	151000	76,8	36000	32400	103	0.0	2,03E+07	134,6
08/01 22:30	08/02 22:30	6208,3	149000	68,6	36000	32400	103,9	0.0	2,03E+07	136,4
08/02 22:30	08/03 22:30	6125,0	147000	68,6	27000	24300	103,5	0.0	1,52E+07	103,7
08/03 22:30	08/04 22:30	5750,0	138000	68,6	27000	24300	103,5	0.0	1,52E+07	110,5
08/04 22:30	08/05 22:30	6458,3	155000	69,1	27000	24300	103,9	0.0	1,52E+07	98,4
08/05 22:30	08/06 22:30	6291,7	151000	70,3	36000	32400	103,9	0.0	2,03E+07	134,6
08/06 22:30	08/07 22:30	6291,7	151000	70,3	36000	32400	103,9	0.0	2,03E+07	134,6
08/07 22:30	08/08 22:30	5958,3	143000	70,8	36000	32400	103,5	0.0	2,03E+07	142,2
08/08 22:30	08/09 22:30	5708,3	137000	70,3	27000	24300	103,5	0.0	1,52E+07	111,3
08/09 22:30	08/10 22:30	5875,0	141000	69,7	27000	24300	103,5	0.0	1,52E+07	108,1
08/10 22:30	08/11 22:30	6125,0	147000	70,3	27000	24300	103,5	0.0	1,52E+07	103,7
08/11 22:30	08/12 22:30	6166,7	148000	69,7	29000	26100	103,5	0.0	1,64E+07	110,7
08/12 22:30	08/13 22:30	6125,0	147000	69,1	29000	26100	103,9	0.0	1,64E+07	111,4
08/13 22:30	08/14 22:30	6125,0	147000	69,7	29000	26100	103,9	0.0	1,64E+07	111,4
08/14 22:30	08/15 22:30	6125,0	147000	69,7	29000	26100	103,9	0.0	1,64E+07	111,4
08/15 22:30	08/16 22:30	6083,3	146000	69,7	29000	26100	103,5	0.0	1,64E+07	112,2
08/16 22:30	08/17 22:30	6125,0	147000	69,7	29000	26100	103,5	0.0	1,64E+07	111,4

Annexe 4: DAILY VALUATION OF THE ENERGY MULTIPLE - AUGUST 2015

		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
08/17 22:30	08/18 22:30	5958,3	143000	69,7	29000	26100	103,5	0.0	1,64E+07	114,5
08/18 22:30	08/19 22:30	5666,7	136000	66,7	29000	26100	103,5	0.0	1,64E+07	120,4
08/19 22:30	08/20 22:30	5625,0	135000	65,9	29000	26100	103	0.0	1,64E+07	121,3
08/20 22:30	08/21 22:30	5625,0	135000	62	29000	26100	103,9	0.0	1,64E+07	121,3
08/21 22:30	08/22 22:30	5666,7	136000	60,9	27000	24300	103,9	0.0	1,52E+07	112,1
08/22 22:30	08/23 22:30	5708,3	137000	65,9	27000	24300	103,9	0.0	1,52E+07	111,3
08/23 22:30	08/24 22:30	5666,7	136000	65,9	27000	24300	103,9	0.0	1,52E+07	112,1
08/24 22:30	08/25 22:30	5666,7	136000	60,9	27000	24300	103,5	0.0	1,52E+07	112,1
08/25 22:30	08/26 22:30	5625,0	135000	60,2	27000	24300	103,5	0.0	1,52E+07	113,0
08/26 22:30	08/27 22:30	5625,0	135000	59,8	27000	24300	103,9	0.0	1,52E+07	113,0
08/27 22:30	08/28 22:30	5583,3	134000	59,0	27000	24300	103,9	0.0	1,52E+07	113,8
08/28 22:30	08/29 22:30	5583,3	134000	56,8	27000	24300	103,5	0.0	1,52E+07	113,8
08/29 22:30	08/30 22:30	5625,0	135000	62,8	27000	24300	103,5	0.0	1,52E+07	113,0
08/30 22:30	08/31 22:30	5625,0	135000	58,5	27000	24300	103,9	0.0	1,52E+07	113,0

Annexe 5: DAILY VALUATION OF THE ENERGY MULTIPLE - SEPTEMBER 2015										
		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
08/31 22:30	09/01 22:30	5583,3	134000	56,4	27000	24300	103,5	0.0	1,52E+07	113,8
09/01 22:30	09/02 22:30	5625,0	135000	58	27000	24300	103,5	0.0	1,52E+07	113,0
09/02 22:30	09/03 22:30	5583,3	134000	58	27000	24300	103,5	0.0	1,52E+07	113,8
09/03 22:30	09/04 22:30	5666,7	136000	58	27000	24300	103,8	0.0	1,52E+07	112,1
09/04 22:30	09/05 22:30	5625,0	135000	58	27000	24300	103,8	0.0	1,52E+07	113,0
09/05 22:30	09/06 22:30	5708,3	137000	58	27000	24300	103,8	0.0	1,52E+07	111,3
09/06 22:30	09/07 22:30	5708,3	137000	58	27000	24300	104,2	0.0	1,52E+07	111,3
09/07 22:30	09/08 22:30	5708,3	137000	58	27000	24300	104,2	0.0	1,52E+07	111,3
09/08 22:30	09/09 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/09 22:30	09/10 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/10 22:30	09/11 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/11 22:30	09/12 22:30	5583,3	134000	58	27000	24300	104,2	0.0	1,52E+07	113,8
09/12 22:30	09/13 22:30	5625,0	135000	58	28000	25200	104,2	0.0	1,58E+07	117,1
09/13 22:30	09/14 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/14 22:30	09/15 22:30	5583,3	134000	58	27000	24300	103,8	0.0	1,52E+07	113,8
09/15 22:30	09/16 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/16 22:30	09/17 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0

Annexe 5: DAILY VALUATION OF THE ENERGY MULTIPLE - SEPTEMBER 2015										
		average power supply (w)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
09/17 22:30	09/18 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/18 22:30	09/19 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/19 22:30	09/20 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/20 22:30	09/21 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/21 22:30	09/22 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/22 22:30	09/23 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/23 22:30	09/24 22:30	5583,3	134000	58	27000	24300	104,2	0.0	1,52E+07	113,8
09/24 22:30	09/25 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/25 22:30	09/26 22:30	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/26 22:30	09/27 22:30	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/27 22:30	09/28 22:30	6166,7	148000	58	28000	25200	104,2	0.0	1,58E+07	106,8
09/28 22:30	09/29 22:30	6104,2	146500	58	27000	24300	104,2	0.0	1,52E+07	104,1
09/29 22:30	09/30 22:30	5687,5	136500	58	27000	24300	104,2	0.0	1,52E+07	111,7

From: fabiopenon@iol.it
Sent: Thursday, October 22, 2015 12:40 PM
To: tdarden@industrialheat.co; ar.123@mail.com
Subject: report
Attachments: attachment-1.pdf; attachment-2.pdf; attachment-3.pdf

Dear Sirs,

please find attached the report of my last check of the 1 Mw plant in the factory of Doral.

I am sending it to you in advance by e-mail, while the paper copy will be mailed by registered mail to both of you.

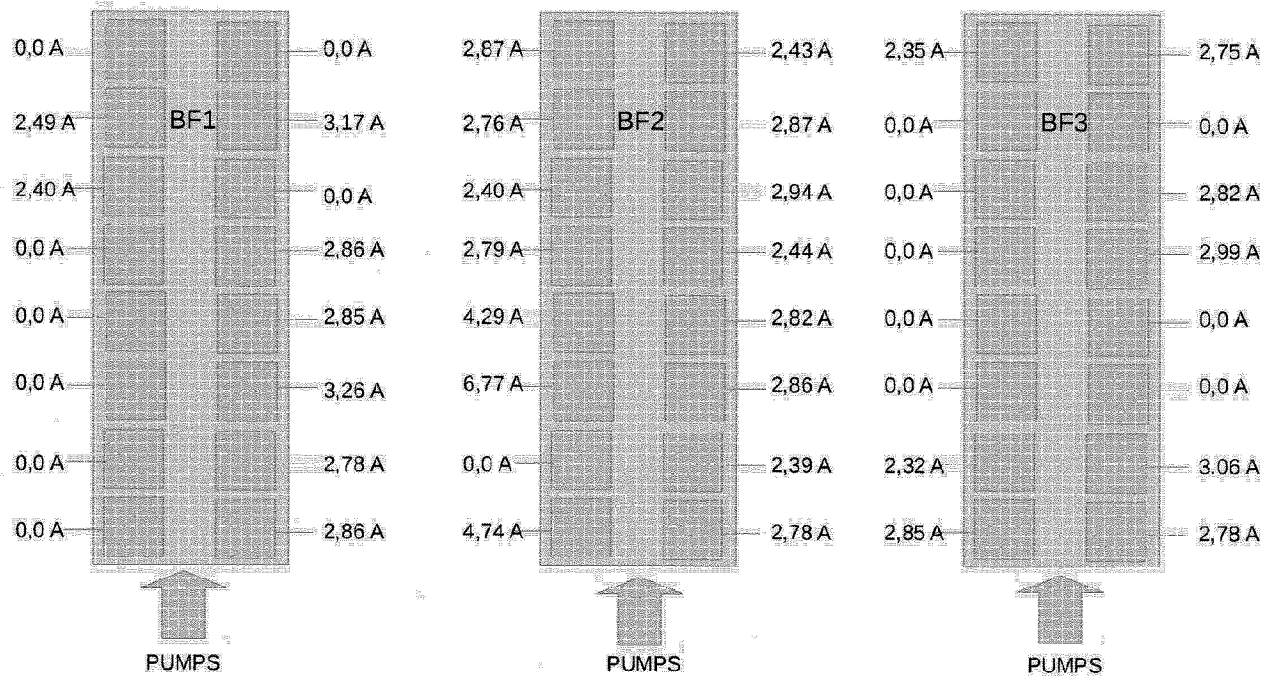
Sincerely

M. Eng. Fabio Penon

MW1-USA ELECTRICAL MESUREMENT in reactors BF1,BF2,BF3

Clamp: MASTECH S.N.: MBEI 053309

Date: 10/14/2015 time: 10:20AM



STAFF present at measurements

Dr. Ing. Fabio Penon (ERV)

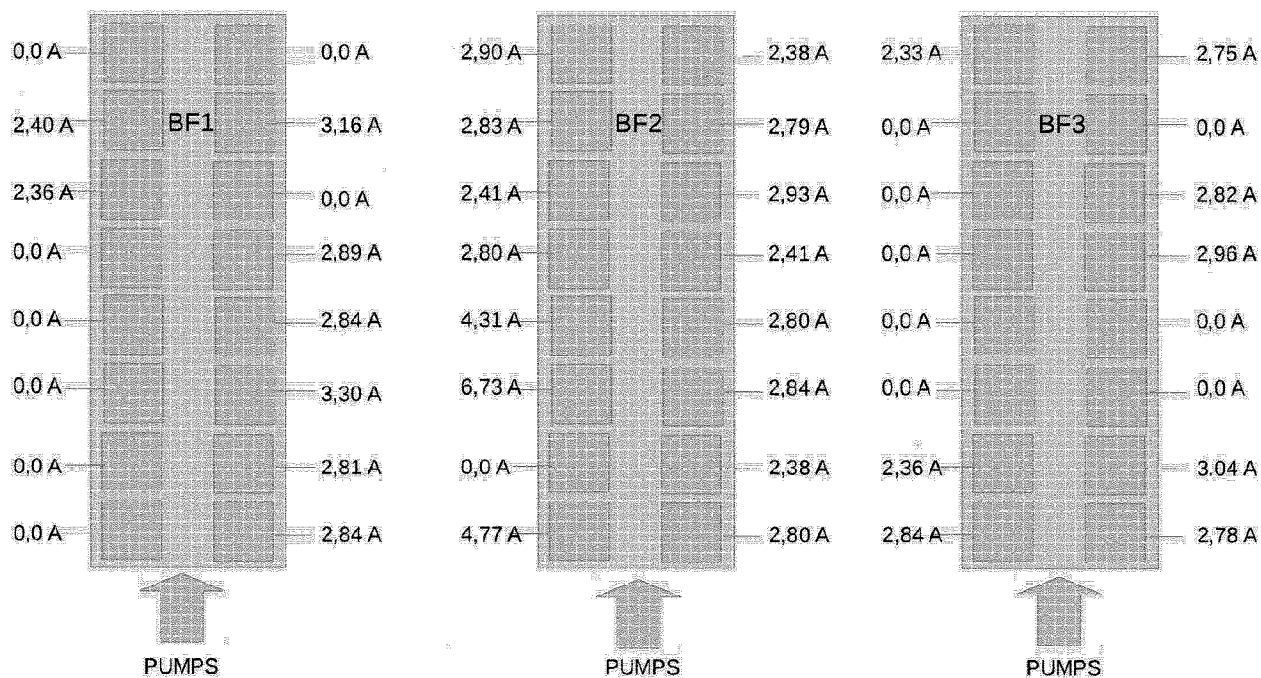
M.Eng. Fulvio Fabiani (Designer)

Barry West (Chief Electrical Maintenance)

MW1-USA ELECTRICAL MESUREMENT in reactors BF1,BF2,BF3

Clamp: MASTECH S.N.: MBEI 053309

Date: 10/13/2015 time: 11:00AM



STAFF present at mesurements:

Dr. Ing. Fabio Penon (ERV)

M.Eng. Fulvio Fabiani (Designer)

Barry West (Chief Electrical Maintenance)

E-CAT MW1 ENERGY PLANT IN MIAMI ENERGY MULTIPLE VALUATION: SECOND STEP

The ERV visited the MW1 – USA plant at Doral on October 12 - 14, 2015.

The visit was without notice, in accordance with the e-mail dated 02/20/2015

He verified that the plant configuration and the measuring chains were not modified in relation with the ones controlled in february and in may

He verified also the consistency of the experimental data and made a first approximation calculation of the energy multiple during his visit.

He checked the current absorption in the reactors BF1, BF2 and BF3.

During his visit, the ERV was assisted by M. Eng. F. Fabiani (IH), Eng. B. West (IH) and by doc. A. Rossi (LC).

1. Plant configuration and measuring instruments positioning

No significant modification on the plant configuration and on the measuring chains positioning was revealed.

2. Data recording

The measuring systems collect the following data every ten seconds: power supply (Kw), water temperature in the inner tank (°C), steam temperature (°C) and steam pressure (bar) in the pipe going to customer plant.

All data are recorded in a data logger

Only the mass of water (m³), flowed through the plant, is recorded manually once in a day at 10.30 p.m.

In the logbook the E-Cat each addition of distilled water from external tank to an internal tank is registered.

On 10/13/2015 and 10/14/2015 a control of absorption of instantaneous current in the reactors BF1, BF1 and BF3 has been performed manually

3. Data analysis

The data analysis shows that steam pressure has been about 0,0 bar throughout the period 10/12 – 10/14.

The steam temperature, manually checked, has been about 103 – 104 °C during the same period, i.e. the steam has been always superheated steam.

The water temperature, manually checked, has been between 60 – 80 °C during the same period.

The energy produced by E-Cat plant is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_p = E_R + E_V + E_S$$

Assuming the same conservative criteria for the calculations made in the past, i.e.

- it has not been taken into account the heating energy of water and the heating energy of steam
- the temperature of the incoming water has been always considered to be equal to the maximum value of the same, measured during the entire test day
- the total mass of water transited during the test period has been reduced by 10%, to take into account the small leaks of water to the inside of the shelter and the measurement uncertainties

the energy produced by the E-Cat plant is:

$$E_p = E_v = \lambda \times M_w$$

where

M_w = total mass of water, flowed through the system in one day, reduced by 10%.

λ = (latent energy of vaporization) = 627,5 Wh/kg at 0. bar

In order to be conservative all the absorbed energy (E_A) has supposed be absorbed by the 111 reactors

In reality a part of this energy feeds the pump, which conveys the water from the tank external to the reactors This energy doesn't feed the reactors

$$\text{Energy multiple} = \frac{\text{energy produced (} E_p \text{)}}{\text{energy absorbed (} E_A \text{)}}$$

The energy multiple value has been always about 74.

4. Annexes

Annexe 1: MW1-USA Electrical measurement in reactors BF1, BF2, BF3. 10/13/2015

Annexe 2: MW1-USA Electrical measurement in reactors BF1, BF2, BF3. 10/14/2015

Abano Terme, 10/19/2015

POIESIS srl
M. Eng. Fabio Penon
(Nuclear Engineer)

From: fabiopenon@iol.it
Sent: Thursday, May 28, 2015 1:54 PM
To: tdarden@industrialheat.co; ar.123@mail.com
Subject: reports
Attachments: attachment-1.pdf; attachment-2.pdf; attachment-3.pdf; attachment-4.pdf; attachment-5.pdf; attachment-6.pdf; attachment-7.pdf

Dear Sirs,

In accordance with the provisions of the License Agreement between Industrial Heat LLC and Leonardo Corporation, in order to complete the Validation of the Plant (1MW E-CAT Unit), the ERV (Expert Responsible for the Validation) ing Fabio Penon, engaged by Industrial Heat LLC and Leonardo Corporation, must certify in writing that the Plant operates at the same level (or better) at which Validation, made in the factory of Leonardo in Ferrara (Italy), was achieved for a period of 350 days (even if not consecutive) within a 400 days period.

Therefore, the ERV declares that the Plant has started to operate since February 24th, 2015, because the energy multiple valuation has started since that above mentioned day.

In accordance with the proposal 'E-Cat MW1 USA Energy plant in Miami: Energy multiple evaluation', dated January 28 2015, e-mailed on the February 3rd 2015 to Industrial Heat LLC and Leonardo Corporation, and with the report 'E-Cat MW1 Energy plant in Miami: tests plan', dated February 09, 2015 and e-mailed to Industrial Heat LLC and to Leonardo Corporation on February 10th 2015, the ERV has written the reports, indicated in module 2 and in module 3 of the proposal.

The report 'E-Cat MW1 - Energy plant in Miami: plant start up' shows the plant configuration and measuring instruments positioning, the start up procedure and the data recording

The report 'E-Cat MW1 – Energy plant in Miami: energy multiple valuation, first step' shows the energy multiple, valuted during the period February 24th-May 19th 2015.

All the reports are sent by mail and by certified letter with return received to Industrial Heat LLC and to Leonardo Corporation

Yours sincerely

Fabio Penon M.E.

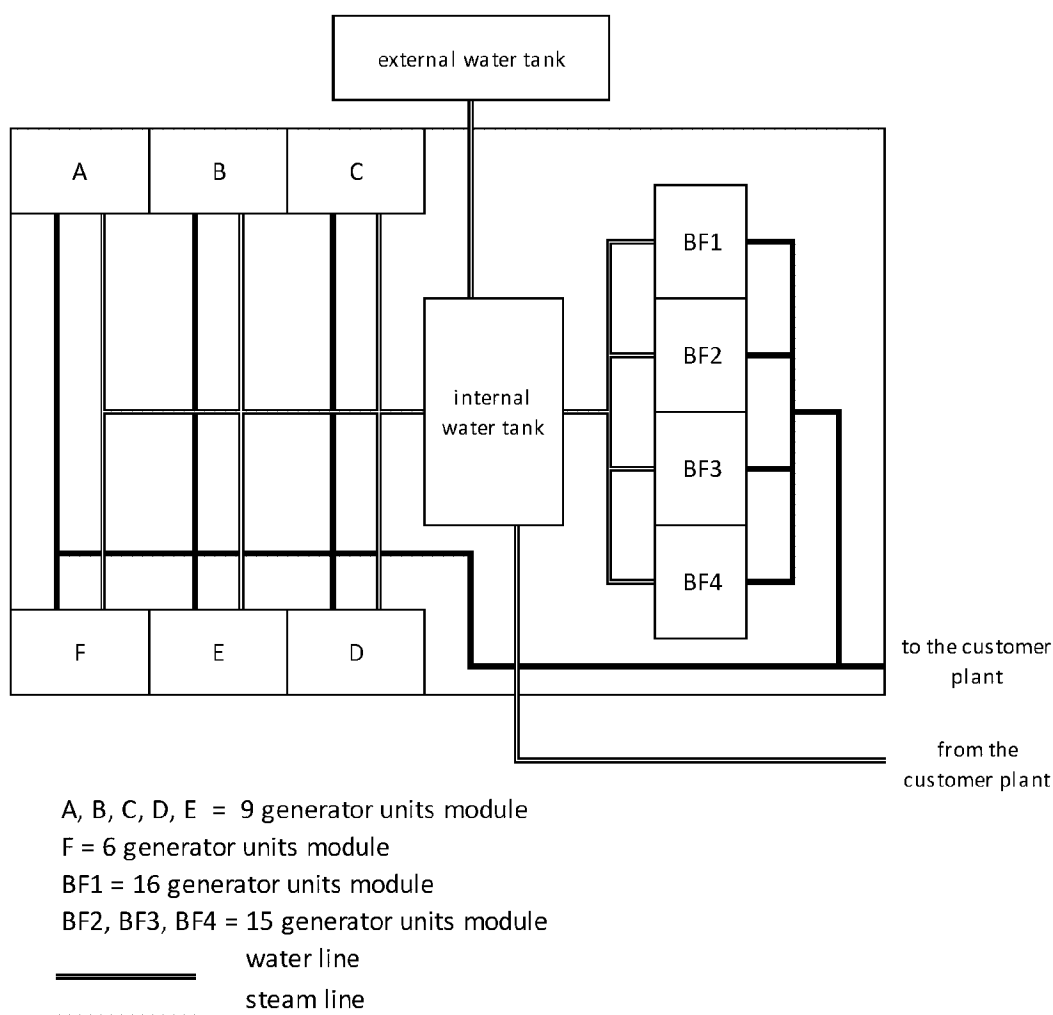
E-CAT MW1 ENERGY PLANT IN MIAMI PLANT START UP

The ERV visited the MW1 – USA plant at Doral on February 16 -18, 2015
He verified the compliance of the plant configuration and of the measuring chains with reference documentation.
During his visit, the ERV was assisted by ing. F. Fabiani and by doc. A. Rossi.

1. Plant configuration and measuring instruments positioning

The thermohydraulic diagram of the plant is represented in figure 1.
The plant is composed of 112 units of energy generation, grouped in modules: 111 units are operational during the tests, one unit is used as spare part.
In figure 1 the configuration of every module is reported

Figure 1: Thermohydraulic diagram of the plant



The cooling water is conveyed by pumps in the units E-Cat, where it is heated to vaporize. The steam is conveyed in a unique pipe of the steam line, which conveys it outside of the shelter.

