Nos. 18-4119, 18-4150

IN THE UNITED STATES COURT OF APPEALS
FOR THE TENTH CIRCUIT

UNITED STATES OF AMERICA,

Plaintiff-Appellee

v.

RAPOWER-3, LLC; INTERNATIONAL AUTOMATED SYSTEMS, INC.; LTB1, LLC; R. GREGORY SHEPARD; NELDON P. JOHNSON,

Defendants-Appellants

ON APPEAL FROM THE JUDGMENT AND ORDERS OF THE
U.S. DISTRICT COURT FOR THE DISTRICT OF UTAH
No. 2:15-cv-00828-DN-EJF
JUDGE DAVID NUFFER

SUPPLEMENTAL APPENDIX

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IN THE UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON, and ROGER FREEBORN, Defendants.	Civil No. 2:15-cv-00828 DN EJF **ORDER GRANTING UNITED STATES' EXPEDITED MOTION TO COMPEL DEFENDANTS NELDON JOHNSON, INTERNATIONAL AUTOMATED SYSTEMS, INC., RAPOWER-3, LLC, AND/OR LTB1, LLC TO PRODUCE DOCUMENTS** Judge David Nuffer Magistrate Judge Evelyn J. Furse

In its expedited motion to compel Defendants Neldon Johnson, International Automated Systems, Inc., RaPower-3, LLC, and LTB1, LLC ("Defendants") to produce certain documents, the United States seeks five categories of documents:

1. The computer program, or data extracted from it, that (among other things) purportedly tracks solar lens customer names and sales, serial numbers of lenses, and the location of any customer's lens;

2. All RaPower-3 solar lens purchase agreements with customers since 2010;

3. The solar lens purchase contract between SOLCO I and a "company back East" with a down-payment of $1 million;[1]

4. The list of IAS shareholders; and

5. Any letter or purported documentation that supports Mr. Johnson's belief that the IRS "exonerated" him by giving him any tax credit.[2]

The documents in categories 1 through 5 were timely requested in the United States' requests for the production of documents to the defendants. IT IS HEREBY ORDERED THAT the United States' motion is GRANTED as follows:

Defendants shall produce the documents in categories 1 through 3 no later than September 28, 2017.

With respect to categories 4 and 5, I find that these documents are within Defendants' possession, custody, and control, even if they are currently held by third parties. Defendants shall produce the documents in categories 4 and 5 no later than September 15, 2017.

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[1] I find that Neldon Johnson has possession, custody, or control of this requested contract based on his deposition testimony submitted with the United States' motion. *Ice Corp. v. Hamilton Sundstrand Corp.*, 245 F.R.D. 513, 517 (D. Kan. 2007); *Resolution Trust Corp. v. Deloitte & Touche*, 145 F.R.D. 108, 110 (D. Colo. 1992). Johnson testified that he is the manager for SOLCO I and makes all decisions on behalf of the company.

[2] ECF Doc. No. 210.

If any of the documents in categories 1 through 5 do not exist after a diligent search, Defendants shall so state that under penalty of perjury on or before the date that the documents are due for production. If Defendants do not have the right to require a third-party to produce the documents in category 4, they shall state that under penalty of perjury on or before September 15, 2017.

IT IS SO ORDERED.

DATED this 12th day of September, 2017.

Evelyn J. Furse
United States Magistrate Judge

IN THE UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON, and ROGER FREEBORN, Defendants.	**ORDER GRANTING UNITED STATES' EXPEDITED MOTION FOR SANCTIONS AGAINST NELDON JOHNSON, INTERNATIONAL AUTOMATED SYSTEMS, INC., RAPOWER-3, LLC, AND/OR LTB1, LLC** Civil No. 2:15-cv-00828-DN-EJF Judge David Nuffer Magistrate Judge Evelyn J. Furse

Upon consideration of the United States' expedited motion for sanctions against Neldon Johnson, International Automated Systems, Inc., RaPower-3, LLC, and/or LTB1, LLC (ECF No. 226), the Court GRANTS the motion as follows:

1. Neldon Johnson, International Automated Systems, Inc., RaPower-3, LLC, and LTB1, LLC (collectively, "Defendants") failed to comply with the Court's September 13, 2017 Order (ECF No. 218) by failing to produce:

    a. The computer program, or data extracted from it, that (among other things) purportedly tracks solar lens customer names and sales, serial numbers of lenses, and the location of any customer's lens;

    b. All RaPower-3 solar lens purchase agreements with customers since 2010;

    c. The solar lens purchase contract between SOLCO I and a "company back East" with a down-payment of $1 million.

2. After briefing and oral argument, the Court finds the following sanctions necessary to ensure compliance with the Order given Defendants' continued obstruction of discovery. Defendants' arguments about proportionality are too little, too late.
3. No later than five (5) business days from the date of this Order, counsel for Defendants shall meet and confer with counsel for the United States to plan for a visit from counsel for the United States and a computer forensic expert.
    a. Counsel for Defendants shall report to counsel for the United States:
        i. The location of the documents and information identified in ¶ 1;
        ii. The approximate size of the database(s) identified in ¶ 1(a);
        iii. Whether any data has been deleted from or altered in the database(s) identified in ¶ 1(a) since November 22, 2015;
        iv. The quantity of electronic information or paper, or both, of the documents identified in ¶¶ 1(b) and 1(c); and
        v. The name of a person who is knowledgeable about the computer program and database(s) identified in ¶ 1(a) and the documents identified in ¶¶ 1(b) and (c).
4. Counsel for the United States and a forensic computer expert of its choosing shall enter onto Defendants' property on a date and time agreed upon by the parties to review and/or copy the documents identified in ¶ 1.
5. Counsel for the United States and counsel for Defendants shall participate in good faith in planning for the visit identified in ¶ 4.

6. Defendants shall make the documents and information identified in ¶ 1 available to counsel for the United States and the forensic computer expert on the date and time agreed to.

7. Defendant shall also make the knowledgeable person identified in ¶ 3(a)(v) available to assist counsel for the United States and the forensic computer expert in copying the computer program(s) and database(s), in running reports to extract data from the database(s), and in locating and copying the other documents on the date and time agreed to.

8. Counsel for the United States may bring a non-lawyer to assist in obtaining the documents identified in ¶¶ 1(b) and 1(c). If the original documents cannot be copied on-site on the day of the visit, counsel for the United States may remove the uncopied original documents from Defendants' premises, copy or image the original documents off-site, and return the original documents to Defendants within seven (7) days.

9. Counsel for the United States may bring a videographer to record the proceedings during the visit identified in ¶ 4 to document Defendants' compliance with this Order.

10. The forensic expert, videographer, and non-lawyer referenced in ¶ 8 (if used) shall review the Protective Order entered in this case (ECF No. 116) and sign a disclosure indicating that they have reviewed the Protective Order and agree to abide by the terms.

11. The Court awards the United States its fees and costs in bringing this motion for sanctions (ECF No. 226) and for further enforcing this Court's Order.

a. Defendants shall pay reasonable costs for the visit identified in ¶ 4, including the travel costs for one attorney for the United States and the fees for the forensic computer expert, the videographer, and copying or imaging the hard copy documents.

b. No later than thirty (30) days after the visit identified in ¶ 4, the United States shall provide Defendants with a cost and fee memorandum detailing the reasonable fees and costs it has incurred in enforcing the Court's Order to Compel, including bringing the motion, making the visit, and copying the documents.

c. The parties shall agree to costs and fees within thirty (30) days after provision of the memorandum.

12. The Court hereby **warns** Defendants that **continued failure to obey this Court's orders puts them in jeopardy of** being held in contempt of court and **orders** imposing other sanctions including **striking all or part of their Answer** (ECF No. 22) **and rendering a default judgment against them**. See Fed. R. Civ. P. (b)(2)(A)(iii), (vi).

13. Within five (5) business days of the date of this order, counsel for Defendants shall deliver a hard copy of this order to each Defendant and certify to the Court that they have done so.

DATED: October 25, 2017.

Evelyn J. Furse
United States Magistrate Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON, and ROGER FREEBORN, Defendants.	**MEMORANDUM DECISION AND ORDER OVERRULING OBJECTION TO THE MAGISTRATE JUDGE'S ORDER** Case No. 2:15-cv-00828 DN-EJF District Judge David Nuffer Magistrate Judge Evelyn J. Furse

Defendants Neldon Johnson's, International Automated Systems, Inc.'s, RaPower-3, LLC's, and LTB1, LLC's (collectively, "Defendants") Objection[1] to Magistrate Judge Furse's Order Granting the United States' Expedited Motion for Sanctions ("October 25 Order")[2] is resolved in this order. For the reasons that follow, the Objection is overruled and the October 25 Order is affirmed.

I. Background for Defendants' Objection

On August 17, 2017, the United States filed a motion to compel Defendants to produce five categories of documents and information.[3] Defendants did not file a brief in opposition to

[1] Defendant's Objection to Order Granting United States' Expedited Motion for Sanctions and Request for Expedited Treatment ("Objection"), docket no. 238, filed November 1, 2017.

[2] Docket no. 235, filed October 25, 2017.

[3] United States' Expedited Motion to Compel [Defendants] to Produce Documents ("Motion to Compel"), docket no. 210, filed August 17, 2017.

the Motion to Compel.[4] At a hearing on August 31, 2017, Magistrate Judge Furse granted the Motion to Compel and ordered Defendants to produce all documents and information by September 28, 2017.[5] Defendants produced (or explained the non-existence of) two categories of documents.[6] But they did not produce three categories of documents and information by the September 28 deadline:

- The computer program, or data extracted from it, that (among other things) purportedly tracks solar lens customer names and sales, serial numbers of lenses, and the location of any customer's lens;
- All RaPower-3 solar lens purchase agreements with customers since 2010; and
- The solar lens purchase contract between SOLCO I and a "company back East" with a down-payment of $1 million.[7]

On October 11, 2017, the United States filed the Motion for Sanctions under Fed. R. Civ. P. 37(b)(2)(A) and (C) against Defendants for their failure to produce. The relief the United States sought included an order 1) requiring Defendants to allow the United States and its contractors to enter onto their property to obtain copies of the information and documents Defendants were ordered to produce; 2) requiring Defendants to pay the United States' costs for enforcing this Court's order; and 3) warning Defendants of possible future sanctions including contempt of court and terminating sanctions.[8] Defendants opposed the Motion for Sanctions,

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[4] *See generally* Docket.

[5] Minute Entry for proceedings held before Magistrate Judge Evelyn J. Furse, docket no. 217, entered August 29, 2017. The Magistrate Judge's full order, Order Granting United States' Expedited Motion to Compel Defendants to Produce Documents, was entered on the docket no, 218, filed September 13, 2017.

[6] Motion for Sanctions and Memorandum in Support ("Motion for Sanctions"), docket no. 226, at 2 n.1, filed October 11, 2017.

[7] October 25 Order, at ¶ 1.

[8] Motion for Sanctions at 2.

arguing that they had: 1) satisfied the first category by "producing a 190-page document containing the names of all lens purchasers and the serial number of each lens," and 2) did not produce the remaining two categories of documents because they were disproportionate to the needs of the case and not relevant.[9]

After a hearing, Magistrate Judge Furse granted the United States' Motion for Sanctions, finding that sanctions were "necessary to ensure compliance with [her order on the motion to compel] given Defendants' continued obstruction of discovery."[10] The October 25 Order requires Defendants to produce the three categories of documents and information identified above under specific conditions which include: a required meet-and-confer between counsel for the United States and counsel for Defendants regarding the database at issue in the first category and the quantity of paper (if any) in the second category; counsel for the United States may enter onto Defendants' property to obtain a copy of the documents ordered to be produced, along with vendors to support collection; Defendants shall make a "knowledgeable person" available to assist counsel for the United States and a vendor to understand and navigate the database; and the United States may "bring a videographer to record the proceedings during the visit . . . to document Defendants' compliance with this Order."[11] The October 25 Order also required Defendants to pay the United States' fees and costs in enforcing the September 13 order compelling Defendants to produce.[12] The Magistrate Judge also warned Defendants that "**continued failure to obey this Court's orders puts them in jeopardy of** being held in

[9] Defendants' Response to Plaintiff's Motion for Sanctions, docket no. 231, at 2-4, filed October 20, 2017.

[10] October 25 Order at ¶ 2.

[11] October 25 Order at ¶¶ 3-10.

[12] October 25 Order at ¶ 11.

contempt of court and **orders** imposing other sanctions including **striking all or part of their Answer and rendering a default judgment against them**. See Fed. R. Civ. P. (b)(2)(A)(iii), (vi)."[13]

Defendants objected to Magistrate Judge Furse's October 25 Order for four reasons.[14] First, Defendants argue that the October 25 Order will cause Defendants to make an "unlawful disclosure" of their customers' "private, protected information" in the database.[15] According to Defendants, this will "violate[] numerous personal rights and constitutional protections" of their customers, including a violation of the Fourth Amendment prohibition on unreasonable searches and seizures because the United States will use the customers' information from the database to audit customers' tax returns.[16] Second, Defendants argue that the presence of a videographer is an "expense and intrusion" that is disproportionate to Defendants' discovery obligations.[17] Third, Defendants claim that the information in their database "does not advance any issue in this dispute."[18] Fourth, Defendants argue that until "there is a judicial determination" that the tax benefits Defendants promoted (a depreciation deduction for solar lenses and solar energy tax credits) are unlawful, "the information obtained by the government in this case should not be used for enforcement purposes and the Protective Order entered in this case should be clarified to

[13] October 25 Order at ¶ 12 (emphasis in original).

[14] Objection.

[15] *Id.* at 1-3.

[16] *Id.* at 1-3.

[17] *Id.* at 4.

[18] *Id.* at 4.

prohibit the government's use of confidential information outside of the parameters of this case."[19]

II. Standard of Review

When reviewing orders of a magistrate judge resolving non-dispositive pretrial matters, "[t]he district judge in the case must consider timely objections and modify or set aside any part of the order that is clearly erroneous or is contrary to law."[20] The October 25 Order is a non-dispositive discovery order because it does not resolve any claim or defense in this case.[21]

III. Discussion

Defendants contest only two features of the October 25 Order: 1) the requirement to produce customer information (whether through the database or through actual contracts) to the United States, and 2) the presence of the videographer to record the collection of data and documents. The record on these issues is clear: these terms of the October 25 Order are not clearly erroneous or contrary to law. Moreover, Defendants cite no legal authority to support their Objection.

The United States' Motion to Compel showed that the documents and information at issue are relevant, responsive to the United States' discovery requests, and within Defendants' possession, custody, or control.[22] Defendants had the opportunity to file a brief in opposition to the Motion to Compel, which they did not do. That was the time to raise arguments regarding

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[19] *Id*. at 4-5.

[20] Fed. R. Civ. P. 72(a).

[21] *See Hutchinson v. Pfeil*, 105 F.3d 562, 566 (10th Cir. 1997).

[22] Docket no. 210, filed August 17, 2017.

relevance, customer privacy, and proportionality. Defendants did present oral argument at a hearing before Magistrate Judge Furse, in which, she ordered Defendants to produce the documents and information.[23] Defendants did not object to Magistrate Judge Furse's order compelling them to produce. However, they failed to obey it with respect to the three categories of documents and information at issue.

When a party fails to obey a discovery order, Fed. R. Civ. P. 37(b)(2)(A) allows the court to "issue further just orders" to enforce compliance. The sanction for a party's violation of a discovery order must be "both 'just' and 'related to the particular 'claim' which was at issue in the order to provide discovery.'"[24] Here, the order to make available to the United States information relevant to its claims in this case is both just and related to the underlying problem that inspired the motion in the first place. Because Defendants did not voluntarily and timely produce this relevant information that is responsive to the United States' discovery requests as was ordered by Magistrate Judge Furse, it is appropriate to allow counsel for the United States to go get it.[25]

The portion of the October 25 Order allowing the United States to bring a videographer to record collection of data and documents is also a just and fitting response to Defendants'

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[23] Order Granting United States' Expedited Motion to Compel Defendants to Produce Documents, Docket no. 218, filed September 13, 2017.

[24] *Ehrenhaus v. Reynolds*, 965 F.2d 916, 920–21 (10th Cir. 1992) (quoting *Insurance Corp. of Ireland v. Compagnie des Bauxites de Guinee*, 456 U.S. 694, 707 (1982)); *accord Osborn v. Brown*, No. 2:12-CV-00775-TC-EJF, 2014 WL 12526269, at *3 (D. Utah Feb. 25, 2014) (issuing an order which, though not explicitly enumerated in Fed. R. Civ. P. 37(b), was "just," "related to the particular 'claim' at issue," and "calculated to result in compliance with discovery obligations") (Furse, M.J.).

[25] *See* Fed. R. Civ. P. 37(b)(2)(A) (if a party fails to follow a discovery order, a court may issue "further just orders").

conduct to date.[26] Defendants, to date, have failed to produce the requested information and have failed to comply with court orders. Recording the collection activity with video and audio will promote safe and complete enforcement of the October 25 Order while counsel for the United States, and its vendors, are on Defendants' property.