The steam is then passed through the customer's installation, where it cools up to its condensation.

The water is so recycled to the internal tank in a closed loop. The water is distilled water.

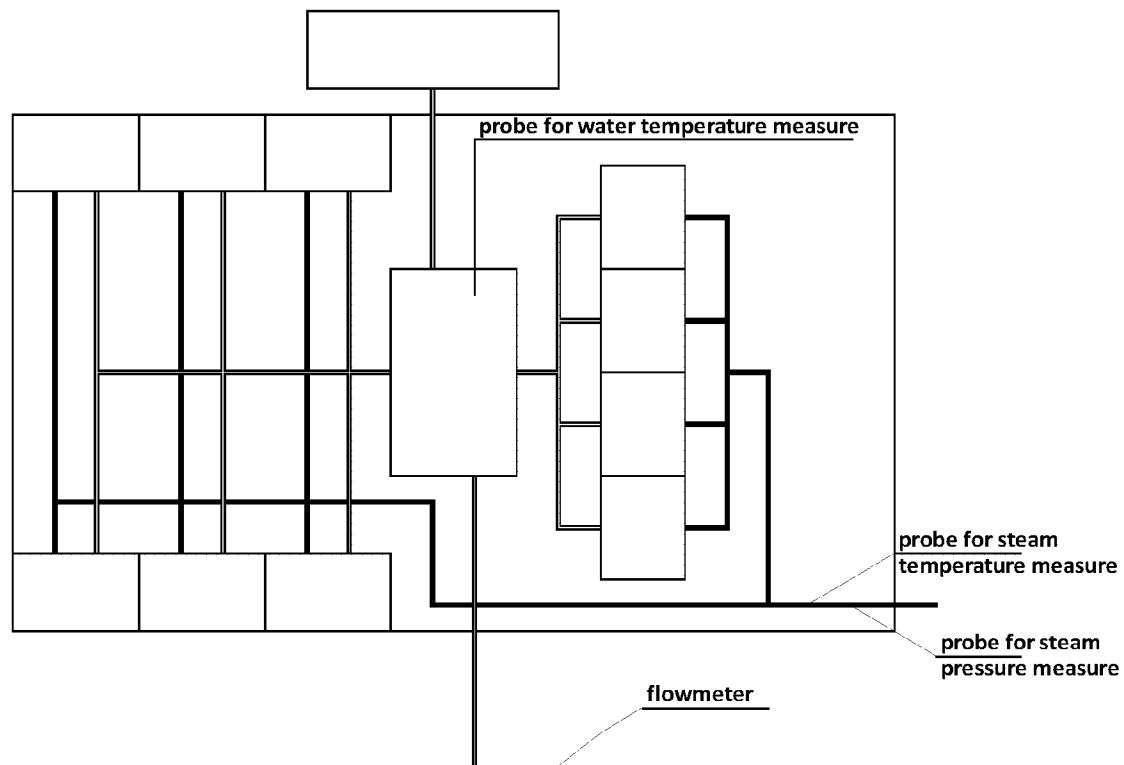
The internal tank is connected with the external one.

By this way it is possible to refill refrigerant leaks during operation.

The amount of water refilled is recorded

Figure 2 shows where the instrumentation to measure thermohydraulic characteristics is positioned in the thermohydraulic circuit

Figure 2: Position of the thermohydraulic measuring instrumentation



Identification of thermohydraulic measuring instrumentation

- Flowmeter, APATOR, type MWN 130-80 NC, type n. 15305714, test report n. 01/2015, issue date 01/15/2015
- Thermocouple for water temperature measure, OMEGA, type n HSTC-TT-TI-24S-1M, id. n. T4, certificate n. M16758, issue date 02/13/2015

- Digital Thermometer and Probe for steam temperature measure, OMEGA, type n. HH806AU, HTSC-TT-TI-24S-1M-SMPW-M and TC-T-NPT-U-72-SMP, s.n. 140124 (HH806AU), certificate number M16760, issue date 02/13/2015
- Probe for steam temperature measure , OMEGA, T Probe, Type TC-T-NPT-U-72, type n. T3, certificate number M16759, issue date 02/13/2015
- Digital manometer, KELLER, type LEO1, type n. 43407, certificate n. RTV-MA-0141-15, issue date 03/16/2015

Annexe 1 shows wiring diagram and where the instrumentation to measure electrical characteristics is positioned in the electrical circuit

Identification electrical measuring instrumentation

- Power analyzer, PCE, type PCE-830, type n. 12080171, clamp model 6801, type n. 12020682, 12020677, 12020676, certificate n. 0518/15, issue date 01/28/2015.
- Power analyzer, PCE, type PCE-830-2, type n. 15040068, clamp model 6802, type n. 15060298, 15060299, 15060300, certificate n. 3934/15, issue date 04/20/2015.

2. Start up procedure

- Every power generation unit is filled with distilled water, coming from inner tank. until the water level is the desired.

The internal tank is filled with distilled water coming from external tank, until the water level in the inner tank is equal to the initial one.

- The hydraulic circuit is closed to see if there are leaks in the E-Cat plant or in the customer's one.

All the leaked water is refilled with water coming from external tank, until the water level in the inner tank is equal to the initial one.

- When the level of the water in the inner tank has stabilized, the hydraulic circuit is closed. The heating resistors are switched on.

Power supply is increased by 5% every 10 minutes till the desired power level

- The water in the circuit heats up to the temperature of vaporization.

When vaporization process is finished and all the water is transformed into superheated steam, after about 2 hours, the power is reduced up to that required for the stability of this situation (stability level)

- After 24 hours, a power supply cycle is started: ten minutes power supply at stability level, ten minutes no power supply

3. Data recording

The measuring systems collect the following data every ten seconds: power supply (Kw), water temperature in the inner tank (°C), steam temperature (°C) and steam pressure (bar) in the pipe going to customer plant.

All data are recorded in a data logger

Only the mass of water (m³), flowed through the plant, is recorded manually once in a day.

In the logbook the E-Cat each addition of distilled water from external tank to an internal tank is registered.

4. Data analysis

The analysis of the data on February 24th shows that steam pressure has been about 0,0 bar.

The minimum steam temperature has been 103,6 °C, i.e. the steam has been always superheated steam.

The maximum water temperature has been 69,1 °C

The effective flowed water has been 3600 kg/d, the reduced flowed water 3240 kg/d.

The supplied energy has been 247000 wh/d

The energy produced by E-Cat plant is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_p = E_R + E_V + E_S$$

In order to be conservative:

- it is not taken into account the heating energy of water and the heating energy of steam
- the temperature of the incoming water is always considered to be equal to the maximum value of the same, measured during the entire test day

It is possible small leaks of water to the inside of the shelter and are measurement uncertainties are present.

To take this into account the total mass of water transited during the test period is reduced by 10%.

Consequently

$$E_p = E_V = \lambda \times M_W$$

where

M_W = total mass of water, flowed through the system in one day, reduced by 10%.

λ = (latent energy of vaporization) = 627,5 Wh/kg at 0. bar

The absorbed energy (E_A) supplied from the public grid

In order to be conservative:

- all the supplied energy is supposed be absorbed by the 111 reactors

In reality a part of this energy feeds the pump, which conveys the water from the tank external to the reactors This energy doesn't feed the reactors

$$\text{Energy multiple (February 24, 2015)} = \frac{\text{energy produced (} E_P \text{)}}{\text{energy absorbed (} E_A \text{)}} = 82,3$$

5. Annexes

Annexe 1: Wiring diagram

Abano Terme, 2015/04/30

POIESIS srl
Dr Eng. Fabio Penon
(Nuclear Engineer)

E-CAT MW1 ENERGY PLANT IN MIAMI ENERGY MULTIPLE VALUATION: FIRST STEP

The ERV visited the MW1 – USA plant at Doral on May 18 - 20, 2015

He verified that the plant configuration and the measuring chains were not modified in relation with the ones controlled in february.

He verified also the consistency of the experimental data and calculated the energy multiple for every day, in which the plant was operating

During his visit, the ERV was assisted by ing. F. Fabiani and by doc. A. Rossi.

1. Plant configuration and measuring instruments positioning

No significant modification on the plant configuration and on the measuring chains positioning was revealed.

2. Data recording

The measuring systems collect the following data every ten seconds: power supply (Kw), water temperature in the inner tank (°C), steam temperature (°C) and steam pressure (bar) in the pipe going to customer plant.

All data are recorded in a data logger

Only the mass of water (m³), flowed through the plant, is recorded manually once in a day at 10.30 p.m.

In the logbook the E-Cat each addition of distilled water from external tank to an internal tank is registered.

3. Data analysis

The data analysis shows that steam pressure has been about 0,0 bar throughout the period from 02/24 to 05/20.

The minimum steam temperature has been about 103 – 104 °C during the same period, i.e. the steam has been always superheated steam.

The energy produced by E-Cat plant is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_p = E_R + E_V + E_S$$

In order to be conservative:

- it has not been taken into account the heating energy of water and the heating energy of steam
 - the temperature of the incoming water has been always considered to be equal to the maximum value of the same, measured during the entire test day
- There has been small leaks of water to the inside of the shelter and are present measurement uncertainties

Ing. Fabio Penon

Plant start up

To take this into account the total mass of water transited during the test period has been reduced by 10%.

Consequently

$$E_p = E_v = \lambda \times M_w$$

where

M_w = total mass of water, flowed through the system in one day, reduced by 10%.

λ = (latent energy of vaporization) = 627,5 Wh/kg at 0. bar

The absorbed energy (E_A) supplied from the public grid

In order to be conservative:

- all the supplied energy is supposed be absorbed by the 111 reactors

In reality a part of this energy feeds the pump, which conveys the water from the tank external to the reactors This energy doesn't feed the reactors

$$\text{Energy multiple} = \frac{\text{energy produced (} E_p \text{)}}{\text{energy absorbed (} E_A \text{)}}$$

Throughout the period from 02/24 to 05/19 the energy multiple value has been always above 62.

During the month of February it has been fluctuating between 78 and 82, average value 80,7

During the month of March it has been fluctuating between 78 and 87, average value 80,6

During the month of April it has been fluctuating between 62 and 87, average value 80,7

In the period May 1 to 19 it has been fluctuating between 67 and 87, average value 79,9

4. Annexes

Annexe 1: Daily valuation of the energy multiple – February 2015

Annexe 2: Daily valuation of the energy multiple – March 2015

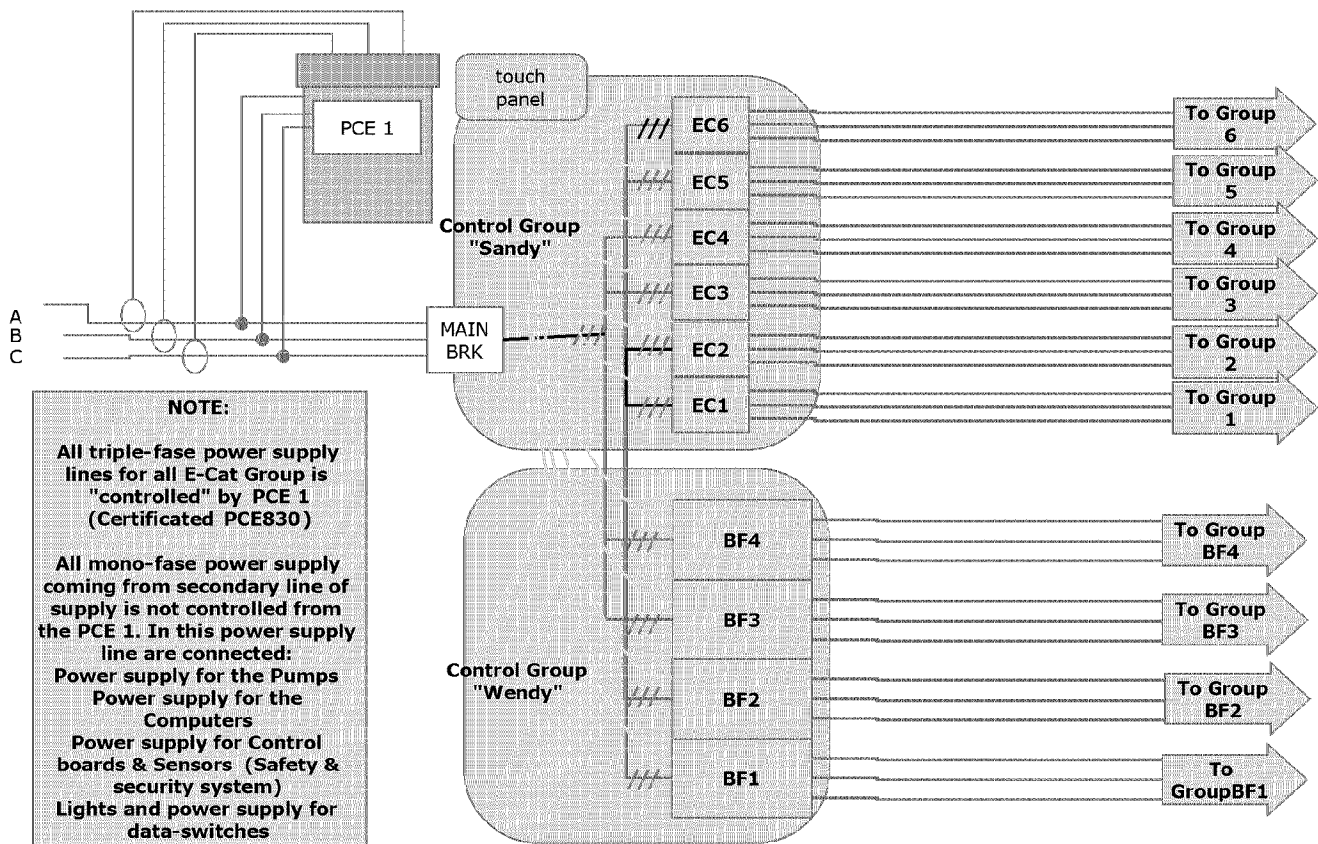
Annexe 3: Daily valuation of the energy multiple – April 2015

Annexe 4: Daily valuation of the energy multiple – May 2015

Abano Terme, 2015/05/25

POIESIS srl
Dr Eng. Fabio Penon
(Nuclear Engineer)

E-CAT POWER DIAGRAM MW1-USA February 2015



DAILY VALUATION OF THE ENERGY MULTIPLE - MAY 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
04/30 22:30	05/01 22:30	10,25	246000	70,8	36000	32400	103,4	0.0	2,03E+07	82,6
05/01 22:30	05/02 22:30	10,29	247000	69,1	36000	32400	103,9	0.0	2,03E+07	82,3
05/02 22:30	05/03 22:30	10,29	247000	71,4	36000	32400	103,9	0.0	2,03E+07	82,3
05/03 22:30	05/04 22:30	9,96	239000	69,7	35000	31500	103,9	0.0	1,98E+07	82,7
05/04 22:30	05/05 22:30	10,67	256000	71,4	36000	32400	103,4	0.0	2,03E+07	79,4
05/05 22:30	05/06 22:30	10,29	247000	70,3	36000	32400	103,4	0.0	2,03E+07	82,3
05/06 22:30	05/07 22:30	10,21	245000	70,3	35000	31500	103,9	0.0	1,98E+07	80,7
05/07 22:30	05/08 22:30	10,12	243000	70,3	36000	32400	103,9	0.0	2,03E+07	83,7
05/08 22:30	05/09 22:30	10,25	246000	70,8	36000	32400	104,5	0.0	2,03E+07	82,6
05/09 22:30	05/10 22:30	9,96	239000	73,1	36000	32400	104,5	0.0	2,03E+07	85,1
05/10 22:30	05/11 22:30	10,33	248000	70,3	32000	28800	104,5	0.0	1,81E+07	72,9
05/11 22:30	05/12 22:30	10,33	244000	71,4	34000	30600	104,5	0.0	1,92E+07	78,7
05/12 22:30	05/13 22:30	10,29	245000	70,8	35000	31500	104,5	0.0	1,98E+07	80,7
05/13 22:30	05/14 22:30	10,25	246000	70,3	36000	32400	104,5	0.0	2,03E+07	82,6
05/14 22:30	05/15 22:30	10,21	245000	70,8	34000	30600	104,5	0.0	1,92E+07	78,4
05/15 22:30	05/16 22:30	8,67	208000	70,3	29000	26100	104,5	0.0	1,64E+07	78,7
05/16 22:30	05/17 22:30	10,28	247000	69,1	38000	34200	104,5	0.0	2,15E+07	86,9

[illegible]

DAILY VALUATION OF THE ENERGY MULTIPLE - APRIL 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
03/31 22:30	04/01 22:30	10,25	246000	69,1	36000	32400	103,9	0.0	2,03E+07	82,6
04/01 22:30	04/02 22:30	10,29	247000	69,1	36000	32400	103,9	0.0	2,03E+07	82,3
04/02 22:30	04/03 22:30	10,67	256000	68,6	36000	32400	103,9	0.0	2,03E+07	79,4
04/03 22:30	04/04 22:30	10,21	247000	68	36000	32400	103,9	0.0	2,03E+07	82,3
04/04 22:30	04/05 22:30	10,29	247000	68,6	36000	32400	103,9	0.0	2,03E+07	82,3
04/05 22:30	04/06 22:30	9,96	239000	69,1	36000	32400	103,9	0.0	2,03E+07	85,1
04/06 22:30	04/07 22:30	not measured	not measured	not measured	not measured	not measured	not measured	not measured	not measured	not measured
04/07 22:30	04/08 22:30	9,92	238000	69,1	36000	32400	103,9	0.0	2,03E+07	85,4
04/08 22:30	04/09 22:30	10,54	253000	69,1	28000	25200	103,9	0.0	1,58E+07	62,5
04/09 22:30	04/10 22:30	10,55	253000	69,1	38000	34200	103,9	0.0	2,15E+07	84,8
04/10 22:30	04/11 22:30	10,75	258000	69,1	36000	32400	103,9	0.0	2,03E+07	78,8
04/11 22:30	04/12 22:30	10,64	253000	68,6	37000	33300	103,9	0.0	2,09E+07	82,6
04/12 22:30	04/13 22:30	10,67	256000	68,6	36000	32400	103,9	0.0	2,03E+07	79,4
04/13 22:30	04/14 22:30	10,64	255000	69,1	36000	32400	103,9	0.0	2,03E+07	79,7
04/14 22:30	04/15 22:30	10,5	252000	68,6	36000	32400	103,9	0.0	2,03E+07	80,7
04/15 22:30	04/16 22:30	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/16 22:30	04/17 22:30	10,59	254000	68,6	36000	32400	103,9	0.0	2,03E+07	80,0

DAILY VALUATION OF THE ENERGY MULTIPLE - APRIL 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
04/17 22:30	04/18 22:30	10,46	251000	69,1	36000	32400	103,9	0.0	2,03E+07	81,0
04/18 22:30	04/19 22:30	10,54	253000	68,6	39000	35100	103,9	0.0	2,20E+07	87,1
04/19 22:30	04/20 22:30	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/20 22:30	04/21 22:30	10,46	251000	69,7	36000	32400	103,9	0.0	2,03E+07	81,0
04/21 22:30	04/22 22:30	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/22 22:30	04/23 22:30	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/23 22:30	04/24 22:30	10,59	254000	69,1	36000	32400	103,9	0.0	2,03E+07	80,0
04/24 22:30	04/25 22:30	10,75	258000	69,1	36000	32400	103,9	0.0	2,03E+07	78,8
04/25 22:30	04/26 22:30	10,54	253000	68,6	36000	32400	103,9	0.0	2,03E+07	80,4
04/26 22:30	04/27 22:30	10,55	253000	68,6	36000	32400	103,9	0.0	2,03E+07	80,4
04/27 22:30	04/28 22:30	10,34	248000	69,1	36000	32400	103,9	0.0	2,03E+07	82,0
04/28 22:30	04/29 22:30	10,25	246000	69,1	36000	32400	103,9	0.0	2,03E+07	82,6
04/29 22:30	04/30 22:30	10,29	247000	69,7	36000	32400	103,9	0.0	2,03E+07	82,3

DAILY VALUATION OF THE ENERGY MULTIPLE - MARCH 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
02/28 22:30	03/01 22:30	10,59	254000	69,7	36000	32400	104,5	0.0	2,03E+07	80,0
04/01 22:30	04/02 22:30	10,46	251000	69,1	36000	32400	104,5	0.0	2,03E+07	81,0
03/02 22:30	03/03 22:30	9,92	238000	69,7	36000	32400	104,5	0.0	2,03E+07	85,4
03/03 22:30	03/04 22:30	10,56	253000	69,7	36000	32400	104,5	0.0	2,03E+07	80,4
03/04 22:30	03/05 22:30	10,63	255000	69,1	36000	32400	104,5	0.0	2,03E+07	79,7
03/05 22:30	03/06 22:30	10,63	255000	69,1	36000	32400	103,9	0.0	2,03E+07	79,7
03/06 22:30	03/07 22:30	10,5	252000	68,6	36000	32400	103,9	0.0	2,03E+07	80,7
03/07 22:30	03/08 22:30	10,59	259000	69,1	36000	32400	103,9	0.0	2,03E+07	78,5
03/08 22:30	03/09 22:30	10,21	245000	69,1	36000	32400	103,9	0.0	2,03E+07	83,0
03/09 22:30	03/10 22:30	10,67	256000	69,1	36000	32400	104,5	0.0	2,03E+07	79,4
03/10 22:30	03/11 22:30	10,63	255000	69,7	36000	32400	104,5	0.0	2,03E+07	79,7
03/11 22:30	03/12 22:30	10,54	253000	69,7	36000	32400	104,5	0.0	2,03E+07	80,4
03/12 22:30	03/13 22:30	10,63	255000	69,7	36000	32400	104,5	0.0	2,03E+07	79,7
03/13 22:30	03/14 22:30	10,63	255000	69,7	36000	32400	103,9	0.0	2,03E+07	79,7
03/14 22:30	03/15 22:30	10,5	252000	69,1	36000	32400	103,9	0.0	2,03E+07	80,7
03/15 22:30	03/16 22:30	10,79	259000	69,1	36000	32400	103,9	0.0	2,03E+07	78,5
03/16 22:30	03/17 22:30	10,25	246000	68,6	36000	32400	103,9	0.0	2,03E+07	82,6

DAILY VALUATION OF THE ENERGY MULTIPLE - MARCH 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
03/17 22:30	03/18 22:30	10,46	251000	68,6	36000	32400	103,9	0.0	2,03E+07	81,0
03/18 22:30	03/19 22:30	10,29	247000	68,6	38000	34200	103,9	0.0	2,15E+07	86,9
03/19 22:30	03/20 22:30	10,63	255000	68,6	36000	32400	103,9	0.0	2,03E+07	79,7
03/20 22:30	03/21 22:30	10,54	253000	68,6	36000	32400	103,9	0.0	2,03E+07	80,4
03/21 22:30	03/22 22:30	10,58	255000	68,6	36000	32400	103,9	0.0	2,03E+07	79,7
03/22 22:30	03/23 22:30	10,63	255000	68,6	36000	32400	103,9	0.0	2,03E+07	79,7
03/23 22:30	03/24 22:30	10,5	252000	69,1	36000	32400	103,9	0.0	2,03E+07	80,7
03/24 22:30	03/25 22:30	10,79	259000	69,1	36000	32400	103,9	0.0	2,03E+07	78,5
03/25 22:30	03/26 22:30	10,59	254000	68,6	36000	32400	103,9	0.0	2,03E+07	80,0
03/26 22:30	03/27 22:30	10,46	251000	66,9	36000	32400	103,9	0.0	2,03E+07	81,0
03/27 22:30	03/28 22:30	10,5	252000	66,9	36000	32400	103,9	0.0	2,03E+07	80,7
03/28 22:30	03/29 22:30	10,54	253000	68,6	36000	32400	104,5	0.0	2,03E+07	80,4
03/29 22:30	03/30 22:30	10,55	258000	69,1	36000	32400	103,9	0.0	2,03E+07	78,8
03/30 22:30	03/31 22:30	10,34	248000	68,6	36000	32400	103,9	0.0	2,03E+07	82,0

DAILY VALUATION OF THE ENERGY MULTIPLE - FEBRUARY 2015										
		average power supply (Kw)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure	produced energy (wh)	COP
02/23 22:30	02/24 22:30	10,29	247000	69,1	36000	32400	103,6	0.0	2,03E+07	82,3
02/24 22:30	02/25 22:30	10,29	247000	68,6	36000	32400	104,5	0.0	2,03E+07	82,3
02/25 22:30	02/26 22:30	10,42	255000	68,6	36000	32400	103,6	0.0	2,03E+07	79,7
02/26 22:30	02/27 22:30	10,5	252000	68,6	36000	32400	104,5	0.0	2,03E+07	80,7
02/27 22:30	02/28 22:30	10,59	259000	69,1	36000	32400	104,5	0.0	2,03E+07	78,5

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA**

ANDREA ROSSI and LEONARDO
CORPORATION,

Plaintiffs,

v.

THOMAS DARDEN; JOHN T. VAUGHN,
INDUSTRIAL HEAT, LLC; IPH
INTERNATIONAL B.V.; and
CHEROKEE INVESTMENT PARTNERS,
LLC,

Defendants.

CASE NO. 1:16-cv-21199-CMA

INDUSTRIAL HEAT, LLC and IPH
INTERNATIONAL B.V.,

Counter-Plaintiffs,

v.

ANDREA ROSSI and LEONARDO
CORPORATION,

Counter-Defendants,

and

J.M. PRODUCTS, INC.; HENRY
JOHNSON; FABIO PENON; UNITED
STATES QUANTUM LEAP, LLC;
FULVIO FABIANI; and JAMES BASS,

Third-Party Defendants.

**DEFENDANT INDUSTRIAL HEAT, LLC'S AMENDED RESPONSES AND
OBJECTIONS TO PLAINTIFF ANDREA ROSSI'S FIRST SET OF
INTERROGATORIES**

Defendant Industrial Heat, LLC ("Industrial Heat"), pursuant to Federal Rules of Civil Procedure ("Federal Rules") 26 and 33, hereby responds to Plaintiff Andrea Rossi's ("Rossi") First Set of Interrogatories ("Interrogatories").

PRELIMINARY STATEMENT

Industrial Heat provides these responses and objections ("Amended Responses") without waiving any objections as to the admissibility in evidence of these Amended Responses, the information produced pursuant to, or referenced in, these Amended Responses, or the subject matter of the Interrogatories or of the information produced pursuant to, or referenced in, these Amended Responses. The Amended Responses are also subject to and without waiver of Industrial Heat's rights: (i) to object to other discovery directed to the subject matter of the Interrogatories or Amended Responses; (ii) to make additional objections or to seek protective orders; and (iii) to revise, correct, add to, or clarify the Amended Responses or information referred to below in accordance with all applicable rules. Industrial Heat reserves the right to supplement these Amended Responses after it has had a full and fair opportunity to participate in discovery.

Industrial Heat has not completed investigation of the facts related to this case. Therefore, Industrial Heat responds to these Interrogatories based upon information and documents acquired and reviewed to date, which may or may not be inclusive of all documents relevant to the matters in dispute in this case. Accordingly, the present Amended Responses are offered without prejudice to supplementation or modification at a later date.

GENERAL OBJECTIONS

Industrial Heat asserts the following General Objections to each of the Interrogatories. These objections are in addition to objections set forth separately in each and every Interrogatory.

1. Industrial Heat will respond to the Interrogatories according to its understanding of the ordinary meaning of any vague, ambiguous or undefined words or phrases contained therein.

2. Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement.

3. There are defined terms and phrases in the definitions section of the Interrogatories that are not used in any of the specific interrogatories. As a result, it is unnecessary for Industrial Heat to object to such unnecessary definitions but does not thereby waive any objections to those definitions as used in any subsequent discovery request. Furthermore, to the extent any defined term or phrase in the Request reflects a characterization by Rossi but the meaning of the defined term or phrase is clear (such as describing the property located at 7861 NW 46th Street¹ as the “Testing Facility”), Industrial Heat does not accept or endorse the characterization, but does not object to the defined term or phrase since its meaning is clear and any characterization is irrelevant.

4. Industrial Heat objects to the definitions of Industrial Heat, IPH and Cherokee (and the alternative terms used for these entities) to the extent they include persons or entities “purporting to act,” but not in fact acting, on behalf of Industrial Heat, IPH International or

¹ As explained below, Rossi’s First Set of Interrogatories states that the property located at 4861 NW 46th Street is the “Testing Facility.” Industrial Heat assumes that Rossi intended to reference the property located at 7861 NW 46th Street.

Cherokee Investment Partners because Rossi has provided no basis for the identification of such persons or entities and further because such persons or entities are not, by definition, acting on behalf of the above identified companies, but only purporting to do so. However, these Amended Responses include persons or entities Industrial Heat knows are acting or purporting to act on its behalf.

INTERROGATORY RESPONSES AND OBJECTIONS

INTERROGATORY NO. 1: Identify each and every person assisting in the preparation of or supplying information for your answers to these Interrogatories, each respective person's relationship to you and for each such person, identify by number each such Interrogatory for which such person supplied information for or assisted in the preparation of.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory to the extent it seeks information on which legal counsel for Industrial Heat assisted in preparing the responses below and as to which Interrogatory a particular counsel provided assistance.

Subject to, and without waiving, the foregoing General and Specific Objections, the following people – excluding legal counsel for Industrial Heat – assisted in the preparation of or supplying information for these Responses:

1. John T. Vaughn, Vice President of Industrial Heat, supplied information for the responses to Interrogatory Nos. 2, 5, 6, 12, 13, 14 and 15.
2. Thomas Darden, Manager, President and Director of Industrial Heat, supplied information for the responses to Interrogatory Nos. 5, 11, 12 and 15.
3. Brian McLaughlin, former director at APCO Worldwide, an outside consultant to Industrial Heat, supplied information for the response to Interrogatory No. 12.
4. Dewey Weaver, managing partner of Deep River Ventures, LLC, a consultant for Industrial Heat, supplied information for the responses to Interrogatory Nos. 12 and 13.

5. Jim Fogleman, Secretary and Treasurer of Industrial Heat, supplied information for the response to Interrogatory No. 7.
6. The responses to Interrogatory Nos. 3, 4, and 10 are legal objections drafted by counsel.
7. The responses to Interrogatory Nos. 8 and 9 direct Rossi to documents produced in discovery and do not contain additional factual information supplied by non-counsel.

INTERROGATORY NO. 2: Please identify each and every person who has, claims to have or whom you believe may have knowledge or information pertaining to any fact alleged in the pleadings (as defined in Federal Rule of Civil Procedure 7(a)) filed in this action or any fact underlying the subject matter of this action. For each person identified, please state the specific nature and substance of the knowledge that you believe the person(s) identified in your response may have.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory as overbroad, unduly burdensome and not proportionate to the needs of the case in that it seeks identification of persons with knowledge (or even just possibly with knowledge) as to every allegation in the pleadings, which would include such matters as the State of incorporation for named entity parties and the dates of documents cited in the pleadings, and concern allegations where there is no dispute between the parties. Industrial Heat objects to this Interrogatory as overbroad, unduly burdensome, and not proportionate to the needs of the case because it also seeks identification of persons with knowledge (or even just possibly with knowledge) of “any fact underlying the subject matter of this action” even if not tied or tethered to an allegation in any of the pleadings. Industrial Heat also objects to this Interrogatory as seeking information that can be obtained in a more convenient, less burdensome and less expensive manner through either or both of a review of documents and data produced in discovery and depositions (with the time limit for depositions requiring a party to focus on facts in dispute and significant to the

resolution of this litigation as opposed to every allegation included in any pleading). Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection.

Subject to, and without waiving the foregoing General and Specific Objections, the following may have knowledge or information pertaining to facts alleged in the pleadings or underlying the subject matter of this action:

1. All individuals listed in Plaintiffs' Initial Disclosures, Defendants' Initial Disclosures, or otherwise referenced herein. Industrial Heat states that, in addition to the individuals listed in this Response, there are additional individuals with knowledge of the facts alleged in the pleadings whose identities can be identified through the documents that it will produce. As stated above, it would be unduly burdensome to list each and every individual who may have knowledge or information pertaining to any fact alleged in the pleadings (*e.g.* each individual with knowledge of any payment made to Rossi or Leonardo Corporation in connection with the operation of the Plant (as defined below)).
2. Henry Johnson
c/o ARAN, CORREA & GUARCH, P.A.
255 University Drive
Coral Gables, FL 33134-6732
Tel.: 305-665-3400
3. James Bass
515 NE 8th Avenue
Deerfield Beach, FL 33441
Tel: 954-421-8078
4. Jim Fogelman
c/o JONES DAY
600 Brickell Avenue, Suite 3300
Miami, FL 33131
Tel: 305-714-9700
5. Dewey Weaver
c/o JONES DAY
600 Brickell Avenue, Suite 3300
Miami, FL 33131
Tel: 305-714-9700
6. Brian McLaughlin

Imperium Global Advisors
12034 Devilwood Drive
Potomac, MD 20854
Tel: 240-354-5987

7. Laura Kelly
Myers Bigel
P.O. Box 37428
Raleigh, NC 27627
8. Lynne Borchers
Myers Bigel
P.O. Box 37428
Raleigh, NC 27627
9. Justin Nifong
NK Patent Law
4917 Waters Edge Drive, Suite 275
Raleigh, NC 27606
10. Frank Ochiuti
O&R Patent Law
321 Summer Street
Boston, MA 02210
11. Steven Hartanto and Hady Hartanto
Suite 902 K Wah Center
191 Jaa Road, North Point
Hong Kong
12. Joe Pike
9663 Mashie Court
Naples, FL 34108
13. Daniel and Mia Pike
Address Unknown
14. Xu Hang
Address Unknown
15. Zhang Jjian
Address Unknown
16. Lu Rui Feng
Address Unknown

17. Chen Zhen Min
Address Unknown
18. Chen Zheyua
Address Unknown
19. Dong Jun Ling
Address Unknown
20. Giuseppe Levi
Bologna University
Bologna Italy
21. Evelyn Foschi
Bologna, Italy
22. Bo Hoistad
Uppsala University
Uppsala, Sweden
23. Roland Pettersson
Uppsala University
Uppsala, Sweden
24. Lars Tegner
Uppsala University
Uppsala, Sweden
25. Hanno Essen
Royal Institute of Technology
Stockholm, Sweden
26. Woodford Investment Management Ltd.
9400 Garsington Road
Oxford Business Park
Oxford, United Kingdom
OX4 2HN
27. Craig Cassarino
AmpEnergo, Inc.
4110 Sunset Boulevard
Steubenville, OH 43952
28. Ron Engleman
AmpEnergo, Inc.
4110 Sunset Boulevard

Steubenville, OH 43952

29. Richard Noceti
AmpEnergo, Inc.
4110 Sunset Boulevard
Steubenville, OH 43952

30. Robert Gentile
AmpEnergo, Inc.
4110 Sunset Boulevard
Steubenville, OH 43952

31. Karl Norwood
AmpEnergo, Inc.
4110 Sunset Boulevard
Steubenville, OH 43952

INTERROGATORY NO. 3: If you denied any of the allegations contained in Plaintiffs' Complaint filed in the above styled matter, please state with specificity, each and every reason and/or factual basis for such denial and for each allegation denied, identify those persons/entities with knowledge of the facts and/or circumstances which form the basis for your denial and identify any document(s) you believe support such denial.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory on the grounds that it is overbroad and unduly burdensome. Interrogatories are unduly broad if they ask in an undifferentiated way for all facts or witnesses that support an opposing party's case. This Interrogatory indiscriminately sweeps an entire pleading and impermissibly requires Industrial Heat to provide in essence a running narrative or description of its entire case. Industrial Heat further objects to this Interrogatory as it is duplicative of Interrogatory No. 2. The identity of persons with knowledge of the facts which form the basis for Industrial Heat's denials are listed in response to Interrogatory No. 2. Industrial Heat also objects to this Interrogatory to the extent it seeks information protected by an Applicable Privilege or Protection.

INTERROGATORY NO. 4: Please identify each and every corporation, partnership, limited liability company or other business entity in which IH has an ownership interest, control interest, beneficial interest and/or is a member, director or officer. For each such entity, please state the

State/Province and Country in which the entity was formed, the nature of the business each such entity is engaged in and describe the nature of IH's interest in such entity including, but not limited to: (a) the percent of each such entity owned by IH; (b) the names of each and every share holder owning in excess of ten percent (10%) of such entity(ies); (c) the names of any common employees and/or officers (employees and/or officers engaged in both IH and any of the identified entities) and (d) indentify any agreements and/or contracts between IH and any such entity.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, harassing, not reasonably calculated to lead to the discovery of admissible evidence and not proportionate to the needs of this case. This Interrogatory is a fishing expedition for information regarding Industrial Heat's ownership interests, control interests, beneficial interests, and other corporate positions. The Court has already determined that Plaintiffs' allegations that Defendants created foreign and domestic companies are not sufficient to support Plaintiffs' claims. Moreover, there is no allegation in the Complaint (as narrowed by the Court's Order on Defendants' motion to dismiss (the "Dismissal Order")) that makes material, or even relevant, to this case Industrial Heat's ownership interests, control interests, etc., particularly absent a limitation or requirement connecting such an interest to an issue in dispute in this litigation. Further, given the breadth of Rossi's definition of "IH," this Interrogatory seeks such irrelevant and immaterial information as the ownership interests of Industrial Heat representatives and consultants. Industrial Heat also objects to this Interrogatory because the phrases "control interest" and "beneficial interest" are undefined and, without a definition, vague and ambiguous. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection.

INTERROGATORY NO. 5: Please state with specificity, each and every date and time that IH, IPH, Cherokee or any of their respective employees, officers, agents, assigns and/or representatives visited the Testing Facility, located at 4861 [sic] NW 46th Street, Doral, FL 33166, from September 1, 2014 through the present. For each such visit, please state the date of the visit, the duration of the visit, the names of all of the persons present during such visit, the purpose of the visits and identify any documents including, but not limited to, photographs,

memoranda, notes, journals and/or other recordings reflecting observations, measurements or notations made by IH, IPH, Cherokee or any of their respective employees, agents, representatives, guests, investors and/or assigns during the visit.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory because the terms “representatives” and “assigns,” as used in the context of this Interrogatory, are vague and ambiguous. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. Industrial Heat also understands that this Interrogatory and any other references herein to the “Testing Facility” are meant to refer to 7861 NW 46th Street, Doral, Florida 33166 and not 4861 NW 46th Street, Doral, Florida 33166.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents addressing any visits to the “Testing Facility” by Industrial Heat, IPH International, Cherokee Investment Partners or an employee, officer or agent of same during the specified time period from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery. In addition, and without limiting the information in such documents, Industrial Heat states the following about visits to the “Testing Facility” (not limited to visits by Industrial Heat, IPH International, Cherokee Investment Partners or any employee, officer, or agent of same):

1. On or about January 1, 2015, John T. Vaughn visited the Testing Facility for the purpose of checking on the facility. The visit lasted approximately one hour.
2. During the week of February 9, 2015, Thomas Darden, John T. Vaughn visited the Testing Facility with Paul Lamacraft (and possibly Harry Raikes) from the Woodford Fund (“Woodford”). The visit lasted approximately two hours and the

purpose of the visit was to meet with Andrea Rossi, Fulvio Fabiani, James Bass, and Barry West.

3. On or about February 24, 2015, Thomas Barker Dameron and John T. Vaughn visited the Testing Facility to observe the operation of the 1 MW plant (the “Plant”) and meet with Andrea Rossi. The visit lasted approximately two hours.
4. On or about March 27, 2015, Daniel Pike, Mia Pike, Xu Hang, and Zhang Jjian visited the Testing Facility to observe the operation of the Plant and meet with Andrea Rossi.
5. On or about July 7, 2015, Steven Hartanto, Hady Hartanto, Lu Rui Feng, Chen Zhen Min, Chen Zheyuan, and Dong Jun Ling visited the Testing Facility to observe the operation of the Plant and meet with Andrea Rossi.
6. On or about August 21, 2015, Thomas Darden, John T. Vaughn, Paul Lamacraft and Harry Raikes visited the Testing Facility to observe the operation of the Plant and meet with Andrea Rossi. This visit lasted less than two hours.
7. On February 16-17, 2016, John T. Vaughn, Joseph Murray and Christopher Pace visited the Testing Facility to observe the shutdown of the Plant and to inspect the methods being used to measure the Plant’s performance. The February 15 visit lasted approximately seven hours and the February 16 visit lasted approximately four and a half hours.
8. On or about June 2, 2016, John T. Vaughn, Joseph Murray and Christopher Pace visited the Testing Facility to further observe the Plant following shutdown and to take additional photographs of the Plant. The visit lasted less than 2 hours.

9. On an unknown date or dates in 2015, Joe Pike visited the Testing Facility to observe the operation of the Plant and meet with Andrea Rossi.

INTERROGATORY NO. 6: If you believe that Mr. Fabio Penon (“Mr. Penon”) failed to follow the test protocol prepared by Mr. Penon for the 1MW E-Cat which was sent to you by Mr. Penon on February 10, 2015 and attached hereto as Exhibit “A”, please state the basis for your belief including, but not limited to:

- (a) Each and every reason why you believe the protocol was not followed;
- (b) The date(s) which you believe the protocol was not followed;
- (c) The manner in which you believe the protocol was not followed;
- (d) the date your first discovered that the protocol was not followed;
- (e) the person(s) who discovered or determined that the protocol was not followed;
- (f) how you discovered that the protocol had not been followed; and
- (g) identify each and every document supporting your claim that the test protocol was not followed.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory because the Exhibit A attached to the Interrogatories is not in fact a test protocol, but a proposal for a test protocol dated nearly one month before Plaintiffs began operating the 1MW plant at what Rossi calls the “Testing Facility.” This protocol differs substantially from the test plan that Penon subsequently produced and represented to be the “Tests Plan.” Whether Penon followed a proposal that was not in fact the test plan Penon later represented to be the “Tests Plan” is therefore irrelevant or, even if marginally relevant, responding to such a question would be unduly burdensome and not proportionate to the needs of this case. Industrial Heat also objects to this Interrogatory to the extent it seeks information protected by an Applicable Privilege or Protection.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat attaches hereto as Exhibit 1 a copy of what Penon represented to be the “Tests Plan.”

INTERROGATORY NO. 7: Please identify each and every individual, corporation, partnership, limited liability company or other business entity which has a direct financial and/or ownership interest in IH, IPH, and Cherokee including any member, director or officer of each. For each such person or entity, please state the date such individual or entity acquired a financial

and/or ownership interest in IH, IPH, and/or Cherokee and their respective percentage ownership interest in each.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory on the grounds that it is overbroad, unduly burdensome, harassing, not reasonably calculated to lead to the discovery of admissible evidence and not proportionate to the needs of this case. This Interrogatory is a fishing expedition for information regarding the ownership of Cherokee Investment Partners. There is no allegation in the Complaint (as narrowed by the Dismissal Order) that makes material, or even relevant, to this case those who have a financial or ownership interest in Cherokee Investment Partners, particularly absent a limitation or requirement connecting such an interest to an issue in dispute in this litigation. Further, given the breadth of Rossi's definitions of "IH," "IPH" and "Cherokee," this Interrogatory seeks such irrelevant and immaterial information as, *e.g.*, those with financial or ownership interests in subsidiaries, consultants, and contractors of Industrial Heat, IPH International, or Cherokee Investment Partners. Industrial Heat also objects to this Interrogatory because the phrase "financial and/or ownership interest" is undefined and, without a definition, it is vague and ambiguous as to how a financial interest is distinguishable from an ownership interest. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat states that (a) it is wholly owned by IH Holdings International, Ltd., (b) it formerly was the sole owner of IPH International B.V., and (c) IPH International B.V. is now a wholly owned subsidiary of IPHBV Holdings Ltd.

INTERROGATORY NO. 8: Please describe with specificity, each and every attempt (whether successful or not) made by you or by any other person or entity on your behalf to replicate, duplicate, construct, test, evaluate, manufacture, experiment, or operate an E-Cat device or any

portion thereof or any device derived from any/or all of the E-Cat IP. For each such attempt, please identify the persons present, the specific protocol followed, the date of each attempt, the results of each such attempt and whether you informed the Plaintiffs of such attempt.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. Industrial Heat further objects to the phrase “E-Cat device” which is vague and ambiguous without a definition, but Industrial Heat assumes that phrase is intended to equate to an “E-Cat Product” as defined in the License Agreement, and as noted above, Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents addressing attempts by Industrial Heat or others on its behalf to replicate or test an E-Cat Product or a device derived from the E-Cat IP (as both are defined by the License Agreement), from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery.