The fee provision in the October 25 Order is also consistent with the law. When a party fails to obey a discovery order, a court "must order the disobedient party, the attorney advising that party, or both to pay the reasonable expenses, including attorney's fees, caused by the failure."[27] Defendant Neldon Johnson admitted, under penalty of perjury, to having the information and documents this Court ordered him to produce.[28] Defendants have not produced the information and documents. The United States has incurred costs to enforce the order compelling production, and will incur additional costs to collect data and documents because Defendants cannot be trusted to voluntarily produce them. Magistrate Judge Furse's order awarding the United States its reasonable costs for enforcement is entirely consistent with Fed. R. Civ. P. 37(b)(2)(C).

IV. Conclusion and Order

Magistrate Judge Furse issued an order for sanctions under Rule 37 that is just and appropriate to correct Defendants' failure to obey an order to produce relevant and responsive documents in their possession, custody, or control.

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[26] Although the United States did not make the videographer a feature of its brief or oral argument, the United States' proposed order granting its motion for sanctions contained this term. Defendants received the United States' proposed order when the United States sent the proposed order to the Magistrate Judge. They were on notice that the videography term may be included in the ultimate order granting the motion.

[27] Fed. R. Civ. P. 37(b)(2)(C) (fee award is warranted "unless the failure was substantially justified or other circumstances make an award of expenses unjust," which is not the case here).

[28] Motion to Compel at 3.

IT IS HEREBY ORDERED that Defendants' Objection is OVERRULED and Magistrate Judge Furse's Decision is AFFIRMED.

Dated January 24, 2018.

BY THE COURT:

David Nuffer
United States District Judge

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IN THE UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON, and ROGER FREEBORN, Defendants.	**UNITED STATES' OPPOSITION TO DEFENDANTS' MOTION TO ALTER OR AMEND FINDINGS, ORDERS, AND JUDGMENT** Civil No. 2:15-cv-00828 DN Chief Judge David Nuffer Magistrate Judge Evelyn J. Furse

On September 14, 2018, Defendants filed a motion under Fed. R. Civ. P. 59(e) to alter or amend the court's current orders and pending findings[1] based on "new evidence and the need to prevent manifest injustice."[2] Defendants also ask the Court to "reopen the matter to take additional evidence of electrical power production which has occurred since the close of evidence."[3] In support of their motion, Defendants submitted three exhibits: (1) "Confirmation of Electrical Power Production Using Johnson Fresnel Lens in the Field Coupled to a Sterling Engine" by Johnny Kraczek, Jeffrey Jorgensen, Kerm Jackson, and Paul Freeman;[4] (2) "Sterling Engine Power Production Data,;"[5] and (3) "Exhibit Resume of John Kraczek."[6]

Almost three month after they chose to rest their case without calling a single witness,[7] Defendants claim these three exhibits constitute "newly discovered evidence." Defendants' belated attempt to submit unverified, unsworn statements of a purported expert, adds to the string of questionable maneuvers they have made sine trial.[8] However, Defendants are not free to

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[1] ECF Doc. No. 451, at 1. Defendants specifically reference the Initial Order and Injunction after Trial, ECF Doc. No. 413, and the Court's Memorandum Decision and Order Freezing Assets and to Appoint a Receiver, ECF Doc. No. 444.

[2] ECF Doc. No. 451.

[3] ECF Doc. No. 451, at 1-2.

[4] ECF Doc. No. 451-1.

[5] ECF Doc. No. 451-2.

[6] ECF Doc. No. 451-3.

[7] Tr. 2379:21-2380:4.

[8] In the almost three months since trial concluded, Defendants have engaged in a variety of questionable procedural maneuvers. For example, Defendant RaPower-3 filed a bad faith bankruptcy, *In re RaPower-3*, Case No. 18-cv-000608-DN (D. Utah), to try and collaterally attack this Court's potential asset freeze and receiver order. Recently, Defendant Neldon Johnson has sued Judge Nuffer, the IRS and the DOJ based on frivolous allegations. *See Johnson v. Internal Revenue Service, et al.*, Case No. 18-cv-62-TS (D. Utah). Additionally, Defendants have potentially violated this Court's order freezing assets by conducting the test that is the subject of their motion. *See* ECF Doc. No. 444; ECF Doc. No. 451, ECF Doc. No. 451-1; ECF Doc. No. 451-2; ECF Doc. No. 451-3. It is not clear how

ignore Court deadlines and procedure until they realize they could have, or should have put on a better case.[9] Defendants' motion should be denied because: (1) it is untimely; (2) does not present "newly discovered evidence," and; (3) even if the "evidence" is considered, it does not require any change in the orders or findings made in this case or any orders, findings or judgment this Court intends to enter.

I. Defendants' motion is untimely.

Defendants styled their motion as a motion under Rule 59(e) and 52(b), but their motion does not satisfy the literal language of the Rules. Fed. R. Civ. P. 59(e) specifies that a motion to alter or amend a judgment must be filed no later than 28 days *after* entry of the judgment.[10] Similarly, Fed. R. Civ. P. 52(b) requires a motion for amended or additional findings to be filed no later than 28 days after the entry of judgment.[11] The Court has not yet entered a final judgment in this case. As such, Defendants' motion is premature. [12]

If Defendants' motion is not premature, it is still untimely with respect to the June 22, 2018 findings and Initial Order and Injunction after Trial.[13] The findings and Initial Order and

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Defendants paid for the experts or the Stirling engines or when those payments were made. Further, even merely installing the Stirling engines on the towers could have constituted a violation of the asset freeze if done after August 22, 2018, the date of the order.

[9] *Ryder v. City of Topeka*, 814 F.2d 1412, 1426 (10th Cir. 1987) (quotation omitted).

[10] Fed. R. Civ. P. 59(e).

[11] Fed. R. Civ. P. 52(b).

[12] Because the Court has made preliminary findings and indicated which action it intends to take, the Court can deem the motion timely even though formal judgment has been entered. *See Hilst v. Bowen*, 874 F.2d 725, 726 (10th Cir. 1989) and the cases cited therein. As discussed below, Defendants are not entitled to relief under the standards for a Rule 59(e) motion. However, if the Court considers the merits of Defendants' motion and rules against them, Defendants are prohibited from making another Rule 59(e) motion on the same grounds. *Servants of the Paraclete v. Does*, 204 F.3d 1005, 1012 (10th Cir. 2000).

[13] ECF Doc. No. 413.

Injunction after Trial were entered on June 22, 2018, making any motion under Rule 59(e) due on July 20, 2018, 28 days later.[14] Defendants do not discuss timeliness in their motion nor provide any reason for the delay or any precedent that would support the late-filing.

To the extent that Defendants claim that the intervening bad faith bankruptcy filing by RaPower-3 somehow tolls the time within which to file a motion under Rule 59(e) or 52(b), such a tolling would only apply to a motion made by RaPower-3. Even assuming that a tolling occurred, seven days had already elapsed before RaPower-3 filed bankruptcy. The remaining 21 days would then run from the date the bankruptcy case was dismissed, August 22, 2018. To be timely filed within 28 days (assuming tolling occurred), RaPower-3's motion was due September 12, 2018 – two days before it was actually filed. As such, it was untimely with respect to the order and findings of June 22, 2018.

Defendants filed their motion on September 14, 2018 which was within the 28 days after the Court's August 22, 2018 Memorandum Decision and Order Freezing Assets and to Appoint a Receiver ("the Memorandum Decision and Order"). However, even though Defendants' motion is timely in that respect, Defendants are not entitled to relief under Rule 59(e) or 52(b), as discussed below.[15]

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[14] Fed. R. Civ. P. 59(e), 52(b). A court cannot extend the time to act under Fed. R. Civ. P. 52(b), 59(e) or 60(b). *See* Fed. R. Civ. P. 6(b)(2).

[15] On August 27, 2018, Defendants filed a notice of appeal with respect to the Memorandum Decision and Order. This Court may still however, proceed to rule on Defendants' motion with respect to the Memorandum Decision and Order. *Free Speech v. Federal Election Commission*, 720 F.3d 788, 791-92 (10th Cir. 2013) ("Ordinarily an interlocutory injunction appeal under [28 U.S.C.] § 1292(a)(1) does not defeat the power of the trial court to proceed further with the case.") (quoting 16 C. Wright, A. Miller, E. Cooper, *Federal Practice and Procedure*, § 3921.2).