INTERROGATORY NO. 9: Please describe with specificity, any and all due diligence performed by IH, IPH, and/or Cherokee and their agents, employees, principals, predecessors, assigns and/or representatives before (a) entering into the License Agreement at issue in the above-styled case and (b) entering into the “Term Sheet” referenced in Paragraph 75 of your Counterclaim.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory because the terms “representatives” and “assigns,” as used in the context of this Interrogatory, are vague and ambiguous. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. To the extent there is any ambiguity, Industrial Heat further clarifies its understanding that “Term Sheet” as used in this

Interrogatory is the Term Sheet attached as Exhibit 17 to the Second Amended Answer, Additional Defenses, Counterclaims and Third Party Claims. Industrial Heat objects to the phrase “due diligence” as vague and ambiguous because it is not tethered to a particular agreement or transaction, but understands the phrase to mean in the context of the Interrogatory due diligence as to the License Agreement or a subject thereof before entering the License Agreement and due diligence as to the Term Sheet or a subject thereof before entering the Term Sheet.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents addressing the “due diligence” performed by Industrial Heat, IPH International, Cherokee Investment Partners, or an employee, officer, principal or agent of same, as to the License Agreement or a subject thereof before entering the License Agreement and as to the Term Sheet or a subject thereof before entering the Term Sheet, from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery.

INTERROGATORY NO. 10: Please state each item of damage that you claim whether as an affirmative claim or as a setoff and include in your answer: (a) the count or defense to which the item of damages relates; (b) the category into which each item of damages falls, *i.e.*, general damages, special or consequential damages (such as lost profits), interest, and any other relevant categories and (c) the factual basis for each item of damages and identify any documents which support such damages, and an explanation of how you computed each item of damages, including any mathematical formula used.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory on the grounds that it is overbroad and unduly burdensome. Interrogatories are unduly broad if they ask in an undifferentiated way for all facts that support an opposing party’s case. This Interrogatory, which seeks the factual basis for each item of damages, indiscriminately sweeps

an entire pleading and impermissibly requires the Industrial Heat to provide in essence a running narrative or description of its entire case. Industrial Heat further objects to this Interrogatory to the extent it seeks information protected by an Applicable Privilege or Protection. Industrial Heat also objects to this Interrogatory to the extent that it seeks information relating to counts in the Second Amended Answer, Additional Defenses, Counterclaims and Third Party Claims to which Rossi is not a party.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents supporting its claims for damages against Rossi, from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery.

INTERROGATORY NO. 11: Please identify each and every individual and/or entity to whom IH, IPH, Cherokee and/or their respective employees, agents, representatives, and/or assigns disclosed any part of the E-Cat IP including, but not limited to, sub-licensees, researchers, scientists, subsidiaries, parent companies and affiliates.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory because the terms “representatives” and “assigns,” as used in the context of this Interrogatory, are vague and ambiguous. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. As noted above, Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement. Industrial Heat further objects to this Interrogatory as vague and ambiguous as to whether the covered “individual[s] and/or entit[ies]” (a) are intended to mean individuals or entities other than “IH, IPH, Cherokee and/or their respective employees, agents, representatives, and/or assigns” (“Other Parties”) or (b) are intended to cover, *e.g.*, the “disclos[ure]” of the E-Cat IP

from one Industrial Heat employee to another Industrial Heat employee. Industrial Heat understands and responds to this Interrogatory on the basis that the first interpretation (*i.e.*, “(a)”) is the correct interpretation, otherwise, any responses to this Interrogatory would be overbroad and unduly burdensome. Industrial Heat objects to this Interrogatory to the extent the covered “individual[s] and/or entit[ies]” are intended to cover Rossi or entities owned by Rossi as unduly burdensome and disproportionate to the needs of the case because disclosure, *e.g.*, by an Industrial Heat employee to Rossi is not an issue in dispute in this litigation. Industrial Heat also objects to this Interrogatory to the extent that it seeks information about disclosures of the E-Cat IP to patent offices or other agencies involved in the issuance of patents, in connection with the patent application process.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents from which Rossi can ascertain Industrial Heat’s disclosures of the E-Cat IP to patent offices or other agencies involved in the patent application process. Industrial Heat states that Industrial Heat and IPH entered into a Technology Internal Use and Evaluation Agreement with a third party entity to allow that third party entity to test and evaluate certain technology related to the E-Cat IP (“Evaluation Agreement”).² Industrial Heat provided portions of the E-Cat IP to that third party entity pursuant to the Evaluation Agreement. Furthermore, certain family members of Thomas Darden were present when Rossi orally conveyed the energy catalyst formula to Thomas Darden. Other than the third party entity referenced above, while Industrial Heat was fully entitled under the License Agreement to disclose the E-Cat IP (as defined in the License Agreement) to other individuals or entities, “IH, IPH, Cherokee and/or their respective employees [and/or] agents”

² Because no confidentiality order has been entered in this case, the identity of this third party entity will not be revealed in this response. After the Court enters a confidentiality order, Industrial Heat will produce a copy of the Technology Internal Use and Evaluation Agreement that will reveal the identity of the third party entity.

have not disclosed the E-Cat IP to any Other Parties (excluding Rossi and entities owned by Rossi).

INTERROGATORY NO. 12: Please identify each and every public statement including, but not limited to, any presentation, lecture, panel discussion, press release, speech, seminar, information session, investor presentation and/or interview given by IH, IPH, Cherokee and/or their respective employees, representatives and/or agents in which such person or entity mentions, references, explains or discusses the E-Cat, the E-Cat IP or any part thereof. For each such public statement identified, please state the date such statement was made, the names of any parties present (if known), the location of such public statement and whether such statement was recorded or otherwise transcribed or published.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory because the term “representatives,” as used in the context of this Interrogatory, is vague and ambiguous. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. As noted above, Industrial Heat objects to the definition of “E-Cat IP” to the extent that it is intended to encompass information beyond that encompassed by the definition of “E-Cat IP” contained in the License Agreement. Industrial Heat also objects to this Interrogatory to the extent it seeks information regarding statements as to “any part” of the E-Cat or E-Cat IP. The E-Cat and the E-Cat IP contain many parts such as wires, tubes, pipes, and bolts and basic elements such as nickel. Requiring Industrial Heat to provide information regarding statements as to any of these parts is overbroad, unduly burdensome, and disproportionate to the needs of this case. Industrial Heat further objects to the extent that “every public statement” is intended to encompass any passing reference to the E-Cat or the E-Cat IP made by any IH, IPH or Cherokee employee, representative or agent in a public setting. Responding to a request for such information is overbroad, unduly burdensome, and disproportionate to the needs of this case.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents addressing any public statement by Industrial Heat,

IPH International, Cherokee Investment Partners, or an employee or agent of same, that mentions, references, explains, or discusses the E-Cat or the E-Cat IP, from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery.

Additionally, the following oral public statement that explains or discusses the E-Cat or the E-Cat IP has been made:

1. In August 2013, Thomas Darden made general references to the E-Cat IP at an annual business and environmental sustainability retreat in Iceland. Thomas Darden only discussed Industrial Heat having licensed the E-Cat IP, he did not discuss any confidential or technical facts associated with the E-Cat IP.

INTERROGATORY NO. 13: Please identify with specificity each and every instance or occurrence that you allege Rossi and Leonardo violated the confidentiality provisions contained in the License Agreement. For each instance or occurrence, please state with specificity (a) the date of the alleged violating disclosure; (b) to whom the alleged violating disclosure was made; (c) the specific language of such disclosure; (d) whether you had knowledge about the disclosure before it was made and (e) identify each and every document supporting your allegation of such disclosure.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory to the extent it seeks information on whether Industrial Heat knew about disclosures by Rossi before they were made on the grounds that such is overbroad, unduly burdensome, harassing, not reasonably calculated to lead to the discovery of admissible evidence and not proportionate to the needs of this case. As to the terms of the License Agreement, Rossi or the New Hampshire corporation of Leonardo Corporation would only be permitted to make a disclosure with a written approval, and as to the E-Cat IP, Rossi or the New Hampshire corporation of Leonardo Corporation would only be permitted to make a disclosure pursuant to License Agreement Section 13.2 or pursuant to a signed, written instrument amending or waiving a provision of the

License Agreement. Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection.

Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents addressing each instance or occurrence that Industrial Heat contends Rossi or Leonardo violated the confidentiality provisions contained in the License Agreement, from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery.

INTERROGATORY NO. 14: Identify each and every instance in which you allege that Plaintiffs have violated Section 13.3 of the License Agreement. For each instance or occurrence, please state with specificity (a) the name of the person or entity for whom or which Plaintiffs provided services or own an interest; (b) the date(s) on which all such violating actions took place; (c) the geographic location in which such violating action took place and (d) the damages that you believe are attributable to each such violation.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat will produce non-privileged documents addressing each instance that Industrial Heat contends Plaintiffs violated License Agreement Section 13.3, from which Rossi can ascertain the answers to this Interrogatory. Industrial Heat will provide further identifying information about such documents after the production of documents in discovery.

INTERROGATORY NO. 15: In paragraph 132 of your Counterclaim, you state “on information and belief, Leonardo and Rossi have not paid their federal taxes on payments made to them from Counter-Plaintiffs.” Please state, with specificity, what “information” you have to support the your (sic) allegation in Paragraph 132 of your Counterclaim. If such “information” includes any documents, please (a) identify the document, (b) identify the source of such documents, and (c) the specific language contained in the document which you relied upon as “information”.

ANSWER: In addition to its General Objections, Industrial Heat objects to this Interrogatory to the extent that it seeks information protected by an Applicable Privilege or Protection. Subject to, and without waiving the foregoing General and Specific Objections, Industrial Heat states the following: During at least one discussion in 2013 in which Thomas Darden was a participant, Andrea Rossi stated that he did not have to pay taxes on the payments made by Industrial Heat, and further made a reference to having offshore corporations or bank accounts. During this conversation Mr. Darden informed Rossi that he did not believe it could be correct that no taxes were owed, in part because the payments were to Leonardo Corporation and Leonardo Corporation was a United States corporation. Also, a member of AEG informed Industrial Heat that he used the same accountant as Rossi and that accountant told him that Rossi had not paid taxes on his income during either the time he used the accountant or during the last two years he used the accountant, who is no longer Rossi's accountant.

HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY

INTERROGATORY NO. 16: (Propounded by the Court) Did you or did you not have access to \$89 million as of February 15, 2016? If you had less than \$89 million, then identify the amount of money you did have.

ANSWER: Yes, Industrial Heat did have access to \$89 million as of February 15, 2016 through fundraising from investors. Industrial Heat had an available cash balance of \$16,761,138.52 in its accounts on February 15, 2016. Industrial Heat had not called upon investors to fund any added capital as of that date because it already knew well before February 15, 2016 that Rossi and Leonardo could not achieve Guaranteed Performance under the License Agreement. If Rossi and Leonardo had successfully conducted the Guaranteed Performance Test as specified in the License Agreement and had transferred all of the E-Cat IP to Industrial Heat (which did not occur), Industrial Heat could have raised the additional funds from investors to pay amounts due under the License Agreement. For example, an arrangement existed with the Woodford Funds for an additional \$150 million in capital if the circumstances warranted, and other investors had sufficient capital to provide the additional funds as well.

VERIFICATION

I, John T. Vaughn, am currently Vice President of Industrial Heat, LLC ("Industrial Heat"). I am authorized by Industrial Heat to verify on its behalf the Amended Responses and Objections to Rossi's First Set of Interrogatories ("Amended Responses"). I have read the Amended Responses and know the contents thereof, and I state that the facts contained in the Amended Responses are true and correct to the best of my knowledge, information and belief, subject to the objections set forth in the Amended Responses. I declare under penalty of perjury that the foregoing is true and correct.

EXECUTED ON 11/22, 2016

BY: 
John T. Vaughn

Dated: November 22, 2016.

Respectfully submitted,

/s/ Christopher R.J. Pace

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Attorneys for Defendants

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by e-mail on counsel of record on the service list below this 22nd day of November, 2016.

/s/ Erika S. Handelson

Erika S. Handelson

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EXHIBIT

1

Ing. Fabio Penon

Tests plan

E-CAT MW1 ENERGY PLANT IN MIAMI TESTS PLAN

1. Plant description

The MW1-USA plant under test consists of 115 power generation units, grouped in modules. Only 111 units will be operational during the tests: Four units will be used as spare parts.

Every unit absorbs a power of about 1.1 kW – 2.5 kW

Each unit consists of a reaction chamber, where the nickel powder reacts with the hydrogen in the presence of a catalyst.

Electric heaters heat the reaction chamber and by this way trigger the reaction between nickel and hydrogen.

The power panel regulates the power supply of the electric heaters

The cooling water is contained in a tank, placed inside the plant, that receives the water from an external plant.

It is conveyed by pumps in the units E-Cat, where it is heated to vaporize. The steam is collected in one tube of the steam line, which conveys it to the outside of the shelter.

The steam is then passed through the customer's facility, where it cools up to its condensation.

The water is so recycled to the internal tank in a closed loop. The water is distilled water. The external tank is connected with the internal tank, by a water line and a floating valve, so that the level of water inside the internal tank is maintained constant. The water flows from the external tank into the internal tank by gravity.

The heating elements of the E-Cat units, the pumps for the water, the internal services to the shelter and the control panel are powered by the public grid

In the plant some measuring instruments are installed:

- flowmeter for measuring the flow rate of cooling water inlet into the shelter.

It is located along the line of return of the water, between the plant of the Customer and the 1 MW E-Cat

- temperature probe for measuring the cooling water temperature at the inlet of the shelter.

It is located in the internal water tank, containing cooling distilled water

- temperature probe for measuring steam temperature at the outlet of the shelter.

It is located along the steam pipe at the outside of the shelter

- pressure probe for measuring steam pressure at the outlet of the shelter.

It is located along the steam pipe at the outside of the shelter

- power analyzer for measuring the power supply.

It is located along the electric power line before the E-Cat

Ing. Fabio Penon

Tests plan

2. Test set up

2.1 List of components

- n. 60 Water pump (Prominent)
- n. 115 E-Cat units
- n. 1 Water pump
- n. 1 Internal Water tank (0.2 C.M.)
- n. 1 Auxiliary external water tank

2.2 Measurement instrumentation

- Flowmeter Test report n. 01/2015, dated 2015/01/15
- Power analyzer PCE 830 Calibration certificate n. 0518/15, dated 2015/01/28
- Probe for water temperature measurement HSTC - TT - TI – 24S.
- Probe for steam temperature measurement TU - T - NPT - U 72
- Probe for steam pressure measurement PX 309-100A5V
- Multifunction calibrator

The measurement chain of temperature a will be calibrated by the thermometer HSTC-TT-TI-24S-1M-SMPW-M

3. Calculation of the energy mutiple

6.1 Calculation of the energy produced (E_P)

The energy produced by 111 power generator units is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_P = E_R + E_V + E_S$$

$$E_R \text{ (energy of heating of water up to } 100^\circ\text{C)} = M_W \times C_{sw} \times (T_{vw} - T_{iw})$$

where

M_W = mass of water vaporized during the whole test, coming from tank

T_{iw} = inlet temperature of the water, coming from tank

C_{sw} = specific heat of water = 1,14 Wh/(kg°K)

T_{vw} = vaporization temperature of the water = 100 °C

$$E_V = \text{(energy of vaporization of water)} = \lambda \times M_W$$

$$\lambda = \text{(latent energy of vaporization)} = 627,5 \text{ Wh/kg}$$

Ing. Fabio Penon

Tests plan

$$E_s (\text{ heating energy of steam }) = M_s \times C_{ps} \times (T_{os} - T_{vw})$$

M_s = mass of steam produced during the whole test
 C_{ps} = specific heat of steam at constant pressure = 0,542 Wh/kg

T_{os} = outlet temperature of the steam
 T_{vw} = vaporization temperature of the water

The values refer to the atmospheric pressure

In order to be conservative:

- it will be not taken into account the heating energy of steam
- the temperature of the incoming water will be always considered to be equal to the maximum value of the same measured during the entire test day

It will be possible small leaks of water to the inside of the shelter and are present measurement uncertainties

To take this into account the total mass of water transited during the test period will be reduced by 10%..

3.2 Calculation of the energy absorbed (E_a)

The energy is supplied from the public grid

In order to be conservative:

- all the supplied energy is supposed be absorbed by the 111 reactors

In reality a part of this energy feeds the pump, which conveys the water from the tank external to the reactors This energy doesn't feed the reactors

3.3 Calculation of the 'energy multiple'

$$\text{Energy multiple} = \frac{\text{energy produced (} E_P \text{)}}{\text{energy absorbed (} E_A \text{)}}$$

4. Test protocol

Before testing Leonardo Corporation will implement the system in accordance with reference documentation

The ERV will provide the measuring devices: probe for measuring water inlet temperature, probe to measure outlet steam temperature, probe to measure the outlet steam pressure, inlet water flowmeter, electrical power analyser

Leonardo Corporation will install measuring devices with reference documentation

Ing. Fabio Penon

Tests plan

Before the plant start up the ERV will verify the compliance of the plant configuration and of the measuring chains with reference documentation.

He will carry out a trial run

Leonardo Corporation will start the system

The ERV will then follow the system start-up to reach the operating conditions and at least the next 24 hours of operation

According to data collected after the first 24 hours of operation, he will make an initial assessment of the 'Energy Multiple' and he will prepare the report

During the test will be detected the electrical power supplied, the temperature of the inlet water, the temperature and the pressure of the outlet steam, the flow rate of inlet water.

At 00.00 of every day of the test, the measurement system will calculate the mass of water that has passed through the E-Cat and the total energy supplied to the E-Cat.

Every event that occurs from the start until the close of the tests, after 350 days of operation, will be recorded in the logbook by Leonardo Corporation.

During the 350 days of operation, the ERV will visits to the plant with a frequency approximately four months in order to verify the configuration of the system and the measuring chains and make evaluations of Multiple Energy

At the end of the 350 days of operation the ERV will follow the shutdown of the plant

At the conclusion of the test the ERV will produce a final report, showing the results

Abano Terme, 2015/02/09

POIESIS srl
Fabio Penon M.E.

Industrial Heat

CONFIDENTIAL MEMORANDUM

21 April 2015

To: Paul Lamacraft, Woodford Investment Management

From: Tom Darden, Industrial Heat

Subject: Industrial Heat Update, March 16th - April 17th, 2015

The primary areas of activity the past four weeks at Industrial Heat have included:

1. Identifying and interviewing potential candidates for key positions on the IP and R&D/Engineering teams; identifying co-located lab/office space for the company.
2. Further developing acquisition and investment opportunities in the sector--we hope to close on at least two acquisitions (Redacted - Other Investments is described below) and at least one investment (Redacted - Other Investments) in the 4-8 weeks post-closing.
3. R&D: Rossi continues to operate his 1MW unit; (Redacted - Other Investments) appear to separately be making progress; progress is less clear with (Redacted - Other Investments) at the moment; (Redacted - Other Investments) did not conduct significant R&D work during the past month.
4. On April 13, gave the opening address for ICCF-19 in Padua, Italy (International Conference on Condensed Matter Nuclear Science), the industry's premier conference, held every 18 months. It seems to have been very well received; a copy is attached. In addition, Rossi partnered with Norman Cook to present a technical paper at the conference, which appears to have been generally well received; a copy is attached.
5. Finalizing international corporate restructuring, including the formation of a UK holding company. Appear to be on schedule to finalize the transaction with WIM by the end of the month, assuming Wells Fargo does not delay activating a bank account for the UK holding company.
6. External relations:
 - a. hosted a Chinese delegation that visited Rossi's plant in Miami, Florida
 - b. further engaged Google concerning its interest in the sector, which appears to be serious, though not entirely cooperative at present
 - c. established a relationship with Phononic, a leading thermoelectric company
 - d. visited Dr. James Truchard, the founder and CEO of National Instruments, and discussed NI's interest in the sector (which is to ensure its LabView software becomes the industry standard in monitoring and controlling experiments)
 - e. initiated relations with India through Dr. Mahadeva Srinivasan, who has indicated that India's new Prime Minister, Mr. Narendra Modi, is serious about climate change and aware of LENR.

Below, we have provided a more granular update concerning our activity over the preceding four weeks and our plans going forward. Consistent with previous updates, this update is organized into four sections:

- I. Strategy and G&A
- II. Intellectual Property
- III. R&D and LENR Sector Activity
- IV. Three-Month and Six-Month Goals

I. Strategy and G&A

Strategy Consulting:

IH has initiated discussions with Bain, McKinsey and BCG to assist in developing IH's overall strategy. IH intends to retain one of these firms within one month of closing, and expects the initial analysis to take 3-4 months to complete.

In parallel, IH will be working to identify and retain an investment bank to engage Global 500 companies interested in partnering with IH to license and further develop its technology. One such firm IH is considering engaging is Ocean Tomo, a pre-eminent intellectual property merchant bank based in Chicago, IL. We would be interested in WIF recommendations.

G&A Updates:

Real estate: IH is narrowing the list of potential lab/office locations. Once selected, the new combined lab and office space will need to be updated and equipped. IH anticipates this process taking approximately 6-8 months, and intends to continue to use its existing lab space in the interim, as well as offices at Cherokee. IH anticipates signing a 3 year lease, costing 100,000 to 200,000 per year. IH is presently working to better equip its existing lab (with such equipment to be transported to the new lab once it has been identified) to allow for an expanded R&D effort.

Human Resources: Executive, administrative and business team -- the strategy consulting work will help inform the types of personnel we need to assist with administrative, business and commercialization efforts. In the interim, we continue to use Cherokee Investment Services to provide back office support (e.g., accounting, payroll, insurance, etc.) at cost. Tom Darden continues in his capacity as CEO, as does JT Vaughn in his capacity as Vice President, focused on operations and executing on the sector strategy. Dewey Weaver continues to be the point person for maintaining inventor relationships and identifying new opportunities and relationships in the field. IH has also recently begun working to identify candidates for the CFO position.

R&D and Engineering team: T. Barker Dameron continues to provide technical oversight and analysis on the state of current and prospective technologies. As we have mentioned previously, we have been working to identify an experienced director for the R&D and Engineering team. We are in the process of interviewing Joseph Murray for this position.

Mr. Murray was previously a co-founder and principal of 3 Phoenix, a design and engineering business that provides innovative technology solutions (such as active and passive anti-submarine warfare sonar processing) to the US Department of Defense as well as industry partners. 3 Phoenix was acquired last year by Ultra Electronics and, after assisting through the transition period; Mr. Murray is now looking for new opportunities. IH management has known Mr. Murray for about two years, and when we learned he was leaving Ultra Electronics, we invited him to learn more about IH. Mr. Murray's bio is attached.

We are also in the process of interviewing Alexandra Alvarez for the position of project manager for the R&D and Engineering team. She is currently a project controls engineer for Shell Global Solutions, where she manages projects in the United Arab Emirates, Iraq and the Netherlands. Ms. Alvarez was introduced to IH management by a mutual friend in startup technology sector, world who knew that she was relocating to the Research Triangle due to her husband's new job. Ms. Alvarez's resume is attached.

We anticipate that the director of the R&D and Engineering team, whether it is Mr. Murray or another candidate, will fill out his or her team, with a focus on relevant scientific and engineering skills.

IP Team: IH advertised three positions on LinkedIn for the IP team, including in-house patent counsel, IP project manager and technical staff (science or engineering backgrounds). In a matter of weeks we received 40 applications for in-house patent counsel, 22 for project manager and 39 for the technical staff. We are working towards developing a short list for each position. One of the candidates for in-house patent counsel is Letao Qin, a lawyer we have been using at Coats & Bennett PLLC. The IH team has been impressed with Mrs. Qin's work to-date with several of its inventors and considers her a strong candidate for in-house patent counsel. Mrs. Qin's resume is attached.

II. Intellectual Property

Below we have listed a number of disclosures that we are currently working to develop and file as provisional patent applications. Preparing a draft provisional patent application for filing could take as much as 3-4 months, and the titles below will likely change before being filed. The number of provisional applications filed deriving from the disclosures listed below could also be more or less, depending on how the applications develop.

Redacted - Other Investments

Redacted - Other Investments

III. R&D and LENR Sector Activity

Below is a brief update on the R&D underway with our portfolio of inventors. Many of the inventors were distracted these past four weeks in preparing to attend ICCF-19, a week long event in Padua, Italy.

1. Rossi: Rossi continues to operate his 1MW unit in Miami; no independently verified results yet.

Redacted - Other Investments

Redacted - Other Investments

Redacted - Other Investments

IV. Three-Month and Six-Month Goals

3-month goals (May - July, 2015):

1. Close on at least two acquisitions and one strategic investment
2. Staff R&D/Engineering and IP teams
3. Expand the IP identification and capture processes
4. Create IH administrative and payroll systems
5. Engage strategy consulting firm to further develop overall strategy and business plan; hire an investment banking firm to engage potential strategic partners
6. Build and operate new reactors, monitoring and capturing all key data points
7. Continue and expand conversations with corporate partners; attend GE new venture conference in May

6-month goals (May - October, 2015):

1. Begin implementing strategy as guided by outside consulting firm; begin engaging potential strategic partners identified by investment banking firm
2. Up-fit and equip new lab/office space
3. Create demonstration site inside our lab to show working technology to outside partners
4. Independently build and operate at least one additional model of reactor (e.g., Redacted - Other Investments reactors)
5. File 15 high quality provisional patent applications

From: Tom Darden <tdarden@industrialheat.co>
Sent: Friday, May 15, 2015 9:15 AM
To: Jon Spear; Steven Hartanto
Subject: Fw: Industrial Heat

Guys: here is a schedule item for you to be aware of. Steven, when are the CA mtgs with your dad? Are they confirmed? Thanks.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Tom Darden <tdarden@industrialheat.co>
Sent: Friday, May 15, 2015 9:12 AM
To: Zoe King
Cc: JT Vaughn; Andrea P. Meli
Subject: Re: Industrial Heat

Let's tentatively hold the 21st at 10 AM. I have cc'd JT Vaughn and also Andrea Meli for their input also. Thanks.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Zoe King
Sent: Friday, May 15, 2015 5:34 AM
To: Tom Darden
Cc: Joe Pike
Subject: Industrial Heat

Tom,

Thursday morning (21st May) in Oxford is best for Paul, I can offer a 10am or 11am start. Likely just Paul from our side on this occasion.

Thank you,

Zoe

From: Paul Lamacraft
Sent: 14 May 2015 07:08
To: 'Tom Darden'; Neil Woodford; Saku Saha
Cc: Joe Pike
Subject: RE: Industrial Heat

Tom this is great news. We are delighted to be part of the LENR revolution. I am not sure about diaries for the rest of the team next week so will check with Zoe but I am sure I will be able to make myself available for an update. I'll come back to you later today with best timing.

Kind regards,
Paul

From: Tom Darden [mailto:tdarden@industrialheat.co]

Sent: 14 May 2015 05:10

To: Neil Woodford; Paul Lamacraft; Saku Saha

Cc: Joe Pike

Subject: Industrial Heat

Gentlemen:

The Industrial Heat funding closed earlier today, and I wanted to convey my deep appreciation to our British friends.

We are having an enormous impact on the LENR community, and we are building a great team and set of related technologies around Rossi's key innovation. We have much to do, but we have the resources we need and an open field in front of us. Thanks for being a critical part of our team. We are highly motivated to add value to your funds.

JT Vaughn and I would like to drop in sometime next week to give you an update. Would Wednesday or Thursday work for a morning meeting?

Again, thanks.

Tom Darden

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From: Paul Lamacraft <Paul.Lamacraft@woodfordfunds.com>
Sent: Friday, March 04, 2016 2:34 AM
To: JT Vaughn
Subject: RE: IH public statement

Hi JT,

This is clearly very disappointing given that Rossi's technology was a core element of the initial investment. Can you let me have sight of the statement please.

Many thanks,

Paul

Paul Lamacraft
Fund Manager

Woodford Investment Management LLP
9400 Garsington Road, Oxford
OX4 2HN, UK

T: 44 1865 809010 M: 44 7440 905 223

Twitter: @WoodfordFunds

Web: woodfordfunds.com

From: JT Vaughn [<mailto:jvaughn@industrialheat.co>]

Sent: 03 March 2016 20:56

To: Paul Lamacraft <Paul.Lamacraft@woodfordfunds.com>; Harry Raikes <harry.raikes@woodfordfunds.com>

Cc: Tom Darden <tdarden@industrialheat.co>; McLaughlin, Brian <BMcLaughlin@apcoworldwide.com>; Kight, April <akight@schellbray.com>; Neil Woodford <Neil@woodfordfunds.com>

Subject: IH public statement

Neil, Paul and Harry: I wanted to let you guys know that we will be releasing a public statement tomorrow morning at approximately 10:30AM ET concerning our position with regard to Rossi's technology. The statement will make it known that based on our experience, analysis and observations we are not in a position to announce the successful testing of his technology now or at any previous time. The statement will go on to talk about our portfolio of leading LENR technologies (aside from Andrea Rossi's technology) and announce (for the first time publicly), our serious engineering efforts presently underway. Net, net, our message is that notwithstanding anything associated with Rossi, we are excited about our portfolio and, along with our investors, we remain committed to the sector and commercializing an LENR technology.

Separately, earlier today and last night, some of the LENR enthusiasts discovered the valuation at which WIM invested in the last round and also the complete list of IH shareholders. This information was publicly available through the filed articles of IHHI in the UK.

I wanted to send this quick note to make you guys aware of these events and to give you a heads up that you may be receiving some inquiries.

Brian McLaughlin, with APCO Worldwide, is our PR manager and will shortly send some statements WIM may use in response to any inquiries.

If you have any questions, please let us know. I am boarding a flight now and will be airborne most of the rest of the day, but will respond when I can.

Best,
JT

--
JT Vaughn
Industrial Hcat
p: 919.670.2811
e: jvaughn@industrialheat.co

Confidentiality Note:

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November 2, 2015

Industrial Heat Business Development Update:

Sector Status

1. IH continues to lead and is increasingly being given credit for “unlocking the sector” with the Rossi investment.
2. Awareness and knowledge in the promise of LENR as a potential energy solution is steadily growing with broadening and unsolicited media coverage.
3. Gates has invested an initial \$6M into starting a LENR Program under Rob Duncan at Texas Tech University.
4. Airbus hosted a Colloquium for LENR researchers in late Oct and issued a challenge for a reactor with a COP of 3 and output of 700C. IH was in attendance and is in the process of developing a working relationship with the Airbus Chief Scientist.
5. The Japanese Govt has establish grant programs for LENR researchers in Japan. (\$31M in RFP funds identified to-date). IH is pursuing access to one or more of these grant programs
6. The Indian Govt authorized and funded 4 Universities to establish LENR research programs. IH has established a relationship with a leading advisor to that emerging Indian LENR program.
7. US Govt is funding LENR modeling research in the Nav/Sea Systems Command group at Dahlgren.
8. The lead NAV/SEA researcher reports that NASA has resumed its LENR reactor research program.

Additional Engagements:

1. La Gatta / TSEM US

- US lab established, testing underway
- Verbal update from TD

2. Letts Lab

- Construction of the High Temperature / Seebeck Reactor (2nd LT - LENR Tube reactor), thermal enclosure and test rig has been completed.
- The HT/SB design will allow Letts to test at higher temperatures and with faster turnaround times (hours instead of days) on experiments.
- The HT/SB has the potential to give us 10 to 100W of XP if it works as expected and is scalable beyond that initial range should the initial testing show promise.
- Calibration of lab power and measurement equipment will be completed by Nov. 15.
- Testing of the calorimeter is expected to be complete by Nov 23
- Plating / Loading of the LT is scheduled for late Nov along with the initial live runs of the system.

3. Cooper Core Tech

- Construction of CCT's 16 channel test system has been completed.
- The IH engineering team is working with CCT to debug and commission the system

INDUSTRIAL HEAT

- The complexity of the design and desire by CCT to move rapidly remains a challenge during the commissioning phase.
 - IH has reset expectations and significantly tightened milestones and associated spend as part of an attempt to assist CCT in focusing on near-term system baseline objectives.
 - IH has engineers on the ground this week at CCT as part of this effort.
 - Cooper's lead reactant researcher, Dennis Cravens, is staying in close collaboration with CCT & IH during this cycle.
 - IH thinks there is sustainable value to the CCT piezo and pyro resonance reaction model that they continue to develop with their Dartmouth chemist, Dr. Scott Gordon
- 4. Miley / Lenuco**
- Closing in Nov, 2015
- 5. Mizuno / HEAD**
- IH, along with Japanese counsel, have been assisting Mizuno in cleaning up a previously unknown contractual arrangement that hindered the original IH investment.
 - Mizuno has continued his research and is reporting 15W of excess heat on 20W input power.
 - IH has submitted a revised contract / proposal to Mizuno and expects to have him fully engaged with IH control of IP in the coming weeks.
 - IH is also assisting Mizuno in the pursuit of substantial grant funding that has been allocated by various groups within the Japanese Govt.
- 6. Peter Hagelstein / MIT:**
- The working relationship with Hagelstein continues to grow as his model development continues to solve with most available datasets.
 - Hagelstein was in Raleigh in mid-Oct teaching his hydrogen / deuterium metal loading methodology as well as explaining background research to the IH engineering team.
 - He may have a baseline experiment that proves resonant metal energy extraction using stainless steel and a waterjet. This is very significant should it be confirmed.
 - Hagelstein believes the resonant metal energy technology could be eligible for monetization in 18 to 24 months should the ongoing experiments and test results continue to be successful.
 - Hagelstein has a lab / Phd candidate ready to test a Nanor and expects one to be delivered / tested in Q4.
- 7. Tom Claytor / High Mesa Labs:**
- Tom Claytor and Malcolm Fowler have partnered with IH to test materials and gases from IH funded reactors. Both of these gentlemen are retired Los Alamos (LANL) scientist and are considered world experts in their fields.
 - IH has gotten access to the highest resolution analytical systems at LANL thru an agreement with High Mesa and is expecting test results on post reaction materials from Mizuno and Letts reactors in mid-to-late Q4.



Under Development:

1. Curt Brown / PointSource

- IH is still in negotiations with Pointsource around technical due diligence needed to advance to the termsheet stage.
- Brown remains hesitant to share the necessary details and this project is presently stalled.

2. Etiam Oy, Finland

- LENR IP portfolio has been developed by this company and put up for bid.
- IH submitted a bid along with a proposal for additional negotiation following further due diligence. It appears to Etiam Oy has allowed claims in their patent application filings and that should lead to issued patents in both the USA and EU.

3. Mitchell Swartz / Nanor

- Swartz continues to report progress with COPs up to 20.
- He advises that MIT will be independently testing the Nanor reactor this Qtr.
- IH will continue to monitor his progress

4. Jean-Paul Biberian – France

- IH is funding a Rossi / Parkomov replication effort with Biberian, a retired nuclear physicist and leading research reviewer for the field at his lab in Avignon.
- Results are inconclusive to date
- IH is also funding a replication of the Fleishman and Pons boil-off experiment thru Biberian with Stan Pons confidentially coming out of retirement (and hiding) to assist in the project.

5. Fabrice David – France

- IH is developing a relationship with this long term LENR researcher who claims to have a direct-to-electron movement reactor design.

6. Roger Stringham – Hawaii

- Stringham has been a long-term proponent of Sono-luminescence / cavitation fusion using high frequency acoustics.
- Stringham has morphed his concept over electro-magnetic triggering (piezo approach) and is getting excess heat and energetic particles on demand in a shoebox size reactor.
- Tom Claytor at High Mesa labs has confirmed that some excess power reaction appears to be taking place in Stringham's latest reactor.
- Stringham has invited IH to review his latest reactor, to assist with IP and to invest in validating his approach as well as develop a monetization strategy.
- IH is in preliminary due diligence for this project.

INDUSTRIAL HEAT

7. Iraj Parchmajad / Mel Miles, Los Angeles

- IH discovered this Zeolyte-based LENR research program at ICCF-19 in Padua, Italy
- Miles is a retired US Navy electro-chemist who led the China Lake LENR research project in the 1990s before it was shutdown by the Navy's hot fusion contingent.
- IH is in the preliminary due diligence phase for this project.

8. David Fojt – MDI, France

- Discovered this Ni-H research project at the Airbus meeting.
- Initial discussions are beginning around MDI's research effort which may be in conjunction with Renault.

9. Bob Higgins / Mathieu Valat, Martin Fleishman Memorial Project

- Bob Higgins was the lead researcher for a stealth LENR program that Motorola had to shed with the sale of the company. He has partnered with a French Scientist along with others for an open source replication project of Rossi. Results to date are inconclusive.
- IH has been approached separately by Higgins and Valat about possible research engagements with the company.
- IH is carefully and deliberately grooming these potential relationships.

From: Paul Lamacraft <Paul.Lamacraft@woodfordfunds.com>
Sent: Friday, March 04, 2016 2:34 AM
To: JT Vaughn
Subject: RE: IH public statement

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Paul Lamacraft
Fund Manager

Woodford Investment Management LLP
9400 Garsington Road, Oxford
OX4 2HN, UK

T: 44 1865 809010 M: 44 7440 905 223

Twitter: @WoodfordFunds

Web: woodfordfunds.com

From: JT Vaughn [<mailto:jvaughn@industrialheat.co>]

Sent: 03 March 2016 20:56

To: Paul Lamacraft <Paul.Lamacraft@woodfordfunds.com>; Harry Raikes <harry.raikes@woodfordfunds.com>

Cc: Tom Darden <tdarden@industrialheat.co>; McLaughlin, Brian <BMcLaughlin@apcoworldwide.com>; Kight, April <akight@schellbray.com>; Neil Woodford <Neil@woodfordfunds.com>

Subject: IH public statement

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If you have any questions, please let us know. I am boarding a flight now and will be airborne most of the rest of the day, but will respond when I can.

Best,
JT

--

JT Vaughn
Industrial Hcat
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e: jvaughn@industrialheat.co

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From: fabiopenon@iol.it
Sent: Tuesday, March 29, 2016 1:38 PM
To: tdarden@industrialheat.co; ar.123@mail.com
Subject: Energy multiple final report
Attachments: attachment-1.pdf; attachment-2.pdf; attachment-3.pdf; attachment-4.pdf; attachment-5.pdf; attachment-6.pdf; attachment-7.pdf; attachment-8.pdf; attachment-9.pdf; attachment-10.pdf; attachment-11.pdf; attachment-12.pdf; attachment-13.pdf; attachment-14.pdf

Dear Sirs,

please find attached the Final report

I am sending it to you in advance by e-mail, while the paper copy will be mailed by registered mail to both of you.

Sincerely

Dr. Ing. Fabio Penon

Final Report Annexe 4: Daily valuation of the energy multiple - MAY 2015

		days of functioning	average power supply (Kwh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
04/30 22:30	05/01 22:30	66	10,25	246000	70,8	36000	32400	103,4	0.0	2,03E+07	82,6
05/01 22:30	05/02 22:30	67	10,29	247000	69,1	36000	32400	103,9	0.0	2,03E+07	82,3
05/02 22:30	05/03 22:30	68	10,29	247000	71,4	36000	32400	103,9	0.0	2,03E+07	82,3
05/03 22:30	05/04 22:30	69	9,96	239000	69,7	35000	31500	103,9	0.0	1,98E+07	82,7
05/04 22:30	05/05 22:30	70	10,67	256000	71,4	36000	32400	103,4	0.0	2,03E+07	79,4
05/05 22:30	05/06 22:30	71	10,29	247000	70,3	36000	32400	103,4	0.0	2,03E+07	82,3
05/06 22:30	05/07 22:30	72	10,21	245000	70,3	35000	31500	103,9	0.0	1,98E+07	80,7
05/07 22:30	05/08 22:30	73	10,12	243000	70,3	36000	32400	103,9	0.0	2,03E+07	83,7
05/08 22:30	05/09 22:30	74	10,25	246000	70,8	36000	32400	104,5	0.0	2,03E+07	82,6
05/09 22:30	05/10 22:30	75	9,96	239000	73,1	36000	32400	104,5	0.0	2,03E+07	85,1
05/10 22:30	05/11 22:30	76	10,33	248000	70,3	32000	28800	104,5	0.0	1,81E+07	72,9
05/11 22:30	05/12 22:30	77	10,33	244000	71,4	34000	30600	104,5	0.0	1,92E+07	78,7
05/12 22:30	05/13 22:30	78	10,29	245000	70,8	35000	31500	104,5	0.0	1,98E+07	80,7
05/13 22:30	05/14 22:30	79	10,25	246000	70,3	36000	32400	104,5	0.0	2,03E+07	82,6
05/14 22:30	05/15 22:30	80	10,21	245000	70,8	34000	30600	104,5	0.0	1,92E+07	78,4
05/15 22:30	05/16 22:30	81	8,67	208000	70,3	29000	26100	104,5	0.0	1,64E+07	78,7
05/16 22:30	05/17 22:30	82	10,28	247000	69,1	38000	34200	104,5	0.0	2,15E+07	86,9

Final Report Annexe 4: Daily valuation of the energy multiple - MAY 2015

		days of functioning	average power supply (Kwh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
05/17 22:30	05/18 22:30	83	10	240000	70,3	29000	26100	104,5	0.0	1,64E+07	68,2
05/18 22:30	05/19 22:30	84	10,39	249600	70,8	30000	27000	104,5	0.0	1,69E+07	67,9
05/19 22:30	05/20 22:30	85	10,22	245100	70,3	36000	32400	104,5	0.0	2,03E+07	82,9
05/20 22:30	05/21 22:30	86	10,09	242100	69,7	36000	32400	105,1	0.0	2,03E+07	84,0
05/21 22:30	05/22 22:30	87	10,17	244000	81,5	38000	34200	105,1	0.0	2,15E+07	88,0
05/22 22:30	05/23 22:30	88	10,22	245200	78,4	34000	30600	104,5	0.0	1,92E+07	78,3
05/23 22:30	05/24 22:30	89	10,46	251000	78,4	36000	32400	104,5	0.0	2,03E+07	81,0
05/24 22:30	05/25 22:30	90	10,29	247000	76,8	36000	32400	104,5	0.0	2,03E+07	82,3
05/25 22:30	05/26 22:30	91	10,38	249000	78,4	36000	32400	104,5	0.0	2,03E+07	81,7
05/26 22:30	05/27 22:30	92	10,59	254000	80	36000	32400	104,5	0.0	2,03E+07	80,0
05/27 22:30	05/28 22:30	93	9,75	234000	81,5	36000	32400	104,5	0.0	2,03E+07	86,9
05/28 22:30	05/29 22:30	94	10,38	249000	80	36000	32400	104,5	0.0	2,03E+07	81,7
05/29 22:30	05/30 22:30	95	9,17	220000	83	36000	32400	104,5	0.0	2,03E+07	92,4
05/30 22:30	05/31 22:30	96	9,67	232000	80	36000	32400	104,5	0.0	2,03E+07	87,6

Final Report Annexe 3: Daily valuation of the energy multiple - APRIL 2015

		days of functioning	average power supply (Kwh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
03/31 22:30	04/01 22:30	37	10,25	246000	69,1	36000	32400	103,9	0.0	2,03E+07	82,6
04/01 22:30	04/02 22:30	38	10,29	247000	69,1	36000	32400	103,9	0.0	2,03E+07	82,3
04/02 22:30	04/03 22:30	39	10,67	256000	68,6	36000	32400	103,9	0.0	2,03E+07	79,4
04/03 22:30	04/04 22:30	40	10,21	247000	68	36000	32400	103,9	0.0	2,03E+07	82,3
04/04 22:30	04/05 22:30	41	10,29	247000	68,6	36000	32400	103,9	0.0	2,03E+07	82,3
04/05 22:30	04/06 22:30	42	9,96	239000	69,1	36000	32400	103,9	0.0	2,03E+07	85,1
04/06 22:30	04/07 22:30	not measure	not measured	not measured	not measured	not measured	not measured	not measured	not measured	not measured	not measure
04/07 22:30	04/08 22:30	43	9,92	238000	69,1	36000	32400	103,9	0.0	2,03E+07	85,4
04/08 22:30	04/09 22:30	44	10,54	253000	69,1	28000	25200	103,9	0.0	1,58E+07	62,5
04/09 22:30	04/10 22:30	45	10,55	253000	69,1	38000	34200	103,9	0.0	2,15E+07	84,8
04/10 22:30	04/11 22:30	46	10,75	258000	69,1	36000	32400	103,9	0.0	2,03E+07	78,8
04/11 22:30	04/12 22:30	47	10,64	253000	68,6	37000	33300	103,9	0.0	2,09E+07	82,6
04/12 22:30	04/13 22:30	48	10,67	256000	68,6	36000	32400	103,9	0.0	2,03E+07	79,4
04/13 22:30	04/14 22:30	49	10,64	255000	69,1	36000	32400	103,9	0.0	2,03E+07	79,7
04/14 22:30	04/15 22:30	50	10,5	252000	68,6	36000	32400	103,9	0.0	2,03E+07	80,7
04/15 22:30	04/16 22:30	51	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/16 22:30	04/17 22:30	52	10,59	254000	68,6	36000	32400	103,9	0.0	2,03E+07	80,0