II. Defendants are not entitled to relief under Rule 59(e).

The decision to grant or deny a motion under Rule 59(e) is committed to the Court's discretion.[16] Under Rule 59(e), a court may alter or amend a judgment it has entered if there is "(1) an intervening change in the controlling law, (2) new evidence previously unavailable, and (3) the need to correct clear error or prevent manifest injustice."[17] However, a Rule 59 motion is not appropriate to revisit issues that have already been addressed or to advance arguments or new supporting facts that could have been addressed in prior briefing. [18]

Defendants do not claim an intervening change in controlling law. Rather, Defendants claim to have "newly discovered evidence" which shows that a manifest injustice will occur if the Court does not alter or amend its current orders and findings and any orders, findings and judgments it intends to enter. However, Defendants' have not shown that the "evidence" is "newly discovered," that the "evidence" is admissible, or that such evidence requires findings in their favor.

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[16] *Phelps v. Hamilton*, 122 F.3d 1309, 1324 (10th Cir. 1997).

[17] *Servants of the Paraclete v. Does*, 204 F.3d 1005, 1012 (10th Cir. 2000) (citing *Brumark Corp. v. Samson Resources Corp.*, 57 F.3d 941, 948 (10th Cir. 1995)). The Court has the discretion to review the substance of the motion to ensure that it is appropriately considered a Rule 59(e) motion as opposed to a motion under Rule 54(b) or 60(b). *See, e.g., Balding v. Sunbelt Steel Texas, Inc.*, 2017 WL 1435719, at *4 (D. Utah. 2017); *FDIC v. Arciero*, 741 F.3d 1111, 1117 (10th Cir. 2013); *Hannon v. Maschner*, 981 F.2d 1142, 1144 n.2 (10th Cir. 1992). In this case, because Defendants are asking for the Court to alter or amend orders and findings that have occurred as well as any subsequent orders, findings, and judgment the Court issues, Defendants are asking for relief under Rule 59(e). Defendants have not requested a new trial or an opportunity to supplement the record. Rather, Defendants ask this Court to accept the exhibits as the basis for altering or amending their motion. The standards under Rules 52(b), 54(b), 59(e) and 60(b) are similar, but even under the most lenient standard, Defendants' motion must be denied.

[18] *Driessen v. Sony Music Entertainment*, 2015 WL 5007927 at *2 (D. Utah), (quoting *Van Skiver v. United States*, 952 F.2d 1241, 1242-44 (10th Cir. 1991)).

A. Defendants do not present any "newly discovered evidence."

When supplementing a Rule 59(e) motion with additional evidence, the movant must show either that the evidence is newly discovered and if the evidence was available at the time of the decision being challenged, that counsel made a diligent yet unsuccessful effort to discover the evidence.[19] Furthermore, newly discovered evidence must be *admissible* and credible to support relief under Rule 59(e).[20] But, Rule 59(e) motions are not to be used as a second chance when a party has failed to present its strongest case in the first instance.[21] The key is that the evidence must be "newly discovered" and not evidence that Defendants could have been presented to the Court at trial. Here, Defendants' motion fails because the evidence is not admissible or credible and is not "newly discovered."

To support their motion, Defendants submitted three exhibits: (1) "Confirmation of Electrical Power Production Using Johnson Fresnel Lens in the Field Coupled to a Sterling Engine" by Johnny Kraczek, Jeffrey Jorgensen, Kerm Jackson, and Paul Freeman;[22] (2) "Sterling Engine Power Production Data,;"[23] and (3) "Exhibit Resume of John Kraczek."[24] The exhibits submitted are unverified and unsworn statements of individuals who have not been subjected to

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[19] *Estate of Herrick v. United States*, 2016 WL 2939145, at *1 (D. Utah) (citing *Committee For the First Amendment v. Campbell*, 962 F.2d 1517, 1523 (10th Cir. 1992)).

[20] *FDIC v. Arciero*, 741 F.3d 1111, 1118 (10th Cir. 2013) (citing *Goldstein v. MCI WorldCom*, 340 F.3d 238, 257 (5th Cir. 2003).

[21] *Sec., Serv. Fed. Credit Union v. First Am. Mortgage Funding, LLC*, 906 F.Supp.2d 1108, 1111 (D.Colo.2012), overruled on unrelated grounds in *Sec., Serv. FCU v. First Am. Mortg. Funding, LLC*, 771 F.3d 1242 (10th Cir. 2014).

[22] ECF Doc. No. 451-1.

[23] ECF Doc. No. 451-2.

[24] ECF Doc. No. 451-3.

cross-examination or other questioning. Defendants have not even attempted to lay the foundation for the documents to be admissible. Defendants have essentially attempted to submit an expert report well past the expert deadlines in this case and only *after* expert disclosures, expert discovery, trial, and the Court's oral ruling. Defendants have the burden to establish the admissibility of the documents and have failed to meet it.

Even if the documents were admissible, they are not "newly discovered." Defendants claim to have run a test on September 5, 2018, more than two months after trial concluded and almost two full weeks after the Court issued its Memorandum Decision and Order Freezing Assets and to Appoint a Receiver. Defendants essentially claim that the Court's oral ruling was what prompted their efforts to "end their research and begin electrical production."[25] This is simply one more instance of Defendants' worn-out "WE ARE JUST ABOUT READY TO FLIP THE SWITCH"[26] under the guise of "newly discovered evidence."[27] However, Defendants have been on notice of the claims in this case relating to their technology since we filed the Complaint. Defendants were further put on notice at the Rule 26(f) meeting, throughout over two years of discovery, and at the trial of this case where the United States' expert, Dr. Thomas Mancini, testified about the state of Defendants' technology. The timing of these purported tests and "newly discovered evidence" was wholly within Defendants' control. Defendants have

[25] ECF Doc. No. 452, at 1-2.

[26] Pl. Ex. 329 at 1.

[27] ECF Doc. No. 452 at 2.

provided no justification for the lateness of the "evidence" or attempted to explain why this testing or demonstration was impossible before trial.

Defendants chose to proceed with the case and chose to rest without calling a single witness when it was time to present their case-in-chief after resisting discovery in this case, including about their technology.[28] "Unlike the Emperor Nero, litigants cannot fiddle as Rome burns. A party who sits in silence [and] withholds potentially relevant information … does so at his peril."[29] The Court should not now grant a new trial or reopen evidence merely because Defendants realize that they could have presented a better case.[30]

B. Even if Defendants submitted "newly discovered evidence," nothing in the submission requires the altering or amending of any finding, order, or any subsequent order, finding or judgment.

Defendants' three exhibits demonstrate their continued evolution to promote their scheme. The United States' expert, Dr. Thomas Mancini, reviewed Defendants' motion, the three related exhibits, and their website.[31] As Dr. Mancini concludes, this is the first instance, and after more than a decade of promoting the scheme and causing millions of dollars of harm to the U.S. Treasury, where Defendants have indicated that they used a dish/Stirling engine in conjunction with their solar lenses to generate electricity.[32] This was not the system described by Defendants

[28] Tr. 2379:21-2380:4.

[29] *Vasapolli v. Rostoff*, 39 F.3d 27, 36 (1st Cir. 1994); *MacArthur v. San Juan County*, 405 F.Supp.2d 1302, 1305-06 (D. Utah 2005) (citation omitted).

[30] *Ryder v. City of Topeka*, 814 F.2d 1412, 1426 (10th Cir. 1987) (quotation omitted).

[31] Declaration of Dr. Thomas Mancini in support of United States' Opposition (hereinafter "Declaration of Dr. Mancini"), ¶¶ 5, 6.

[32] Declaration of Dr. Mancini, ¶ 10.

in discovery or at trial.[33] Using a dish/Stirling engine is a fundamentally different process than the previous information which suggested they intended to use the Rankine cycle to generate electricity.[34] Defendants' newest submissions have not changed Dr. Mancini's opinions or the testimony he offered at trial.[35] Specifically, Dr. Mancini still holds the opinion that the new design is not a viable system for producing electricity on a commercial scale.[36]

Defendants' submissions further show that they have failed to address technical and practical issues with this new design such as a tracking and alignment mechanism.[37] Defendants have also failed to provide any pricing information and appear to have only procured one engine.[38] This suggests that Defendant procured one dish/Stirling engine merely to demonstrate so-called "measurable energy" in one more attempt to delay the result in this case. Similar to the system and technology described in discovery and trial, this "new" design will not produce usable energy from the sun, particularly as a commercialized system that sells electrical power.[39] As such, Defendants are not entitled to the relief requested under Rule 59(e).

III. Conclusion.

Defendants' claims that they didn't understand that their system needed to produce electricity until the Court issued its oral findings and Initial Order and Injunction after Trial ring

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[33] *Id.*

[34] *Id.*

[35] Declaration of Dr. Mancini, ¶ 17.