Final Report Annexe 3: Daily valuation of the energy multiple - APRIL 2015

		days of functioning	average power supply (Kwh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
04/17 22:30	04/18 22:30	53	10,46	251000	69,1	36000	32400	103,9	0.0	2,03E+07	81,0
04/18 22:30	04/19 22:30	54	10,54	253000	68,6	39000	35100	103,9	0.0	2,20E+07	87,1
04/19 22:30	04/20 22:30	55	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/20 22:30	04/21 22:30	56	10,46	251000	69,7	36000	32400	103,9	0.0	2,03E+07	81,0
04/21 22:30	04/22 22:30	57	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/22 22:30	04/23 22:30	58	10,67	256000	69,1	36000	32400	103,9	0.0	2,03E+07	79,4
04/23 22:30	04/24 22:30	59	10,59	254000	69,1	36000	32400	103,9	0.0	2,03E+07	80,0
04/24 22:30	04/25 22:30	60	10,75	258000	69,1	36000	32400	103,9	0.0	2,03E+07	78,8
04/25 22:30	04/26 22:30	61	10,54	253000	68,6	36000	32400	103,9	0.0	2,03E+07	80,4
04/26 22:30	04/27 22:30	62	10,55	253000	68,6	36000	32400	103,9	0.0	2,03E+07	80,4
04/27 22:30	04/28 22:30	63	10,34	248000	69,1	36000	32400	103,9	0.0	2,03E+07	82,0
04/28 22:30	04/29 22:30	64	10,25	246000	69,1	36000	32400	103,9	0.0	2,03E+07	82,6
04/29 22:30	04/30 22:30	65	10,29	247000	69,7	36000	32400	103,9	0.0	2,03E+07	82,3

id

Final Report Annexe 2: Daily valuation of the energy multiple - MARCH 2015

		days of functioning	average power supply (Kwh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
02/28 22:30	03/01 22:30	6	10,59	254000	69,7	36000	32400	104,5	0.0	2,03E+07	80,0
04/01 22:30	04/02 22:30	7	10,46	251000	69,1	36000	32400	104,5	0.0	2,03E+07	81,0
03/02 22:30	03/03 22:30	8	9,92	238000	69,7	36000	32400	104,5	0.0	2,03E+07	85,4
03/03 22:30	03/04 22:30	9	10,56	253000	69,7	36000	32400	104,5	0.0	2,03E+07	80,4
03/04 22:30	03/05 22:30	10	10,63	255000	69,1	36000	32400	104,5	0.0	2,03E+07	79,7
03/05 22:30	03/06 22:30	11	10,63	255000	69,1	36000	32400	103,9	0.0	2,03E+07	79,7
03/06 22:30	03/07 22:30	12	10,5	252000	68,6	36000	32400	103,9	0.0	2,03E+07	80,7
03/07 22:30	03/08 22:30	13	10,59	259000	69,1	36000	32400	103,9	0.0	2,03E+07	78,5
03/08 22:30	03/09 22:30	14	10,21	245000	69,1	36000	32400	103,9	0.0	2,03E+07	83,0
03/09 22:30	03/10 22:30	15	10,67	256000	69,1	36000	32400	104,5	0.0	2,03E+07	79,4
03/10 22:30	03/11 22:30	16	10,63	255000	69,7	36000	32400	104,5	0.0	2,03E+07	79,7
03/11 22:30	03/12 22:30	17	10,54	253000	69,7	36000	32400	104,5	0.0	2,03E+07	80,4
03/12 22:30	03/13 22:30	18	10,63	255000	69,7	36000	32400	104,5	0.0	2,03E+07	79,7
03/13 22:30	03/14 22:30	19	10,63	255000	69,7	36000	32400	103,9	0.0	2,03E+07	79,7
03/14 22:30	03/15 22:30	20	10,5	252000	69,1	36000	32400	103,9	0.0	2,03E+07	80,7
03/15 22:30	03/16 22:30	21	10,79	259000	69,1	36000	32400	103,9	0.0	2,03E+07	78,5
03/16 22:30	03/17 22:30	22	10,25	246000	68,6	36000	32400	103,9	0.0	2,03E+07	82,6

Final Report Annexe 2: Daily valuation of the energy multiple - MARCH 2015

		days of functioning	average power supply (Kwh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
03/17 22.30	03/18 22:30	23	10,46	251000	68,6	36000	32400	103,9	0.0	2,03E+07	81,0
03/18 22.30	03/19 22:30	24	10,29	247000	68,6	38000	34200	103,9	0.0	2,15E+07	86,9
03/19 22.30	03/20 22:30	25	10,63	255000	68,6	36000	32400	103,9	0.0	2,03E+07	79,7
03/20 22.30	03/21 22:30	26	10,54	253000	68,6	36000	32400	103,9	0.0	2,03E+07	80,4
03/21 22.30	03/22 22:30	27	10,58	255000	68,6	36000	32400	103,9	0.0	2,03E+07	79,7
03/22 22.30	03/23 22:30	28	10,63	255000	68,6	36000	32400	103,9	0.0	2,03E+07	79,7
03/23 22.30	03/24 22:30	29	10,5	252000	69,1	36000	32400	103,9	0.0	2,03E+07	80,7
03/24 22.30	03/25 22:30	30	10,79	259000	69,1	36000	32400	103,9	0.0	2,03E+07	78,5
03/25 22.30	03/26 22:30	31	10,59	254000	68,6	36000	32400	103,9	0.0	2,03E+07	80,0
03/26 22.30	03/27 22:30	32	10,46	251000	66,9	36000	32400	103,9	0.0	2,03E+07	81,0
03/27 22.30	03/28 22:30	33	10,5	252000	66,9	36000	32400	103,9	0.0	2,03E+07	80,7
03/28 22.30	03/29 22:30	34	10,54	253000	68,6	36000	32400	104,5	0.0	2,03E+07	80,4
03/29 22.30	03/30 22:30	35	10,55	258000	69,1	36000	32400	103,9	0.0	2,03E+07	78,8
03/30 22.30	03/31 22:30	36	10,34	248000	68,6	36000	32400	103,9	0.0	2,03E+07	82,0

Final Report Annexe 1: Daily valuation of the energy multiple - FEBRUARY 2015

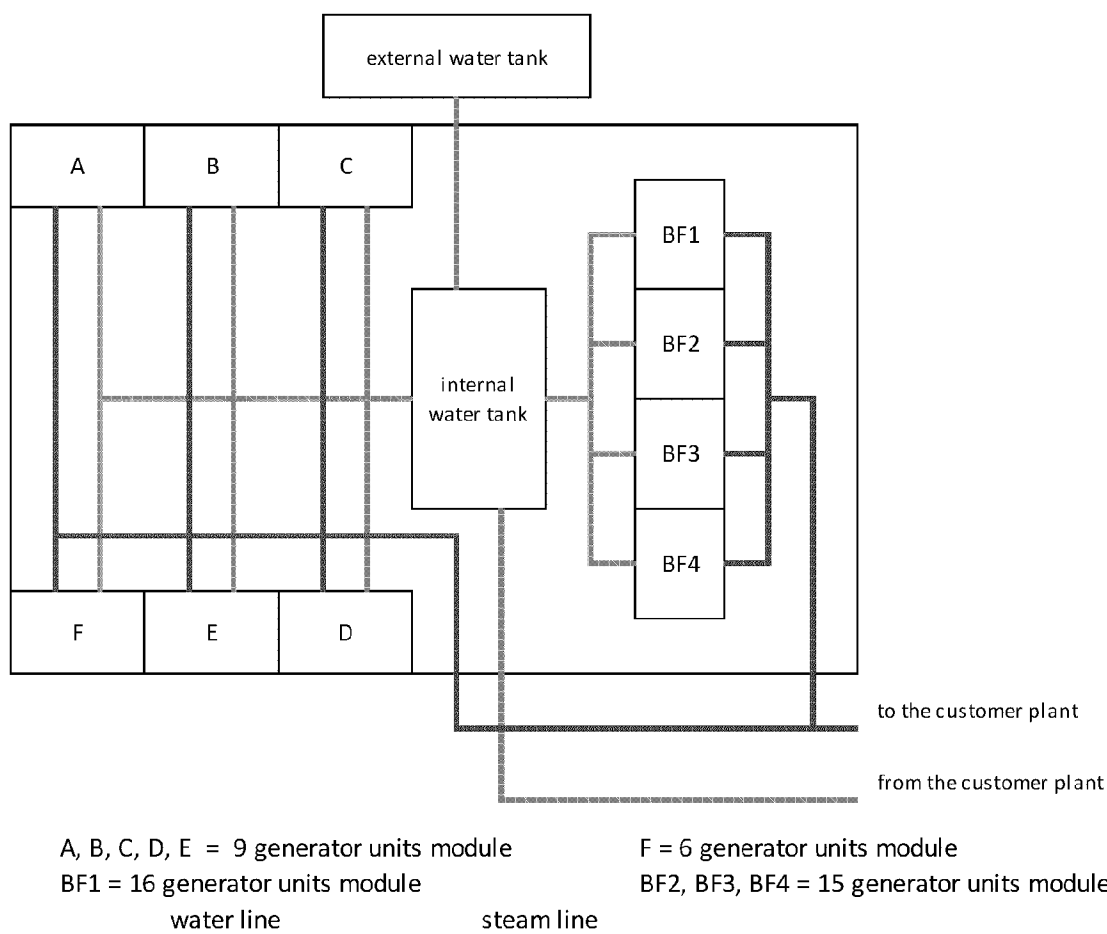
E-CAT MW1 ENERGY PLANT IN MIAMI ENERGY MULTIPLE EVALUATION FINAL REPORT

1. Plant description

The MW1-USA plant under test is installed in Doral, FL 33166, 7861 NW 46th Street and consists of 115 power generation units, grouped in modules.

In figure 1 the thermohydraulic diagram of the plant is reported

Figure 1: Thermohydraulic diagram of the plant



Every unit absorbs a power of about 1.1 kW – 2.5 kW

Each unit consists of a reaction chamber, where the nickel powder reacts with the hydrogen in the presence of a catalyst.

Electric heaters heat the reaction chamber and by this way trigger the reaction between nickel and hydrogen.

The power panel regulates the power supply of the electric heaters

The cooling water is contained in a tank, placed inside the plant, that receives the water from an external plant.

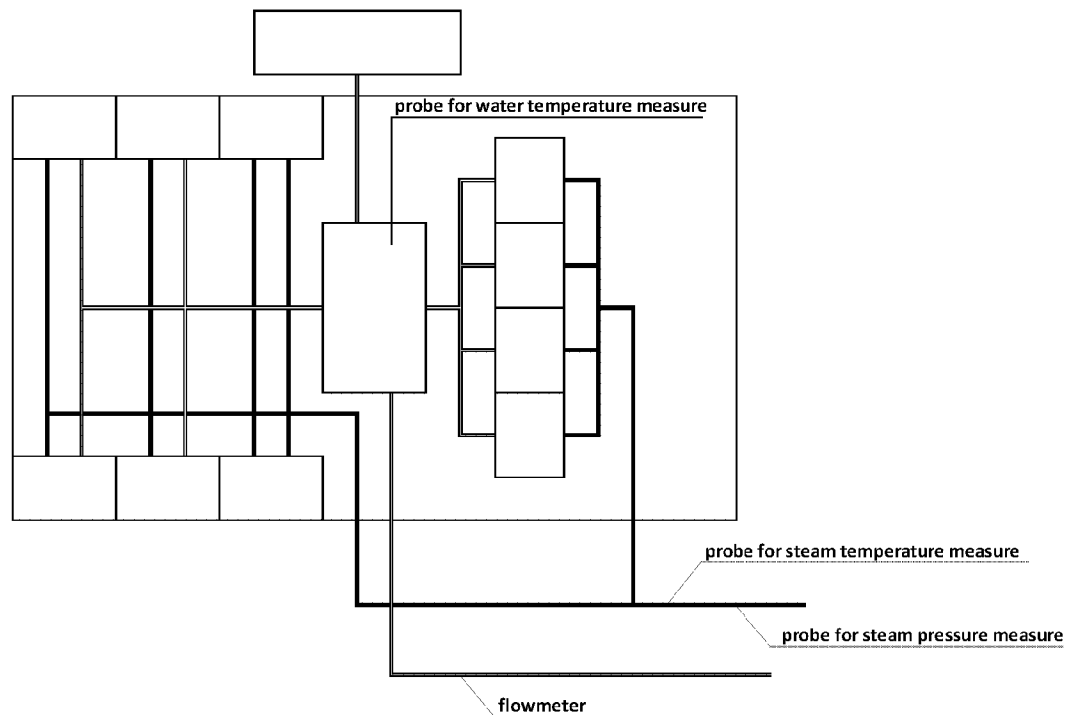
It is conveyed by pumps in the units E-Cat, where it is heated to vaporize. The steam is collected in one tube of the steam line, which conveys it to the outside of the shelter.

The steam is then passed through the customer's facility, where it cools up to its condensation.

The water is so recycled to the internal tank in a closed loop. The water is distilled water. The external tank is connected with the internal tank, by a water line and a floating valve, so that the level of water inside the internal tank is maintained constant. The water flows from the external tank into the internal tank by gravity.

The heating elements of the E-Cat units, the pumps for the water, the internal services to the shelter and the control panel are powered by the public grid

Figure 2: Position of the thermohydraulic measuring instrumentation



In the plant some measuring instruments are installed:

- flowmeter for measuring the flow rate of cooling water inlet into the shelter.
It is located along the line of return of the water, between the plant of the Customer and the 1 MW E-Cat and it is entirely filled with water
- temperature probe for measuring the cooling water temperature at the inlet of the shelter.
It is located in the internal water tank, containing cooling distilled water
- temperature probe for measuring steam temperature at the outlet of the shelter.
It is located along the steam pipe at the outside of the shelter
- pressure probe for measuring steam pressure at the outlet of the shelter.
It is located along the steam pipe at the outside of the shelter

- power analyzer for measuring the power supply.
It is located along the electric power line before the E-Cat

Figure 2 shows where the instrumentation to measure thermohydraulic characteristics is positioned in the thermohydraulic circuit

The measurement equipment has been placed and operates in a manner that it is not necessary to study the client's use of the energy produced or even inquire about such use.

2. Calculation of the energy multiple

2.1 Calculation of the energy produced (E_P)

The energy produced by power generator units is given by the sum of the heat of heating of water, heat of vaporization of water and heat of superheating the steam.

$$E_P = E_R + E_V + E_S$$

$$E_R \text{ (energy of heating of water up to } 100^\circ\text{C)} = M_W \times C_{SW} \times (T_{VW} - T_{IW})$$

where

M_W = mass of water vaporized during the whole test, coming from tank

T_{IW} = inlet temperature of the water, coming from tank

C_{SW} = specific heat of water = 1,14 Wh/(kg $^\circ$ K)

T_{VW} = vaporization temperature of the water = 100 $^\circ$ C

$$E_V \text{ (energy of vaporization of water)} = \lambda \times M_W$$

$$\lambda = \text{(latent energy of vaporization)} = 627,5 \text{ Wh/kg}$$

$$E_S \text{ (heating energy of steam)} = M_S \times C_{PS} \times (T_{OS} - T_{VW})$$

M_S = mass of steam produced during the whole test

C_{PS} = specific heat of steam at constant pressure = 0,542 Wh/kg

T_{OS} = outlet temperature of the steam

T_{VW} = vaporization temperature of the water

The values refer to the atmospheric pressure

In order to be conservative:

- it has been not taken into account the heating energy of water and the heating energy of steam

- the temperature of the incoming water has been always considered to be equal to the maximum value of the same, measured during the entire test day

There has been small leaks of water to the inside of the shelter.

Measurement uncertainties have been present during the test

To take this into account the total mass of water transited during the test period has been reduced by 10%.

- the water meter measures in m³ without decimals

The calculation of the COP has been made by transforming m³ in thousand kg of water and using always an approximation by defect.

By this way the mass of water from 0.001 m^3 to 0.999 m^3 (i.e. from 1 to 999 kg) has not be taken in account

Consequently
 $E_p = 0.9 \times \lambda \times M_w$

2.2 Calculation of the energy absorbed (E_a)

The energy has been supplied from the public grid

In order to be conservative:

- all the supplied energy was supposed absorbed by the reactors

In reality a part of this energy feeds the pump, which conveys the water from the tank external to the reactors This energy doesn't feed the reactors

2.3 Calculation of the 'energy multiple'

$$\text{Energy multiple} = \frac{\text{energy produced (} E_p \text{)}}{\text{energy absorbed (} E_a \text{)}} = \frac{0.9 \times \lambda \times M_w}{E_a}$$

3. Test development

The plant test has been started up on 02/23/2015 at 10.30 p.m.

The energy multiple has been valuated every 24 hours, following physico-mathematical model described in par 2.2

The plant test has been completed on 02/16/2016 at 10.30 a.m.

During the test the ERV has made 4 visits:

- the first on 02/16-18/2015
- the second on 05/18-20/2015
- the third on 10/12-14/2015
- the forth on 02/15-17/2016

During his visits, the ERV was assisted by ing. F. Fabiani and by doc. A. Rossi and, except during the fourth visit, by Mr B. West.

The results are reported in these annexes

- Annexe 1 Daily valuation of the energy multiple: February 2015
- Annexe 2 Daily valuation of the energy multiple: March 2015
- Annexe 3 Daily valuation of the energy multiple: April 2015
- Annexe 4 Daily valuation of the energy multiple: May 2015
- Annexe 5 Daily valuation of the energy multiple: June 2015
- Annexe 6 Daily valuation of the energy multiple: July 2015
- Annexe 7 Daily valuation of the energy multiple: August 2015
- Annexe 8 Daily valuation of the energy multiple: September 2015
- Annexe 9 Daily valuation of the energy multiple: October 2015
- Annexe 10 Daily valuation of the energy multiple: November 2015
- Annexe 11 Daily valuation of the energy multiple: December 2015
- Annexe 12 Daily valuation of the energy multiple: January 2016
- Annexe 13 Daily valuation of the energy multiple: February 2016

4. Data analysis

The test lasted 357 days.

On 04/07/15 during about 24 hours it was not possible to make measurement because of lack of energy supply by public grid

On 06/08/15 for several hours the energy supply has been stopped for safety reasons

(in order to be conservative it has considered 24 hours)

On 07/28/15 for several hours the power analyzer didn't work properly

(in order to be conservative it has considered 24 hours)

On 01/05/16 for several hours the power analyzer didn't work properly

(in order to be conservative it has considered 24 hours)

On 02/15/16 for several hours the power analyzer didn't work properly

(in order to be conservative it has considered 24 hours)

Consequently the measures concern 352 days of functioning plant

During each day of operation, the temperature of the water was always well below 100° C

(see annexes)

During each day of operation, the temperature of the steam was always higher than 100°C

(see annexes)

During each day of operation the 'Energy multiple', was always higher than 6.

Consequently the ERV certifies that for a period of 350 days, not consecutives, the temperature of the steam produced by the plant was greater than 100°C and the Plant consistently produced energy that it is at least six times greater than the energy consumed by the Plant.

Definitely the guaranteed performances standards have been achieved for the test period

Abano Terme, 03/28/2016

POIESIS srl
Dr Ing Fabio Penon

Final Report Annexe 13: Daily valuation of the energy multiple - FEBRUARY 2016

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
01/31 22.30	02/01 22:30	339	10291,7	247000	68,1	36000	32400	104,6	0.0	2,03E+07	82,3
02/01 22.30	02/02 22:30	340	10375,0	249000	68,5	36000	32400	104,7	0.0	2,03E+07	81,7
02/02 22.30	02/03 22:30	341	10375,0	249000	69,2	36000	32400	104,7	0.0	2,03E+07	81,7
02/03 22.30	02/04 22:30	342	10375,0	249000	69,6	36000	32400	104,7	0.0	2,03E+07	81,7
02/04 22.30	02/05 22:30	343	10500,0	252000	70	36000	32400	104,7	0.0	2,03E+07	80,7
02/05 22.30	02/06 22:30	344	10333,3	248000	68,5	36000	32400	104,6	0.0	2,03E+07	82,0
02/06 22.30	02/07 22:30	345	10291,7	247000	70,3	36000	32400	104,7	0.0	2,03E+07	82,3
02/07 22.30	02/08 22:30	346	10375,0	249000	68,5	36000	32400	104,7	0.0	2,03E+07	81,7
02/08 22.30	02/09 22:30	347	10291,7	247000	68,5	36000	32400	104,7	0.0	2,03E+07	82,3
02/09 22.30	02/10 22:30	348	10291,7	247000	68,5	36000	32400	104,7	0.0	2,03E+07	82,3
02/10 22.30	02/11 22:30	349	10458,3	251000	68,9	36000	32400	104,6	0.0	2,03E+07	81,0
02/11 22.30	02/12 22:30	350	10458,3	251000	68,5	36000	32400	104,6	0.0	2,03E+07	81,0
02/12 22.30	02/13 22:30	351	10458,3	251000	68,9	36000	32400	103,6	0.0	2,03E+07	81,0
02/13 22.30	02/14 22:30	352	10375,0	249000	68,5	36000	32400	103,6	0.0	2,03E+07	81,7
02/14 22.30	02/15 22:30	-	10375,0	249000	68,9	36000	32400	103,9	0.0	2,03E+07	81,7

Final Report Annexe 12: Daily valuation of the energy multiple - JANUARY 2016

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water (Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
12/31 22:30	01/01 22:30	309	10458,3	251000	70,1	36000	32400	104,5	0.0	2,03E+07	81,0
01/01 22:30	01/02 22:30	310	10375,0	249000	68,5	36000	32400	104,5	0.0	2,03E+07	81,7
01/02 22:30	01/03 22:30	311	10375,0	249000	68,5	36000	32400	104,5	0.0	2,03E+07	81,7
01/03 22:30	01/04 22:30	312	10375,0	249000	68,5	36000	32400	104,5	0.0	2,03E+07	81,7
01/04 22:30	01/05 22:30	-	NR	NR	68,9	36000	32400	104,6	0.0	2,03E+07	NR
01/05 22:30	01/06 22:30	313	10375,0	249000	69,2	36000	32400	104,5	0.0	2,03E+07	81,7
01/06 22:30	01/07 22:30	314	10375,0	249000	69,6	36000	32400	104,5	0.0	2,03E+07	81,7
01/07 22:30	01/08 22:30	315	10500,0	252000	69,6	36000	32400	104,5	0.0	2,03E+07	80,7
01/08 22:30	01/09 22:30	316	10416,7	250000	69,2	36000	32400	104,5	0.0	2,03E+07	81,3
01/09 22:30	01/10 22:30	317	10458,3	251000	69,2	36000	32400	104,5	0.0	2,03E+07	81,0
01/10 22:30	01/11 22:30	318	10416,7	250000	69,2	36000	32400	104,5	0.0	2,03E+07	81,3
01/11 22:30	01/12 22:30	319	10291,7	247000	69,2	36000	32400	104,5	0.0	2,03E+07	82,3
01/12 22:30	01/13 22:30	320	10416,7	250000	69,2	36000	32400	104,5	0.0	2,03E+07	81,3
01/13 22:30	01/14 22:30	321	10500,0	252000	69,2	36000	32400	104,5	0.0	2,03E+07	80,7
01/14 22:30	01/15 22:30	322	10333,3	248000	69,2	36000	32400	104,5	0.0	2,03E+07	82,0
01/15 22:30	01/16 22:30	323	10291,7	247000	69,2	36000	32400	104,5	0.0	2,03E+07	82,3
01/16 22:30	01/17 22:30	324	10416,7	250000	69,2	36000	32400	104,6	0.0	2,03E+07	81,3