[36] Declaration of Dr. Mancini, ¶¶ 14, 17.

[37] Declaration of Dr. Mancini, ¶ 12.

[38] Declaration of Dr. Mancini, ¶ 16.

[39] Declaration of Dr. Mancini, ¶¶ 14, 17.

hollow. For more than ten years, Defendants have made false or fraudulent statements to their customers about the state of their technology and the tax benefits the customers could claim if they invested in Defendants' technology all while using money from the U.S. Treasury to fund their scheme. Defendants crafted statement upon statement that appeared to show success in their technology and success with the IRS by customers claiming tax benefits. And they altered those statements to their benefit all in an effort to zero out their customers' tax liabilities. For example, the facts proven at trial show that Defendants continually changed what the lenses would be used for when the customers' tax benefits were called into to question –customers were told their lenses would (1) produce electricity; (2) be used in research and development; (3) be used for advertising, and; (4) be used to produce solar process heat. Defendants' motion further exemplifies their egregious conduct by recycling past statements about producing electricity albeit now with a fundamentally different system.

Defendants miss the mark once again. The United States filed suit against Defendants to put a stop to their conduct of making false or fraudulent statements regarding tax benefits and to disgorge them of their ill-gotten gains. For more than 10 years, Defendants have engaged in this conduct and essentially robbed the U.S. Treasury of tens of millions of dollars in promoting this scheme which has all the hallmarks of an abusive tax shelter. Defendants' conduct clearly necessitates an injunction and disgorgement. Nothing about their "newly discovered evidence" changes that fact. Therefore, regardless of whether the Court considers Defendants' motion untimely or that it presents "newly discovered evidence," the analysis does not change. The Court need not alter or amend any findings, orders, or judgment. Defendants' motion should be denied.

Dated: September 28, 2018

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on September 28, 2018, the foregoing document and its exhibits were electronically filed with the Clerk of the Court through the CM/ECF system, which sent notice of the electronic filing to all counsel of record.

/s/ Erin R. Hines
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IN THE UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, and NELDON JOHNSON, Defendants.	Civil No. 2:15-cv-00828 DN **DECLARATION OF DR. THOMAS MANCINI** Chief Judge David Nuffer Magistrate Judge Evelyn J. Furse

I, Dr. Thomas Mancini, declare as follows:

1. I am over the age of 18 and competent to testify about the facts set forth in this declaration

2. I am a consultant in the field of applied solar energy, specifically in the area of solar thermal power generation. For more than 35 years at Sandia National Laboratories and most recently as a private consultant, my technical efforts have focused on helping the solar industry develop cost-competitive, commercial solar thermal systems.

3. The United States retained me to provide opinion testimony on various topics involving concentrated solar energy. My opinions are identified in my report[1] and I elaborated on them when I testified at trial.[2]

4. I make this declaration in support of the United States' opposition to the defendants' Motion to Amend/Correct the Court's ruling.[3]

5. I have reviewed the defendants' Motion to Amend/Correct the Court's ruling, and the documents filed in support: (1) "Confirmation of Electrical Power Production;"[4] (2) "Sterling Engine Power Production Data;"[5] and (3) "Exhibit Resume of John Kraczek."[6]

6. I also reviewed the defendants' website at rapower3.com, including the page at "https://www.rapower3.com/copy-of-turbine," which includes limited information on their "Stirling Engine." A copy of this webpage is attached to this declaration as Pl. Ex. 923.[7]

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[1] ECF Doc. No. 253-1.

[2] ECF Doc. No. 372; Trial Tr. 39:5-218:21.

[3] ECF Doc. No. 451.

[4] ECF Doc. No. 451-1.

[5] ECF Doc. No. 451-2.

[6] ECF Doc. No. 451-3.

[7] Pl. Ex. 923, attached, printout from RaPower-3 website, https://www.rapower3.com/copy-of-turbine (last accessed 9/24/2018).

Plaintiff's Exhibit 923 contains new information that was not on their website when I testified on April 2, 2018 or before that date.

7. According to the defendants, "the Johnson Fresnel lenses at issue in this case have been successfully used to generate independently measurable electricity" using a "Colorado" Sterling Engine built by Infinia.[8]

8. I am familiar with dish/Stirling[9] engines and I discussed them in my report.[10]

9. In January and April of 2017, I visited the defendants' manufacturing and testing sites in Delta, Utah. Those visits were in connection with this case and for a related matter for which the IRS retained me. I extensively reviewed all documents the defendants produced to the United States in this case.

10. This is the first time I have seen any information suggesting that the defendants were using dish/Stirling engines in conjunction with their solar lenses to generate electricity. All previous information stated that they intended to use the Rankine cycle with their in-house-developed bladeless steam turbine to generate electricity, a fundamentally different process requiring different equipment than the dish/Stirling engine.[11]

11. Based on the information provided by the defendants, they claim to have produced approximately 500 watts during two operational periods totaling 1 1/3 hour using a

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[8] ECF Doc. No. 451, p. 2.

[9] Defendants use the term "Sterling" throughout their motion and supporting materials. Since they reference a system that was built by Infinia, a company I was familiar with before their 2013 bankruptcy, and their website contains new information about "Stirling engines," Pl. Ex. 923, it appears that they are referring to the same dish/Stirling system that I described in my report. The correct spelling is "Stirling."

[10] See Expert Report of Thomas R. Mancini, ECF Doc. No. 253-1, p. 8.

[11] Expert Report of Thomas R. Mancini, ECF Doc. No. 253-1, ECF Doc. No. 253-1, p. 6, ¶ 25; Trial Tr. 58:12-59:4.

dish/Stirling engine generator on their solar dish. In order to fully evaluate the technical and commercial viability of this new solar energy system using the Stirling engine generator, I would need to perform a detailed analysis similar to the one I conducted for my July 2017 expert report[12].

12. Even absent a detailed analysis of the lens/dish Stirling system now proposed, my review of the defendants' submissions to the Court shows that the technical issues associated with the solar lenses, i.e., their alignment and tracking issues which I identified in my July 2017 report, have not been addressed.[13] Plaintiff's Exhibit 923 shows that the defendants intend to suspend four dish Stirling engine generators beneath the four circular concentrators on each solar tower.[14] The problem with this design is that there are major alignment and tracking issues to be overcome in order to keep all four dish/Stirling engine generators aligned with their respective solar concentrator on a single tower while tracking and the sun's position in the sky. Furthermore, even if the apparatus did track the sun, any amount of wind would cause the dish/Stirling engine generators to move out of the focused solar energy beams, thereby losing the sun's energy. This issue was a problem that I identified in my 2017 report for the receiver of the Rankine Cycle system and it is an even larger problem for any system using four Stirling engine generators on a single tracking structure.

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[12] ECF Doc. No. 253-1.

[13] This has always been a problem with the defendants' solar lens assembly, which I discussed in my trial testimony. Trial Tr. 90:11-92:18; 126:23- 127:7; 144:15-22. There is no suggestion that the defendants have addressed this problem in their most recent iteration of the technology.

[14] See Pl. Ex. 923, attached, printout from RaPower-3 website, https://www.rapower3.com/copy-of-turbine (last accessed 9/24/2018).

13. I am familiar with Infinia, the company that manufactured the dish/Stirling engine generators used by the defendants. For many years Infinia tried to make a dish/Stirling system comprising a single dish and a single Stirling engine generator to compete with conventional fossil fuels. The system they developed was simply too expensive and could not compete with fossil fuels. Infinia went bankrupt in 2013.

14. Even if the defendants could keep the four Stirling engine generators aligned with the four, focused solar energy beams, the new dish/Stirling System is not a viable system for producing electricity on a commercial scale. In the experiment reported by the defendants, only one of the four Stirling generator systems was operated, producing only 500 Watts of electrical power or 4 X 500 Watts if all four engine generators were in operation. They appear to have operated only one dish/Stirling engine generator solely to demonstrate so-called "measurable electricity."[15] Simply generating "measurable electricity" does not mean that a project will be commercially viable. This is a very small amount of electricity.

15. In fact, based on the reported analysis of Mr. Kraczek[16], the Infinia Stirling engine generator is not matched to the optical characteristics of the RaPower3 concentrator. He states in his conclusion that "[s]electing a Sterling Engine sized for this application and tuning the engine - generator will likely improve performance."[17] In his analysis, Mr. Kraczek derated the solar lens performance by 50% and the Stirling engine generator performance from 28% to 6%.[18] This

[15] ECF Doc. No. 451, p. 2.