Final Report Annexe 12: Daily valuation of the energy multiple - JANUARY 2016

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
01/17 22:30	01/18 22:30	325	10375,0	249000	69,2	36000	32400	104,5	0.0	2,03E+07	81,7
01/18 22:30	01/19 22:30	326	10375,0	249000	68,9	36000	32400	104,5	0.0	2,03E+07	81,7
01/19 22:30	01/20 22:30	327	10291,7	247000	68,9	36000	32400	104,5	0.0	2,03E+07	82,3
01/20 22:30	01/21 22:30	328	10333,3	248000	68,5	36000	32400	104,5	0.0	2,03E+07	82,0
01/21 22:30	01/22 22:30	329	10375,0	249000	68,9	36000	32400	104,5	0.0	2,03E+07	81,7
01/22 22:30	01/23 22:30	330	10333,3	248000	68,9	36000	32400	103,7	0.0	2,03E+07	82,0
01/23 22:30	01/24 22:30	331	10416,7	250000	68,9	36000	32400	103,6	0.0	2,03E+07	81,3
01/24 22:30	01/25 22:30	332	10250,0	246000	68,5	36000	32400	104,5	0.0	2,03E+07	82,6
01/25 22:30	01/26 22:30	333	10333,3	248000	68,5	36000	32400	104,5	0.0	2,03E+07	82,0
01/26 22:30	01/27 22:30	334	10375,0	249000	68,5	36000	32400	104,6	0.0	2,03E+07	81,7
01/27 22:30	01/28 22:30	335	10458,3	251000	68,5	36000	32400	104,6	0.0	2,03E+07	81,0
01/28 22:30	01/29 22:30	336	10458,3	251000	68,5	36000	32400	104,6	0.0	2,03E+07	81,0
01/29 22:30	01/30 22:30	337	10416,7	250000	68,5	36000	32400	104,6	0.0	2,03E+07	81,3
01/30 22:30	01/31 22:30	338	10333,3	248000	68,5	36000	32400	104,6	0.0	2,03E+07	82,0

Final Report Annexe 11: Daily valuation of the energy multiple - DECEMBER 2015

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water (Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
11/30 22:30	12/01 22:30	278	11166,7	268000	71,1	36000	32400	104,8	0.0	2,03E+07	75,9
12/01 22:30	12/02 22:30	279	9666,7	232000	69,4	26000	23400	104,7	0.0	1,47E+07	63,3
12/02 22:30	12/03 22:30	280	8416,7	202000	69,8	25000	22500	104,8	0.0	1,41E+07	69,9
12/03 22:30	12/04 22:30	281	8250,0	198000	69,8	25000	22500	104,8	0.0	1,41E+07	71,3
12/04 22:30	12/05 22:30	282	8250,0	198000	70,2	25000	22500	104,7	0.0	1,41E+07	71,3
12/05 22:30	12/06 22:30	283	8416,7	202000	70,5	25000	22500	104,7	0.0	1,41E+07	69,9
12/06 22:30	12/07 22:30	284	8250,0	198000	70,5	25000	22500	104,8	0.0	1,41E+07	71,3
12/07 22:30	12/08 22:30	285	8458,3	203000	70,9	25000	22500	104,8	0.0	1,41E+07	69,6
12/08 22:30	12/09 22:30	286	8250,0	198000	70,5	25000	22500	104,8	0.0	1,41E+07	71,3
12/09 22:30	12/10 22:30	287	8458,3	203000	70,5	25000	22500	104,8	0.0	1,41E+07	69,6
12/10 22:30	12/11 22:30	288	8208,3	197000	70,5	25000	22500	104,8	0.0	1,41E+07	71,7
12/11 22:30	12/12 22:30	289	8416,7	202000	70,5	25000	22500	104,7	0.0	1,41E+07	69,9
12/12 22:30	12/13 22:30	290	8333,3	200000	70,5	25000	22500	104,8	0.0	1,41E+07	70,6
12/13 22:30	12/14 22:30	291	8333,3	200000	70,5	25000	22500	104,8	0.0	1,41E+07	70,6
12/14 22:30	12/15 22:30	292	8333,3	200000	70,5	25000	22500	104,9	0.0	1,41E+07	70,6
12/15 22:30	12/16 22:30	293	8333,3	200000	70,5	25000	22500	105	0.0	1,41E+07	70,6
12/16 22:30	12/17 22:30	294	8291,7	199000	70,5	25000	22500	104,5	0.0	1,41E+07	70,9

Final Report Annexe 11: Daily valuation of the energy multiple - DECEMBER 2015

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
12/17 22:30	12/18 22:30	295	8291,7	199000	70,5	25000	22500	104,5	0.0	1,41E+07	70,9
12/18 22:30	12/19 22:30	296	8208,3	197000	70,2	25000	22500	104,5	0.0	1,41E+07	71,7
12/19 22:30	12/20 22:30	297	8375,0	201000	70,2	25000	22500	104,6	0.0	1,41E+07	70,2
12/20 22:30	12/21 22:30	298	8291,7	199000	70,2	25000	22500	104,5	0.0	1,41E+07	70,9
12/21 22:30	12/22 22:30	299	10375,0	249000	70,2	36000	32400	104,5	0.0	2,03E+07	81,7
12/22 22:30	12/23 22:30	300	10458,3	251000	70,5	36000	32400	104,6	0.0	2,03E+07	81,0
12/23 22:30	12/24 22:30	301	10375,0	249000	70,2	36000	32400	104,5	0.0	2,03E+07	81,7
12/24 22:30	12/25 22:30	302	10458,3	251000	70,2	36000	32400	104,5	0.0	2,03E+07	81,0
12/25 22:30	12/26 22:30	303	10375,0	249000	69,8	36000	32400	104,6	0.0	2,03E+07	81,7
12/26 22:30	12/27 22:30	304	10458,3	251000	69,8	36000	32400	104,5	0.0	2,03E+07	81,0
12/27 22:30	12/28 22:30	305	10375,0	249000	69,8	36000	32400	104,5	0.0	2,03E+07	81,7
12/28 22:30	12/29 22:30	306	10416,7	250000	69,8	36000	32400	104,5	0.0	2,03E+07	81,3
12/29 22:30	12/30 22:30	307	10458,3	251000	69,8	36000	32400	104,8	0.0	2,03E+07	81,0
12/30 22:30	12/31 22:30	308	10790,0	259000	70,2	36000	32400	104,8	0.0	2,03E+07	78,5

Final Report Annexe 10: Daily valuation of the energy multiple - NOVEMBER 2015											
		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water (Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
10/31 22:30	11/01 22:30	248	11125,0	267000	71.1	36000	32400	104,4	0.0	2,03E+07	76,1
11/01 22:30	11/02 22:30	249	11125,0	267000	71.1	36000	32400	104,4	0.0	2,03E+07	76,1
11/02 22:30	11/03 22:30	250	11041,7	265000	71.1	36000	32400	104,4	0.0	2,03E+07	76,7
11/03 22:30	11/04 22:30	251	11208,3	269000	71.1	36000	32400	104,4	0.0	2,03E+07	75,6
11/04 22:30	11/05 22:30	252	11208,3	269000	71.1	36000	32400	104,3	0.0	2,03E+07	75,6
11/05 22:30	11/06 22:30	253	11208,3	269000	71.1	36000	32400	104,1	0.0	2,03E+07	75,6
11/06 22:30	11/07 22:30	254	11125,0	267000	71.1	36000	32400	104,4	0.0	2,03E+07	76,1
11/07 22:30	11/08 22:30	255	10958,3	263000	71.1	36000	32400	104,4	0.0	2,03E+07	77,3
11/08 22:30	11/09 22:30	256	11000,0	264000	71.1	39000	35100	104,4	0.0	2,20E+07	83,4
11/09 22:30	11/10 22:30	257	10958,3	263000	71.1	36000	32400	104,4	0.0	2,03E+07	77,3
11/10 22:30	11/11 22:30	258	10958,3	263000	71.1	36000	32400	104,4	0.0	2,03E+07	77,3
11/11 22:30	11/12 22:30	259	10916,7	262000	71.1	36000	32400	104,4	0.0	2,03E+07	77,6
11/12 22:30	11/13 22:30	260	11166,7	268000	71.1	36000	32400	104,4	0.0	2,03E+07	75,9
11/13 22:30	11/14 22:30	261	11125,0	267000	71.1	36000	32400	103,7	0.0	2,03E+07	76,1
11/14 22:30	11/15 22:30	262	11333,3	272000	71.1	36000	32400	104,4	0.0	2,03E+07	74,7
11/15 22:30	11/16 22:30	263	11333,3	272000	71.1	36000	32400	104,1	0.0	2,03E+07	74,7
11/16 22:30	11/17 22:30	264	11375,0	273000	71.1	36000	32400	103,6	0.0	2,03E+07	74,5

Final Report Annexe 10: Daily valuation of the energy multiple - NOVEMBER 2015

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
11/17 22.30	11/18 22:30	265	11083,3	266000	71,1	36000	32400	103,6	0.0	2,03E+07	76,4
11/18 22.30	11/19 22:30	266	11404,2	273700	71,1	36000	32400	103,6	0.0	2,03E+07	74,3
11/19 22.30	11/20 22:30	267	11358,3	272600	71,1	36000	32400	103,7	0.0	2,03E+07	74,6
11/20 22.30	11/21 22:30	268	11266,7	270400	71,1	36000	32400	103,9	0.0	2,03E+07	75,2
11/21 22.30	11/22 22:30	269	11262,5	270300	71,1	36000	32400	103,6	0.0	2,03E+07	75,2
11/22 22.30	11/23 22:30	270	11333,3	272000	71,1	36000	32400	103,6	0.0	2,03E+07	74,7
11/23 22.30	11/24 22:30	271	11291,7	271000	71,1	36000	32400	103,5	0.0	2,03E+07	75,0
11/24 22.30	11/25 22:30	272	11291,7	271000	71,1	36000	32400	103,5	0.0	2,03E+07	75,0
11/25 22.30	11/26 22:30	273	11166,7	268000	71,4	36000	32400	103,7	0.0	2,03E+07	75,9
11/26 22.30	11/27 22:30	274	11083,3	266000	71,4	36000	32400	103,9	0.0	2,03E+07	76,4
11/27 22.30	11/28 22:30	275	11125,0	267000	71,1	36000	32400	103,9	0.0	2,03E+07	76,1
11/28 22.30	11/29 22:30	276	11083,3	266000	71,1	36000	32400	103,9	0.0	2,03E+07	76,4
11/29 22.30	11/30 22:30	277	11083,3	266000	71,1	36000	32400	104,5	0.0	2,03E+07	76,4

Final Report Annexe 9: Daily valuation of the energy multiple - OCTOBER 2015

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
09/30 22:30	10/01 22:30	217	7625,0	183000	70,7	27000	24300	103,5	0.0	1,52E+07	83,3
10/01 22:30	10/02 22:30	218	10333,3	248000	70,7	36000	32400	104,4	0.0	2,03E+07	82,0
10/02 22:30	10/03 22:30	219	11166,7	268000	71,1	36000	32400	104,4	0.0	2,03E+07	75,9
10/03 22:30	10/04 22:30	220	11000,0	264000	70,7	36000	32400	104,2	0.0	2,03E+07	77,0
10/04 22:30	10/05 22:30	221	11041,7	265000	71,1	36000	32400	104,4	0.0	2,03E+07	76,7
10/05 22:30	10/06 22:30	222	11250,0	270000	70,7	36000	32400	104,2	0.0	2,03E+07	75,3
10/06 22:30	10/07 22:30	223	11458,3	275000	70,3	36000	32400	104	0.0	2,03E+07	73,9
10/07 22:30	10/08 22:30	224	11458,3	275000	70	36000	32400	103,9	0.0	2,03E+07	73,9
10/08 22:30	10/09 22:30	225	11250,0	270000	70	36000	32400	103,9	0.0	2,03E+07	75,3
10/09 22:30	10/10 22:30	226	11250,0	270000	70	36000	32400	103,9	0.0	2,03E+07	75,3
10/10 22:30	10/11 22:30	227	11458,3	275000	70,3	36000	32400	103,9	0.0	2,03E+07	73,9
10/11 22:30	10/12 22:30	228	11500,0	276000	70	36000	32400	103,9	0.0	2,03E+07	73,7
10/12 22:30	10/13 22:30	229	11474,2	275380	70,3	36000	32400	104	0.0	2,03E+07	73,8
10/13 22:30	10/14 22:30	230	11470,8	275300	70	36000	32400	104,4	0.0	2,03E+07	73,9
10/14 22:30	10/15 22:30	231	11483,3	275600	70,3	36000	32400	104,4	0.0	2,03E+07	73,8
10/15 22:30	10/16 22:30	232	11493,8	275850	70,3	36000	32400	104,4	0.0	2,03E+07	73,7
10/16 22:30	10/17 22:30	233	11416,7	274000	70,3	36000	32400	104,3	0.0	2,03E+07	74,2

Final Report Annexe 9: Daily valuation of the energy multiple - OCTOBER 2015

		days of functioning	average power supply (wh/h)	supplied energy (wh/d)	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
10/17 22:30	10/18 22:30	234	11458,3	275000	70,3	36000	32400	104,4	0.0	2,03E+07	73,9
10/18 22:30	10/19 22:30	235	11208,3	269000	70,7	36000	32400	104,2	0.0	2,03E+07	75,6
10/19 22:30	10/20 22:30	236	11208,3	269000	70,3	36000	32400	104	0.0	2,03E+07	75,6
10/20 22:30	10/21 22:30	237	11333,3	272000	70,3	36000	32400	104	0.0	2,03E+07	74,7
10/21 22:30	10/22 22:30	238	11333,3	272000	70,3	36000	32400	104	0.0	2,03E+07	74,7
10/22 22:30	10/23 22:30	239	11375,0	273000	70,3	36000	32400	104,3	0.0	2,03E+07	74,5
10/23 22:30	10/24 22:30	240	11375,0	273000	70,3	36000	32400	104,3	0.0	2,03E+07	74,5
10/24 22:30	10/25 22:30	241	11375,0	273000	70,7	36000	32400	104,4	0.0	2,03E+07	74,5
10/25 22:30	10/26 22:30	242	11333,3	272000	70,7	36000	32400	103,9	0.0	2,03E+07	74,7
10/26 22:30	10/27 22:30	243	11250,0	270000	71,1	36000	32400	104	0.0	2,03E+07	75,3
10/27 22:30	10/28 22:30	244	11375,0	273000	71,1	36000	32400	104,3	0.0	2,03E+07	74,5
10/28 22:30	10/29 22:30	245	11291,7	271000	71,1	36000	32400	104,4	0.0	2,03E+07	75,0
10/29 22:30	10/30 22:30	246	11250,0	270000	71,1	36000	32400	104,2	0.0	2,03E+07	75,3
10/30 22:30	10/31 22:30	247	11375,0	273000	70,7	36000	32400	104,4	0.0	2,03E+07	74,5

Final Report Annexe 8: Daily valuation of the energy multiple - SEPTEMBER 2015											
		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
08/31 22:30	09/01 22:30	187	5583,3	134000	56,4	27000	24300	103,5	0.0	1,52E+07	113,8
09/01 22:30	09/02 22:30	188	5625,0	135000	58	27000	24300	103,5	0.0	1,52E+07	113,0
09/02 22:30	09/03 22:30	189	5583,3	134000	58	27000	24300	103,5	0.0	1,52E+07	113,8
09/03 22:30	09/04 22:30	190	5666,7	136000	58	27000	24300	103,8	0.0	1,52E+07	112,1
09/04 22:30	09/05 22:30	191	5625,0	135000	58	27000	24300	103,8	0.0	1,52E+07	113,0
09/05 22:30	09/06 22:30	192	5708,3	137000	58	27000	24300	103,8	0.0	1,52E+07	111,3
09/06 22:30	09/07 22:30	193	5708,3	137000	58	27000	24300	104,2	0.0	1,52E+07	111,3
09/07 22:30	09/08 22:30	194	5708,3	137000	58	27000	24300	104,2	0.0	1,52E+07	111,3
09/08 22:30	09/09 22:30	195	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/09 22:30	09/10 22:30	196	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/10 22:30	09/11 22:30	197	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/11 22:30	09/12 22:30	198	5583,3	134000	58	27000	24300	104,2	0.0	1,52E+07	113,8
09/12 22:30	09/13 22:30	199	5625,0	135000	58	28000	25200	104,2	0.0	1,58E+07	117,1
09/13 22:30	09/14 22:30	200	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/14 22:30	09/15 22:30	201	5583,3	134000	58	27000	24300	103,8	0.0	1,52E+07	113,8
09/15 22:30	09/16 22:30	202	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/16 22:30	09/17 22:30	203	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0

Final Report Annexe 8: Daily valuation of the energy multiple - SEPTEMBER 2015

		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
09/17 22:30	09/18 22:30	204	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/18 22:30	09/19 22:30	205	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/19 22:30	09/20 22:30	206	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/20 22:30	09/21 22:30	207	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/21 22:30	09/22 22:30	208	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/22 22:30	09/23 22:30	209	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/23 22:30	09/24 22:30	210	5583,3	134000	58	27000	24300	104,2	0.0	1,52E+07	113,8
09/24 22:30	09/25 22:30	211	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/25 22:30	09/26 22:30	212	5666,7	136000	58	27000	24300	104,2	0.0	1,52E+07	112,1
09/26 22:30	09/27 22:30	213	5625,0	135000	58	27000	24300	104,2	0.0	1,52E+07	113,0
09/27 22:30	09/28 22:30	214	6166,7	148000	58	28000	25200	104,2	0.0	1,58E+07	106,8
09/28 22:30	09/29 22:30	215	6104,2	146500	58	27000	24300	104,2	0.0	1,52E+07	104,1
09/29 22:30	09/30 22:30	216	5687,5	136500	58	27000	24300	104,2	0.0	1,52E+07	111,7

Final Report Annexe 7: Daily valuation of the energy multiple - AUGUST 2015

		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
07/31 22:30	08/01 22:30	156	6291,7	151000	76,8	36000	32400	103	0.0	2,03E+07	134,6
08/01 22:30	08/02 22:30	157	6208,3	149000	68,6	36000	32400	103,9	0.0	2,03E+07	136,4
08/02 22:30	08/03 22:30	158	6125,0	147000	68,6	27000	24300	103,5	0.0	1,52E+07	103,7
08/03 22:30	08/04 22:30	159	5750,0	138000	68,6	27000	24300	103,5	0.0	1,52E+07	110,5
08/04 22:30	08/05 22:30	160	6458,3	155000	69,1	27000	24300	103,9	0.0	1,52E+07	98,4
08/05 22:30	08/06 22:30	161	6291,7	151000	70,3	36000	32400	103,9	0.0	2,03E+07	134,6
08/06 22:30	08/07 22:30	162	6291,7	151000	70,3	36000	32400	103,9	0.0	2,03E+07	134,6
08/07 22:30	08/08 22:30	163	5958,3	143000	70,8	36000	32400	103,5	0.0	2,03E+07	142,2
08/08 22:30	08/09 22:30	164	5708,3	137000	70,3	27000	24300	103,5	0.0	1,52E+07	111,3
08/09 22:30	08/10 22:30	165	5875,0	141000	69,7	27000	24300	103,5	0.0	1,52E+07	108,1
08/10 22:30	08/11 22:30	166	6125,0	147000	70,3	27000	24300	103,5	0.0	1,52E+07	103,7
08/11 22:30	08/12 22:30	167	6166,7	148000	69,7	29000	26100	103,5	0.0	1,64E+07	110,7
08/12 22:30	08/13 22:30	168	6125,0	147000	69,1	29000	26100	103,9	0.0	1,64E+07	111,4
08/13 22:30	08/14 22:30	169	6125,0	147000	69,7	29000	26100	103,9	0.0	1,64E+07	111,4
08/14 22:30	08/15 22:30	170	6125,0	147000	69,7	29000	26100	103,9	0.0	1,64E+07	111,4
08/15 22:30	08/16 22:30	171	6083,3	146000	69,7	29000	26100	103,5	0.0	1,64E+07	112,2
08/16 22:30	08/17 22:30	172	6125,0	147000	69,7	29000	26100	103,5	0.0	1,64E+07	111,4

Final Report Annexe 7: Daily valuation of the energy multiple - AUGUST 2015

		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
08/17 22:30	08/18 22:30	173	5958,3	143000	69,7	29000	26100	103,5	0.0	1,64E+07	114,5
08/18 22:30	08/19 22:30	174	5666,7	136000	66,7	29000	26100	103,5	0.0	1,64E+07	120,4
08/19 22:30	08/20 22:30	175	5625,0	135000	65,9	29000	26100	103	0.0	1,64E+07	121,3
08/20 22:30	08/21 22:30	176	5625,0	135000	62	29000	26100	103,9	0.0	1,64E+07	121,3
08/21 22:30	08/22 22:30	177	5666,7	136000	60,9	27000	24300	103,9	0.0	1,52E+07	112,1
08/22 22:30	08/23 22:30	178	5708,3	137000	65,9	27000	24300	103,9	0.0	1,52E+07	111,3
08/23 22:30	08/24 22:30	179	5666,7	136000	65,9	27000	24300	103,9	0.0	1,52E+07	112,1
08/24 22:30	08/25 22:30	180	5666,7	136000	60,9	27000	24300	103,5	0.0	1,52E+07	112,1
08/25 22:30	08/26 22:30	181	5625,0	135000	60,2	27000	24300	103,5	0.0	1,52E+07	113,0
08/26 22:30	08/27 22:30	182	5625,0	135000	59,8	27000	24300	103,9	0.0	1,52E+07	113,0
08/27 22:30	08/28 22:30	183	5583,3	134000	59,0	27000	24300	103,9	0.0	1,52E+07	113,8
08/28 22:30	08/29 22:30	184	5583,3	134000	56,8	27000	24300	103,5	0.0	1,52E+07	113,8
08/29 22:30	08/30 22:30	185	5625,0	135000	62,8	27000	24300	103,5	0.0	1,52E+07	113,0
08/30 22:30	08/31 22:30	186	5625,0	135000	58,5	27000	24300	103,9	0.0	1,52E+07	113,0