[16] ECF Doc. No. 451-1.

[17] ECF Doc. No. 451-1, p. 12.

[18] ECF Doc. No. 451-1, p. 11.

indicates that the lens concentrator alignment and image size are far too large for the receiver, as I discussed in my earlier report. In fact, the actual predicted and measured performance of the dish/Stirling system using RaPower3 lenses are less than 2%. I made this calculation by dividing the predicted power generation (line 4.2 from page 11 of Mr. Kraczek's report, 537 Watts) by the solar energy incident on a circular lens which is calculated by multiplying of area of a lens (line 1.5 of Mr. Kraczek's report, 26.6 m^2) by a standard solar input of 1000 Watts per m^2. I repeated the calculation for the reported power production of 500 Watts as well. These predicted and reported solar-to-electric conversion efficiencies are an order of magnitude less than a typical dish/Stirling system which are on the order of 25 to 30%.

16. As with the original Rankine Cycle system, the defendants have not provided any cost information for the Stirling engine generator system. However, based on my experience with dish Stirling systems and due to the lower solar-to-electric conversion efficiency of their system, I know that the unit cost of energy will be extremely high.[19] This cost is even higher than Infinia experienced due to the fact that the RaPower3 dish Stirling system requires 4 engine generators per dish, assuming that they could even connect to the utility grid.

17. Based on my years of experience in the solar energy industry, knowledge of concentrated solar power and dish/Stirling systems, my opinions on the defendants' solar lens system utilizing a Stirling engine generator has not changed from the testimony I offered at trial

[19] As I testified, there is no indication that the defendants can connect to the grid. Trial Tr. 108:12-111:15.

for the Rankine Cycle system.[20] The defendants' solar lens technology will never produce usable energy from the sun as a commercialized system that sells electrical power.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 28, 2018, in Albuquerque, New Mexico.

DR. THOMAS MANCINI

[20] Trial Tr. 49:24-50:8.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, v. RAPOWER-3, LLC; INTERNATIONAL AUTOMATED SYSTEMS, INC.; LTB1, LLC; R. GREGORY SHEPARD; NELDON JOHNSON; and ROGER FREEBORN, Defendants.	**CORRECTED RECEIVERSHIP ORDER** Civil No. 2:15-cv-00828-DN District Judge David Nuffer

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ORDER

In accordance with the Memorandum Decision and Order Freezing Assets and to Appoint a Receiver ("Memorandum Decision"),[1] and the Findings of Fact and Conclusions of Law ("FFCL"),[2] and for good cause appearing,

IT IS HEREBY ORDERED that:

1. Defendants' Objection to Plaintiff's Proposed Receivership Order[3] is OVERRULED.

2. This Court takes exclusive jurisdiction and possession of all assets, of whatever kind and wherever situated, of Defendants RaPower-3 LLC, Neldon Johnson, International Automated Systems Inc. ("IAS"), LTB1 LLC, and R. Gregory Shepard (collectively, the "Receivership Defendants"), together with assets proven to be proceeds of activities of Receivership Defendants in possession of any and all subsidiaries and affiliated entities, including but not limited to:

   a. SOLCO I, LLC;

   b. XSun Energy, LLC;

   c. Cobblestone Centre, LC;

   d. DCL-16A, Inc.;

   e. DCL16BLT, Inc.;

   f. LTB O&M, LLC;

   g. N.P. Johnson Family Limited Partnership;

   h. Shepard Energy;

[1] Docket no. 444, filed August 22, 2018.

[2] Docket no. 467, filed October 4, 2018.

[3] Docket no. 461, filed September 28, 2018.

i. Shepard Global, Inc.;

j. Solstice Enterprises;

k. Black Night Enterprises; and

l. Starlight Enterprises.

3. Until otherwise ordered, Wayne Klein is appointed to serve without bond as receiver (the "Receiver") for the estate of the Receivership Defendants and any subsidiaries or affiliated entities, and he has standing to prosecute claims under the Uniform Voidable Transactions Act.[4]

A. Asset freeze.

4. The asset freeze included in the Memorandum Decision ("Asset Freeze") is hereby continued, which states:

> Except as otherwise provided herein, all assets of the Receivership Defendants are frozen until further order of this Court ("Receivership Property"). Accordingly, all persons and entities with direct or indirect control over any Receivership Property, other than the Receiver, are hereby restrained and enjoined from directly or indirectly transferring, setting off, receiving, changing, selling, pledging, assigning, liquidating, or otherwise disposing of or withdrawing such Receivership Property. This freeze shall include, but not be limited to, Receivership Property that is on deposit with financial institutions such as banks, brokerage firms and mutual funds, shares of stock, and any patents or other intangible property.[5]

5. The Asset Freeze is extended to include the subsidiaries and affiliated entities of the Receivership Defendants for the purpose of permitting the Receiver to investigate the assets, property, property rights, and interests of the subsidiaries and affiliated entities ("Extended Asset Freeze"). The Receiver is authorized, directed, and empowered to investigate all subsidiaries and

[4] UTAH CODE § 25-6-101, et seq.

[5] Memorandum Decision, *supra* note 1, ¶ 3.

affiliated entities of the Receivership Defendants to determine whether the assets, property, property rights, or interests of the subsidiaries and affiliated entities derive from the abusive solar energy scheme at issue in this case[6] or from an unrelated business activity. Once the Receiver completes his investigation of the subsidiaries and affiliated entities, he shall make a recommendation to this Court about whether the Receivership should extend to any of the investigated subsidiaries or affiliated entities or specific property of those entities. The subsidiaries and affiliated entities which the Receiver is directed to investigate include, but are not limited, to the entities listed in Paragraph 2 of this Order.

6. The Extended Asset Freeze shall be in force for a period of 120 days. Before the expiration of the Extended Asset Freeze in 120 days, the Receiver shall file his report and recommendation with this Court. The report and recommendation shall include the Receiver's recommendation as to whether the receivership should be extended to any of the investigated subsidiaries and affiliated entities or specific property of those entities. If the Receiver is unable to complete his investigation before the expiration of 120 days, the Receiver shall file a motion with this Court to extend the Extended Asset Freeze for the period of time needed to complete his recommendation. Nothing in the Receiver's report and recommendation shall prohibit or estop the Receiver from subsequently recovering assets, property, property interests, or rights from any subsidiary or affiliated entity by other means (e.g., a suit for a voidable transaction or fraudulent conveyance).

7. During the Extended Asset Freeze, the Receiver may communicate and consult with counsel for the United States regarding his investigation and may request counsel's opinion

[6] *See* FFCL, *supra* note 2; Memorandum Decision, *supra* note 1.

on whether the subsidiaries and affiliated entities or specific property of those entities should be included in the receivership estate.

8. The Asset Freeze extends to any subsidiaries or affiliated entities of the Receivership Defendants, their agents, servants, employees, attorneys, and those persons in active concert or participation with them who receive actual notice of this Order by personal service, facsimile service, or otherwise, and each of them shall hold and retain within their control and otherwise prevent any withdrawal, transfer, pledge, encumbrance, assignment, dissipation, concealment, or other disposal of assets, funds, or other properties (including money, real or personal property, securities, choses in action, or property of any kind whatsoever) of the Receivership Defendants. This applies to assets held by Receivership Defendants or under their control, at any time after inception of this action, whether such assets were or are held in the name of any Receivership Defendant or for their direct or indirect beneficial interest wherever situated. The Receivership Defendants shall direct each of the financial or brokerage institutions, debtors, and bailees, or any other person or entity holding such assets, funds, or other properties of any Receivership Defendant to hold or retain within their control and prohibit the withdrawal, removal, transfer, or other disposal of any such assets, funds, or other properties.

B. Termination of authority and removal of officers and directors.

9. The directors, officers, managers, employees, trustees, investment advisors, accountants, attorneys, and other agents of RaPower-3 LLC, IAS, and LTB1 LLC (collectively, the "Entity Receivership Defendants")[7] are hereby dismissed, and the powers of any general

[7] If the Receiver determines after his investigation that the Receivership should be extended to include any of the subsidiaries or affiliated entities, and the Court agrees, then this provision (and all provisions involving the Entity Receivership Defendants) shall extend to the additional subsidiaries and affiliated entities that are subsequently made part of the receivership. This shall be deemed to occur on the date the Court agrees with the Receiver's recommendation even if an amended order has not yet been issued.

partners, directors, or managers are hereby suspended. Such persons shall have no authority with respect to the Entity Receivership Defendants' operations or assets, except to the extent as may hereafter be expressly granted by the Receiver.

10. No person holding or claiming any position of any sort with any of the Receivership Defendants shall possess any authority to act by or on behalf of any of the Receivership Defendants. Neither Johnson nor Shepard, nor anyone acting on their behalf, shall make any court filings or submissions to other government entities on behalf of the Entity Receivership Defendants other than in this case or in the pending appeal of an order in this case. Payment for any attorneys' fees, expenses, or other costs of such court filings or submissions shall be made from property that is not Receivership Property ("Non-Receivership Property"). Any filing or submission by any Receivership Defendant must contain a statement, made under penalty of perjury, identifying the source of the funds for the filing or submission in sufficient detail to show that the funds are not Receivership Property or otherwise derived from the solar energy scheme.

C. General powers and duties of Receiver; control over entities.

11. The Receiver shall have all powers, authorities, rights, and privileges heretofore possessed by the owners, members, shareholders, officers, directors, managers, and general and limited partners of the Entity Receivership Defendants under applicable state and federal law, by the governing charters, bylaws, articles, or agreements in addition to all powers and authority of a receiver at equity, and all powers conferred upon a receiver by the provisions of 28 U.S.C. §§ 754, 959, 1692, and Fed. R. Civ. P. 66, and this Court. The Receiver is authorized to sue and be sued as provided in 28 U.S.C. §§ 754, 959, 1692, and Fed. R. Civ. P. 66, and by this Court.

12. The Receiver shall assume and control the operation of the Entity Receivership Defendants and shall pursue and preserve all their claims.

13. Subject to specific provisions in this Order, the Receiver shall have the following general powers and duties:

a. To use reasonable efforts to determine the nature, location and value of all property interests of each of the Receivership Defendants, including Johnson and Shepard. These property interests include, but are not limited to: monies, accounts, trusts, funds, digital currencies, securities, credits, stocks, bonds, effects, goods, chattels, intangible property (including patents and other intellectual property), real property, lands, premises, leases, claims, rights, ownership interests in domestic or foreign entities, and other assets, together with rents, profits, dividends, receivables, interest, or other income attributable thereto, of whatever kind, that the Receivership Defendants own, possess, have a beneficial interest in, or control directly or indirectly ("Receivership Property").

b. To take custody, control, and possession of all Receivership Property and records relevant thereto from the Receivership Defendants; to sue for and collect, recover, receive, and take into possession from third parties all Receivership Property and records relevant thereto.

c. To manage, control, operate, and maintain the Receivership Property and hold in his possession, custody, and control all Receivership Property, pending further order of this Court.

d. Except as otherwise provided in this Order, to use Receivership Property for the benefit of the receivership, making payments and disbursements and incurring expenses as may be necessary or advisable in the ordinary course of business in discharging his duties as Receiver.

e. To take any action which, prior to the entry of this Order, could have been taken by the officers, directors, partners, managers, members, shareholders, trustees, and agents of the Entity Receivership Defendants.

f. To engage and employ persons in his discretion to assist him in carrying out his duties and responsibilities hereunder, including, but not limited to, accountants, attorneys, forensic experts, securities traders, registered representatives, financial or business advisers, liquidating agents, real estate agents, brokers, traders, or auctioneers.

g. To take such action as necessary and appropriate for the preservation of Receivership Property or to prevent the dissipation or concealment of Receivership Property.

h. To open all mail directed to or received by or at the offices or post office boxes of the Receivership Defendants, and to inspect all mail opened prior to the entry of this Order, to determine whether items or information therein fall within the mandates of this Order; provided, however, that mail originating with counsel for Receivership Defendants may only be opened after a court order.

i. To assert, prosecute, and negotiate any claim under any insurance policy held by or issued on behalf of the Receivership Defendants or their officers, directors, agents, employees, or trustees, and to take any and all appropriate steps in connection with such policies.

j. To issue subpoenas and letters rogatory to compel testimony of persons or production of records, consistent with the Federal Rules of Civil Procedures and applicable Local Rules, except for the provisions of Fed. R. Civ. P. 26(d)(1), concerning any subject matter within the powers and duties granted by this Order.

k. To seek information from governments and entities outside the United States pursuant to mutual legal assistance treaties or other agreements to which the United States or an instrumentality of the United States is a party.

l. To bring legal actions based on law or equity in any state, federal, or foreign court as the Receiver deems necessary or appropriate in discharging his duties as Receiver. In determining which legal actions are likely to be cost effective, the Receiver may consult with counsel for the United States in making decisions on which actions to pursue.

m. To pursue, resist, defend, and settle all suits, actions, claims, and demands which may now be pending or which may be brought by or asserted against the receivership estate. In determining which suits, actions, claims and demands to pursue, resist, defend, or settle, the Receiver may consult with counsel for the United States in making decisions on such suits, actions, claims, and demands.

n. To assume all legal privileges, including attorney-client and accountant-client privileges, belonging to the Receivership Defendant entities, and determine in his discretion whether and when to assert or, on motion, to waive such privileges.

o. To compromise accounts receivable and other contractual claims of the Receivership Defendants and to abandon non-real-estate Receivership Property deemed by the Receiver to be of inconsequential value or benefit to the receivership estate on terms and in the manner the Receiver deems necessary or appropriate in the Receiver's business judgment.

p. To seek the assistance of the U.S. Marshals Service or from any other federal, state, county, or civil law enforcement offices or constables of any jurisdiction.

q. To alert the appropriate federal, state, local, or other law enforcement agency if the Receiver discovers a violation, or suspected violation, of federal, state, local, or other law in the course of his duties in administering the receivership, and to share such information and documents as may be necessary regarding the violation with that agency.

r. To take such other action as may be approved by this Court.

D. Receiver's control over assets, books, records, and accounts.

14. The Receivership Defendants, as well as their past and present officers, directors, agents, managers, servants, employees, attorneys, accountants, general and limited partners, trustees, and any persons acting for or on behalf of the Receivership Defendants, and any persons receiving notice of this Order by personal service, electronic transmission, or otherwise, are directed to preserve and turn over to the Receiver forthwith all paper and electronic information of, or relating to, the Receivership Property. The Receiver is authorized to request a modification of this provision or the previously issued Preservation Order.[8]

15. The Receiver is authorized to take immediate possession of all assets, bank accounts or other financial accounts, contents of safe deposit boxes, books, records, and all other documents or instruments—whether in paper or electronic form—relating to the Receivership Defendants; provided, however, that Receivership Defendants may retain copies at their own expense.

16. All persons and entities having control, custody, or possession of any Receivership Property or records of Receivership Defendants are hereby ordered to turn such

[8] Docket no. 419, filed June 27, 2018.

property over to the Receiver; provided, however, that Receivership Defendants may retain copies at their own expense.

17. The Receivership Defendants, as well as their agents, servants, employees, attorneys, any persons acting for or on behalf of the Receivership Defendants, and any persons receiving notice of this Order by personal service, electronic transmission, or otherwise, having possession of the property, business, books, records, accounts, or assets of the Receivership Defendants, are hereby ordered to deliver the same to the Receiver or his agents or employees.

E. Access to and control over real and personal property.

18. The Receiver is authorized, as the Receiver deems necessary or appropriate in the Receiver's business judgment, to take immediate possession of all personal property of the Receivership Defendants, wherever located, including but not limited to: electronically-stored information, computers, laptops, hard drives, external storage drives, and any other such memory, media or electronic storage devices, books, papers, data processing records, evidence of indebtedness, bank records and accounts, savings records and accounts, brokerage records and accounts, certificates of deposit, stocks, bonds, debentures, and other securities and investments, contracts, mortgages, furniture, office supplies, solar thermal lenses, machinery and equipment, tools, fixtures, metal, plastic, and other building materials.

19. The Receiver is authorized to take immediate possession of all vehicles and aircraft of the Receivership Defendants, wherever located, including but not limited to all ownership and leasehold interests and fixtures, including the following specific aircrafts:

a. Cessna, Model 172M, a 1973 fixed wing single-engine with serial number 17261885 and tail number 12213, believed to be located at the Spanish Fork-Springville airport in Utah County, Utah; and

b. Mooney, Model M20C, a 1969 fixed wing single-engine with serial number 700031 and tail number 9400V, believed to be located at the Spanish Fork-Springville airport in Utah County, Utah.