Final Report Annexe 6: Daily valuation of the energy multiple - JULY 2015

		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
06/30 22:30	07/01 22:30	126	8500,0	204000	75,3	36000	32400	103,9	0.0	2,03E+07	99,7
07/01 22:30	07/02 22:30	127	8541,7	205000	69,1	36000	32400	103,9	0.0	2,03E+07	99,2
07/02 22:30	07/03 22:30	128	8583,3	206000	71,4	36000	32400	103,9	0.0	2,03E+07	98,7
07/03 22:30	07/04 22:30	129	8458,3	203000	73,7	36000	32400	103,9	0.0	2,03E+07	100,2
07/04 22:30	07/05 22:30	130	8333,3	200000	75,3	36000	32400	104,4	0.0	2,03E+07	101,7
07/05 22:30	07/06 22:30	131	8500,0	204000	70,3	36000	32400	103,3	0.0	2,03E+07	99,7
07/06 22:30	07/07 22:30	132	8416,7	202000	70,3	36000	32400	103,3	0.0	2,03E+07	100,6
07/07 22:30	07/08 22:30	133	8416,7	202000	70,3	36000	32400	102,8	0.0	2,03E+07	100,6
07/08 22:30	07/09 22:30	134	8500,0	204000	70,3	36000	32400	103,9	0.0	2,03E+07	99,7
07/09 22:30	07/10 22:30	135	8500,0	204000	73,1	36000	32400	103,9	0.0	2,03E+07	99,7
07/10 22:30	07/11 22:30	136	8333,3	200000	75,3	36000	32400	103,9	0.0	2,03E+07	101,7
07/11 22:30	07/12 22:30	137	8458,3	203000	71,4	36000	32400	104,4	0.0	2,03E+07	100,2
07/12 22:30	07/13 22:30	138	8458,3	203000	70,8	32000	28800	104,3	0.0	1,81E+07	89,0
07/13 22:30	07/14 22:30	139	8500,0	204000	75,3	36000	32400	103,9	0.0	2,03E+07	99,7
07/14 22:30	07/15 22:30	140	8708,3	209000	75,3	36000	32400	103,9	0.0	2,03E+07	97,3
07/15 22:30	07/16 22:30	141	8666,7	208000	70,3	36000	32400	103,5	0.0	2,03E+07	97,7
07/16 22:30	07/17 22:30	142	8708,3	209000	67,43	36000	32400	103,5	0.0	2,03E+07	97,3

Final Report Annexe 6: Daily valuation of the energy multiple - JULY 2015

		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
07/17 22:30	07/18 22:30	143	8708,3	209000	69,7	36000	32400	103,9	0.0	2,03E+07	97,3
07/18 22:30	07/19 22:30	144	8708,3	209000	75,3	36000	32400	103,5	0.0	2,03E+07	97,3
07/19 22:30	07/20 22:30	145	8666,7	208000	73,7	36000	32400	103,9	0.0	2,03E+07	97,7
07/20 22:30	07/21 22:30	146	8625,0	207000	69,7	36000	32400	103,9	0.0	2,03E+07	98,2
07/21 22:30	07/22 22:30	147	8625,0	207000	81,5	36000	32400	103,9	0.0	2,03E+07	98,2
07/22 22:30	07/23 22:30	148	8541,7	205000	78,4	36000	32400	103,5	0.0	2,03E+07	99,2
07/23 22:30	07/24 22:30	149	8583,3	206000	78,4	36000	32400	103,9	0.0	2,03E+07	98,7
07/24 22:30	07/25 22:30	150	8500,0	204000	76,8	36000	32400	103,9	0.0	2,03E+07	99,7
07/25 22:30	07/26 22:30	151	8500,0	204000	78,4	36000	32400	103,5	0.0	2,03E+07	99,7
07/26 22:30	07/27 22:30	152	9125,0	219000	78,4	36000	32400	103,5	0.0	2,03E+07	92,8
07/27 22:30	07/28 22:30	-	6083,3	146000	81,5	36000	32400	103,9	0.0	2,03E+07	139,3
07/28 22:30	07/29 22:30	153	6458,3	155000	75,3	31000	27900	103,5	0.0	1,75E+07	113,0
07/29 22:30	07/30 22:30	154	5958,3	143000	83,1	27000	24300	103,5	0.0	1,52E+07	106,6
07/30 22:30	07/31 22:30	155	6375,0	153000	80	36000	32400	103,9	0.0	2,03E+07	132,9

Final Report Annexe 5: Daily valuation of the energy multiple - JUNE 2015											
		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
05/31 22:30	06/01 22:30	97	7791,7	187000	69,1	22000	19800	104,5	0.0	1,24E+07	66,4
06/01 22:30	06/02 22:30	98	9208,3	221000	71,4	27000	24300	104,5	0.0	1,52E+07	69,0
06/02 22:30	06/03 22:30	99	8458,3	203000	69,7	26000	23400	104,5	0.0	1,47E+07	72,3
06/03 22:30	06/04 22:30	100	6750,0	162000	71,4	27000	24300	104,5	0.0	1,52E+07	94,1
06/04 22:30	06/05 22:30	101	7750,0	186000	70,3	27000	24300	103,9	0.0	1,52E+07	82,0
06/05 22:30	06/06 22:30	102	9750,0	234000	70,3	36000	32400	104,5	0.0	2,03E+07	86,9
06/06 22:30	06/07 22:30	103	8916,7	214000	70,3	36000	32400	104,5	0.0	2,03E+07	95,0
06/07 22:30	06/08 22:30	-	8125,0	195000	70,8	36000	32400	103,4	0.0	2,03E+07	104,3
06/08 22:30	06/09 22:30	104	8000,0	192000	70,3	27000	24300	103,4	0.0	1,52E+07	79,4
06/09 22:30	06/10 22:30	105	7958,3	191000	70,3	18000	16200	103,9	0.0	1,02E+07	53,2
06/10 22:30	06/11 22:30	106	8083,3	194000	69,1	36000	32400	103,4	0.0	2,03E+07	104,8
06/11 22:30	06/12 22:30	107	8375,0	201000	70,3	27000	24300	103,9	0.0	1,52E+07	75,9
06/12 22:30	06/13 22:30	108	8875,0	213000	69,7	27000	24300	104,5	0.0	1,52E+07	71,6
06/13 22:30	06/14 22:30	109	8208,3	197000	71,4	27000	24300	103,9	0.0	1,52E+07	77,4
06/14 22:30	06/15 22:30	110	8541,7	205000	69,7	33000	29700	103,9	0.0	1,86E+07	90,9
06/15 22:30	06/16 22:30	111	8458,3	203000	70,3	36000	32400	103,9	0.0	2,03E+07	100,2
06/16 22:30	06/17 22:30	112	8416,7	202000	70,3	36000	32400	103,9	0.0	2,03E+07	100,6

Final Report Annexe 5: Daily valuation of the energy multiple - JUNE 2015											
		days of functioning	average power supply (wh/h)	supplied energy wh/d	tank water T max (°C)	effective flowed water(Kg/d)	reduced flowed water (kg/d)	steam T min (°C)	steam pressure (bar)	produced energy (wh/d)	COP
06/17 22:30	06/18 22:30	113	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/18 22:30	06/19 22:30	114	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/19 22:30	06/20 22:30	115	8416,7	202000	68,6	36000	32400	103,9	0.0	2,03E+07	100,6
06/20 22:30	06/21 22:30	116	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/21 22:30	06/22 22:30	117	8375,0	201000	68,5	34000	30600	103,9	0.0	1,92E+07	95,5
06/22 22:30	06/23 22:30	118	8416,7	202000	69,1	36000	32400	103,9	0.0	2,03E+07	100,6
06/23 22:30	06/24 22:30	119	8500,0	204000	69,1	36000	32400	103,9	0.0	2,03E+07	99,7
06/24 22:30	06/25 22:30	120	8458,3	203000	69,2	36000	32400	104,5	0.0	2,03E+07	100,2
06/25 22:30	06/26 22:30	121	8500,0	204000	69,7	36000	32400	104,5	0.0	2,03E+07	99,7
06/26 22:30	06/27 22:30	122	8583,3	206000	70,2	26000	23400	104,5	0.0	1,47E+07	71,3
06/27 22:30	06/28 22:30	123	8750,0	210000	70,8	36000	32400	104,5	0.0	2,03E+07	96,8
06/28 22:30	06/29 22:30	124	8750,0	210000	68,5	36000	32400	104,5	0.0	2,03E+07	96,8
06/29 22:30	06/30 22:30	125	8541,7	205000	69,1	36000	32400	103,9	0.0	2,03E+07	99,2

From: JT Vaughn <jvaughn@industrialheat.co>
Sent: Tuesday, March 17, 2015 8:12 AM
To: Andrea Rossi
Cc: Tom Darden; John Mazzarino; Joe Pike; Daniel Pike; T Barker Dameron
Subject: Re: Paper Cook Rossi

Thanks, Andrea. Look forward to reading.

Best,
JT

On Mon, Mar 16, 2015 at 9:17 PM, Andrea Rossi <ar.123@mail.com> wrote:
Sorry, I discovered right now, for a last reading before the go, that there is a typo: at pag. 5,6,7 is repeatedly written $^{15}\text{Ni}^8$ instead of $^{15}\text{N}^8$
(the atom with 15 nucleons and 8 neutrons is Nitrogen, not Nickel). A typo due also to the fact that I write during the night...
Warmest Regards,
Andrea

Dear All:
Please find attached the final version, peer reviewed, of the paper Cook Rossi.
As you can see, I have changed, per your request, my reference into "Leonardo Corp" instead of "Industroial Heat".
The text has been corrected. It will be published on Journal of Physics (so prof. Cook told me).
You can use this paper with your investors, provided under NDA until it will be published.
Warmest Regards,
Andrea, obviously from inside the plant, that is going well as usual.
Let's pray God it continues like this.

--
JT Vaughn
Industrial Heat
jvaughn@industrialheat.co

THIS ELECTRONIC TRANSMISSION IS DIRECTED TO ITS INTENDED RECIPIENT ONLY AND MAY CONTAIN INFORMATION THAT IS PROPRIETARY AND CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any use, disclosure, distribution or copying of this communication or any attachment is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it, and notify the sender immediately by reply e-mail or by calling 919.743.5724. Thank you.

From: tfdarden@yahoo.com
Sent: Monday, February 09, 2015 12:00 AM
To: Daniel Pike
Subject: Re: Theoretical paper

I've just read the presentation and the abstract and they appear to be safe; our IP attys and we will be reading the paper tomorrow. Thanks.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Daniel Pike
Sent: Sunday, February 8, 2015 11:36 PM
To: tfdarden@yahoo.com
Subject: Re: Theoretical paper

Roger. Let me know when. I think this will be a helpful one to send along when u think it's ok.

Sent from my iPhone

On Feb 9, 2015, at 9:36 AM, tfdarden@yahoo.com wrote:

Pls hold off until we get a chance to digest it. Thanks for asking! We go to see the plant with WIF person, Paul Lamacraft, Tuesday.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Daniel Pike
Sent: Sunday, February 8, 2015 8:30 PM
To: Thomas F. Darden II
Subject: Re: Theoretical paper

Tom,
Can I send this to Mia to forward to her contacts here, or would you like me to hold off?

Sent from my iPhone

On Feb 9, 2015, at 7:40 AM, Andrea Rossi <ar.123@mail.com> wrote:

Dear All:
Please find attached in three blocks the theoretical paper that I am going to publish with Prof. Norman Cook.
Since I think this paper can be very useful for your Investors, I referenced to myself as Industrial heat chief scientist.
This is a strictly theoretical work, nothing technological is in it, but for safety I have made of all of it a provisional patent.
Norman Cook is considered one of the most prominent scientists in nuclear science in the world.
Warmest Regards,
Andrea

<COOK-ROSSI(30Jan2015) FEBRUARY 1 2015.doc>

<CookRossi(4Feb2015).pdf>

<COOK ROSSI DRAFT ICCF.doc>

From: Tom Darden <tdarden@industrialheat.co>
Sent: Friday, April 10, 2015 9:16 AM
To: Andrea Rossi
Subject: Re: "张健重庆"和"Mia Xie"的聊天记录

This is very exciting to think about. Now about 1.5 billion more people can read your paper. What a great world it is!

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Andrea Rossi
Sent: Friday, April 10, 2015 7:57 AM
To: Daniel Pike; Joe Pike; Tom Darden; JT Vaughn; John Mazzarino
Subject: Re: Fwd: "张健重庆"和"Mia Xie"的聊天记录

Fantastic!
Tell to your Chinese Friends that I am honoured of this!
Warmest Regards,
Andrea

Sent: Friday, April 10, 2015 at 10:14 AM
From: "Daniel Pike" <daniel@pike.co>
To: "Thomas F. Darden II" <tfdarden@yahoo.com>, "Andrea Rossi" <ar.123@mail.com>, "JT Vaughn" <jvaughn@industrialheat.co>
Subject: Fwd: "张健重庆"和"Mia Xie"的聊天记录

For your records. The Rossi cook paper translated into Chinese.

Sent from my iPhone

Begin forwarded message:

From: "博雅" <110242002@qq.com>
Date: April 10, 2015 at 4:03:00 PM GMT+8
To: "Daniel" <daniel@danielpike.com>, "xieboya" <xieboya@gmail.com>
Subject: "张健重庆"和"Mia Xie"的聊天记录

Dear:

"张健重庆"和"Mia Xie"的聊天记录如下:

2015-4-10

张健重庆 15:59
用核机理解释E-CAT放热反应翻译.doc (可在附件中查看)

From: Andrea Rossi <ar.123@mail.com>
Sent: Wednesday, July 30, 2014 7:30 PM
To: JT Vaughn
Subject: Fw: Fwd: Re: Andrea Rossi

Sent: Wednesday, July 30, 2014 at 10:30 PM
From: "Andrea Rossi" <ar.123@mail.com>
To: tdarden@industrialheat.com
Subject: Fwd: Re: Andrea Rossi

Sent using the free mail.com iPhone App

Forwarded email

> From: "Andrea Rossi" <ar.123@mail.com>
> Date: July 30, 2014 at 4:29 PM
> To: "Andrea Rossi" <ar.123@mail.com>
> Subject: Re: Andrea Rossi
>
> Correction:
>
> the fact that my attorney is also their ceo is a guarantee for us
>
>
>
> Sent using the free mail.com iPhone App
>
>
>
> On 7/30/14 at 4:25 PM, Andrea Rossi wrote:
>
>
>
> > Dear Tom
>
> >
>
> > The Customer is JMC Chemicals which is a new company as IH was. There are no laws in the USA that forbid to
a new company to make a contract like that.
>
> >
>
> > The fact that their attorney is also their CEO is also a good thing for us.
>
> >
> > It has been a proposal of me.
>
> >
>
> > It will not be a problem to propose a change before to make public the Customer if necessary.
>
> >

>
> > Andrea
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> > Sent using the free mail.com iPhone App
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> > On 7/30/14 at 3:30 PM, Tom Darden wrote:
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> > > Great, we will see you then. We are doing some legal analysis--there may be some legal requirements under new US laws that will force us to know more details about our customer, so we may need some more disclosure. We are studying this and should know by next week. We were surprised to see your lawyer in the role of customer, instead of someone from JM, so this has required some added analysis. But we are moving to figure it out.
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> > > From: Andrea Rossi
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> > > Sent: Wednesday, July 30, 2014 2:00 PM
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> > > To: Tom Darden; JT Vaughn
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> > > Subject: Andrea Rossi
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> > > Dear Tom, JT:
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> > > Next Tuesday I will be in Raleigh in the factory.
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>
> > > It is not necessary for you to email the agreement with JMC, just sign it in the version corrected by your attorney and I will sign it too on Tuesday, then I will bring the originals to Johnson on Wednesday and will mail it to you signed by him the same day by fast mail.
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> > > I talked this morning with London: if the plant will go well for 3-4 month they will make the outing.
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> > > If opportuine and necessary for us.
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> > > God bless you,
>
> >
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> > >
>
> >
>
> > > Andrea

From: Tom Darden <tdarden@industrialheat.co>
Sent: Monday, March 23, 2015 12:31 PM
To: Joe Pike
Cc: Daniel Pike
Subject: Re: Introduction

My comments are just nuances. We definitely are producing steam for a customer. My lack of clarity is just around 1) precisely how much--we cannot definitively represent this yet; and 2) what is the nature of the customer. But these are picky nuances, not related to the core issue.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Joe Pike
Sent: Monday, March 23, 2015 10:03 AM
To: Tom Darden
Cc: Daniel Pike
Subject: Re: Introduction

I assume you are saying you don't want to call this a commercial system putting out one megawatt. That being said, I think it would be a big mistake to start equivocating about this not being a commercial beta site producing 1 mega watt of energy when the Chinese guy comes this week. Let's discuss this with Daniel. I think we stand to do much more damage if we start inferring doubt that we are producing power for a customer.

*Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PH: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500*

e-mail: jpik@evofem.com

From: Tom Darden <tdarden@industrialheat.co>
Date: Monday, March 23, 2015 at 9:54 AM
To: Joe Pike <jpik@evofem.com>
Subject: Re: Introduction

I think it was fine. I'm torn about calling it a commercial customer (or about representing the output at this time--we only have Rossi's word so far). But broadly thought was good.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Joe Pike
Sent: Monday, March 23, 2015 9:50 AM
To: Tom Darden
Subject: Re: Introduction

Tom,

I hope what I sent was ok. I had asked you how to mention the system in Florida, and you said to call it a Beta site.

Joseph D. Pike CEO
EvoMed Holdings LLC
8910 University Center Lane
Suite 120
San Diego, CA 92122
PH: 858-550-1900 ext 103 | FX: 858-550-0119
Mobile: 858-705-2500

e-mail: jpike@evofem.com

From: Tom Darden <tdarden@industrialheat.co>
Date: Monday, March 23, 2015 at 1:16 AM
To: "Hong, Yoomin" <yoomin.hong@gs.com>
Cc: Joe Pike <jpike@evofem.com>, "Montazeri, Q" <q.montazeri@gs.com>, "Buddin, Chris" <chris.buddin@gs.com>
Subject: Re: Introduction

Hi, Yoomin, I actually am in SF for YPO/WPO meetings this week. Unfortunately I am pretty booked up. I will try to give you a call to discuss this. Do you have any preferred times on Monday, Tuesday or Wednesday? Thanks.

On Monday, March 16, 2015, Hong, Yoomin <yoomin.hong@gs.com> wrote:

Q – thanks again for the introduction.

Joe – it's great to meet you via email, and thank you for sharing the latest developments at Industrial Heat and the report. What you and your team have accomplished to date including the performance of the E-CAT reactor is truly impressive.

We would love to learn more about the technology and stayed tuned for ongoing progress at IH. We would be glad to set up an introductory call or meeting when appropriate. Please advise when would be good for your team.

Best regards,

Yoomin

Goldman, Sachs & Co.
555 California Street | San Francisco, CA 94104
Tel: 415-249-7007 | Fax: 415-249-7400
Email: yoomin.hong@gs.com

Yoomin Hong

Vice President

Investment Banking Division

From: Joe Pike [mailto:jpik@evofem.com]
Sent: Saturday, March 14, 2015 12:39 AM
To: Montazeri, Q [IBD]; Buddin, Chris [IBD]; Hong, Yoomin [IBD]
Cc: Tom Darden
Subject: Introduction

Thanks for the introduction. I enjoyed meeting you and Chuck last week at Evofem.

Chris and Yoomin, we spoke with someone at Goldman—it was just an introductory conversation—about a year ago after my business partner, Tom Darden, and I created a company, Industrial Heat, through which we acquired the rights to the LENR (*Low Energy Nuclear Reaction*) technology of Italian physicist Andrea Rossi. Subsequently, the Swedish Royal Academy of Science sponsored a study of one of the reactors we built in our facility in Raleigh, North Carolina. The study was conducted by six independent physicists, including four who are from the university department that awards the Nobel Prize for Physics.

The professors ran the reactor for 32 days. It was charged with one gram of fuel, and over the 32 day period, it operated at between 1260 and 1400 degrees Celsius, producing 1.5 MWh of net energy.

On October 8th, the Royal Academy released the report on Sofferkoll, a Scandinavian web site:

<http://www.sifferkoll.se/sifferkoll/wp-content/uploads/2014/10/LuganoReportSubmit.pdf>

While the report is very technical, page 30 is the summary page where it says the results were unequivocal and these results could not have happened without a nuclear reaction within the cylinder.

Since then we have installed our first Beta commercial device which is producing 1 megawatt of power for a customer in Florida.

We are fully capitalized, and will need no additional investors until we decide to float the company's shares sometime in the future. However, at some point in the near future we will begin working to identify and establish an investment banking relationship to engage Global 500 companies interested in partnering with IH to license and further develop its technology.

As things proceed, we would be pleased to share further information about our progress should you be interested.

Sincerely,

Joseph D. Pike CEO

EvoMed Holdings LLC

3910 University Center Lane

Suite 120

San Diego, CA 92122

PE: 858-550-1900 ext 103 | FX: 858-550-0119

Mobile: 858-705-2500

e-mail: jpik@evofem.com

From: <Montazeri, Q <q.montazeri@gs.com>

Date: Tuesday, March 10, 2015 at 3:17 PM

To: Joe Pike <jpik@evofem.com>, "Buddin, Chris" <chris.buddin@gs.com>, "Hong, Yoomin" <yoomin.hong@gs.com>

Subject: Introduction

Joe, Chris and Yoomin:

Please allow me to introduce by way of email.

Joe, please meet my colleagues Chris Buddin and Yoomin Hong. Chris and Yoomin are investment bankers from the Goldman Sachs Clean Technology & Renewables group and are located in San Francisco.

Chris and Yoomin, as discussed, Joe is a lead investor in Industrial Heat.

I trust you will take it from here and arrange a meeting.

All the best,

Q.

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