20. The Receiver is authorized to take immediate possession of all real property of the Receivership Defendants, wherever located, including but not limited to all ownership and leasehold interests and fixtures. The Receiver is authorized to file notices or other documents with the appropriate authorities to effectuate notice of its possession of the real property. The Receiver is authorized to take immediate possession of real property in which Receivership Defendants have a record interest, and to file a motion to take possession (a "Possession Motion") of real property in which Receivership Defendants have a beneficial interest even if titled in the name of another, such as a spouse or an affiliated entity, such as a family limited partnership. If the Receiver later determines the real property was incorrectly included in the receivership, or that a notice was incorrectly filed, the Receiver shall take steps to release possession of such real property to its owners. Specific real property for which the Receiver shall take immediate possession, or file a notice of intent to file a Possession Motion, includes the parcels described as follows:

a. Millard County, Utah assessor's parcel number 4805, with the following legal description:

THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 17 SOUTH, RANGE 9 WEST, SALT LAKE BASE AND MERIDIAN.

b. Millard County, Utah assessor's parcel number 4806-A, with the following legal description:

ALL OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 9 WEST, SALT LAKE BASE AND MERIDIAN.

c. Millard County, Utah assessor's parcel number 4806-B, with the following legal description:

THE EAST ONE-HALF OF SECTION 29, TOWNSHIP 17 SOUTH, RANGE 9 WEST, SALT LAKE BASE AND MERIDIAN.

d. Millard County, Utah assessor's parcel number DO-3151, with the following legal description:

BEGINNING WEST 997.12 FEET FROM THE NORTHEAST CORNER OF LOT 1, SECTION 4, TOWNSHIP 16 SOUTH, RANGE 7 WEST, SALT LAKE BASE AND MERIDIAN; THENCE WEST 332.38 FEET, MORE OR LESS, TO THE WEST BOUNDARY OF SAID LOT 1; THENCE SOUTH 1315.8 FEET; THENCE EAST 332.38 FEET; THENCE NORTH 1315.8 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM (THE SOUTH 2.4 FEET) ALL RIGHTS OF WAY, STOCK TRAILS, DITCHES AND CANALS, GRAVEL PITS AND GRAVEL BEDS.

e. Millard County, Utah assessor's parcel number DO-3276-1-1, commonly known as 4350 W. 5000 N., Delta, UT 84624, with the following legal description:

Beginning 960 feet East of the Southwest corner of the Southwest quarter of the Northeast quarter of Section 17, Township 16 South, Range 7 West, Salt Lake Base and Meridian, thence West 146 feet; thence North 911 Feet; thence East 368.991 feet; thence South 11 feet; thence South 16° 46' West 773 feet; thence South 159.862 feet more or less to the point of beginning.

f. Millard County, Utah assessor's parcel number DO-3396, with the following legal description:

Beginning at the Southeast corner of the Southwest Quarter of the Northeast Quarter of Section 32, Township 16 South, Range 7 West, Salt Lake Base and Meridian; Thence West 600 feet along the South boundary of the said Southwest Quarter of the Northeast Quarter of Section 32; Thence North 29° 23.3' East 998.5 feet; Thence East 110.0 feet to the East boundary of the said Southwest Quarter of the Northeast Quarter of Section 32, Thence South 210.0 feet, more or less to the Northeast corner of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter of said Section 32; Thence East 14.0 feet more or less, Thence South 135.0 feet; Thence East 170.0 feet; Thence North 135.0 feet; Thence East 276.0 feet; Thence South 135.0 feet; Thence West 100.0 feet; Thence South 165.0 feet; Thence East 170 feet; Thence North 300.0 feet; Thence East 130 feet; Thence South 660.0 feet to the Southeast corner of the

g. Millard County, Utah assessor's parcel number DO-3396-5, with the following legal description:

Beginning at a point 130 feet West and 135 feet South of the Northeast Corner of the Southwest 1/4 of the Southeast 1/4 of the Northeast 1/4 of Section 32, Township 16 South, Range 7 West, Salt Lake base and meridian, Thence South 165 feet, Thence West 170 feet, Thence North 165 feet, Thence East 170 feet to the point of beginning.

h. Millard County, Utah assessor's parcel number DO-3396-6, with the following legal description:

BEGINNING 130 FEET WEST OF THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 16 SOUTH, RANGE 7 WEST, SALT LAKE BASE AND MERIDIAN, THENCE SOUTH 135 FEET; THENCE WEST 70 FEET; THENCE NORTH 135 FEET; THENCE EAST 70 FEET TO THE POINT OF BEGINNING.

i. Millard County, Utah assessor's parcel number DO-3396-10, with the following legal description:

Beginning 476 feet West of the Northeast corner of the Southwest Quarter of the Southeast Quarter of the Northeast Quarter of Section32, Township 16 South, Range 7 West, Salt Lake Base and Meridian, Thence South 135 feet; Thence West 170 feet; Thence North 135 feet; Thence East 170 feet to the point of beginning.

j. Millard County, Utah assessor's parcel number DO-4568-1, commonly known as 2730 W. 4000 S., Oasis, UT 84624, with the following legal description:

COMMENCING AT A POINT LOCATED NORTH 89°33'23.5" EAST 1080.19 FEET ALONG THE QUARTER SECTION LINE FROM THE WEST QUARTER CORNER OF SECTION 34, TOWNSHIP 17 SOUTH, RANGE 7 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 00°41'09.5" EAST 77.73 FEET; THENCE NORTH 36°08'16" EAST 161.44 FEET; THENCE NORTH 69°36'58" EAST 49.80 FEET; THENCE NORTH 34°49'13.5" EAST 67.18 FEET TO AN EXISTING FENCE LINE; THENCE NORTH 65°24'28" EAST 195.30 FEET ALONG AN EXISTING FENCE LINE; THENCE NORTH 67°05'16" EAST 90.54 FEET ALONG AN EXISTING FENCE LINE; THENCE SOUTH 30°31'07" EAST 100.20 FEET; THENCE SOUTH 25°26'12" WEST 234.94 FEET TO THE NORTH SHOULDER OF AN EXISTING COUNTY ROAD; THENCE NORTH 77°51'02" WEST 12.17 FEET ALONG SAID NORTH SHOULDER OF THE EXISTING COUNTY ROAD; THENCE ALONG A CURVE TO THE LEFT 22.87 FEET WITH A RADIUS OF 43.026 FEET AND A CHORD BEARING AND DISTANCE OF SOUTH 86°55'28.5" WEST 22.60 FEET ALONG SAID NORTH SHOULDER OF THE EXISTING COUNTY ROAD; THENCE SOUTH 71°41'59" WEST 41.15 FEET ALONG SAID NORTH SHOULDER OF THE EXISTING COUNTY ROAD TO THE WEST RIGHT-OF-WAY LINE OF THE UNION PACIFIC RAILROAD; THENCE SOUTH 25°26'12" WEST 94.045 FEET ALONG SAID UNION PACIFIC RIGHT-OF- WAY TO QUARTER SECTION LINE; THENCE SOUTH 25°26'12" WEST 362.64 FEET ALONG SAID UNION PACIFIC RAILROAD RIGHT-OF-WAY; THENCE ALONG A CURVE TO THE LEFT 351.22 FEET WITH A RADIUS OF 706.78 FEET AND A CHORD BEARING AND DISTANCE OF NORTH 20°37'37" WEST 347.618 FEET TO THE QUARTER SECTION LINE AND THE POINT OF BEGINNING.

EXCEPTING: ANY PORTION WITHIN THE BOUNDARY OF THE COUNTY ROAD RIGHT-OF-WAY AND THE UNION PACIFIC RAILROAD RIGHT-OF-WAY.

**** RESERVING UNTO THE GRANTOR ANY AND ALL WATER RIGHTS ****

k. Millard County, Utah assessor's parcel number DO-SS-136 & 137, with the following legal description:

LOTS 136, 137 AND 138 SHERWOOD SHORES, A SUBDIVISION, ACCORDING TO THE OFFICIAL PLAT THEREOF, AS RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

l. Millard County, Utah assessor's parcel number HD-3511, with the following legal description:

SECTION 16, TOWNSHIP 16 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN.

LESS: BEGINNING AT THE SOUTHWEST CORNER OF SECTION 16, THENCE NORTH 1320 FEET; THENCE EAST 1320 FEET; THENCE SOUTH 1320 FEET; THENCE WEST 1320 FEET TO THE POINT OF BEGINNING.

SUBJECT TO A 30 FOOT EASEMENT AROUND THE PERIMETER OF SAID PROPERTY.(HD-3511)

m. Millard County, Utah assessor's parcel number HD-3511-1, with the following legal description:

BEGINNING AT THE SOUTHWEST CORNER OF SECTION 16, TOWNSHIP 16 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 1320 FEET; THENCE EAST 1320 FEET; THENCE SOUTH 1320 FEET; THENCE WEST 1320 FEET TO THE POINT OF BEGINNING.(HD-3511-1)

n. Millard County, Utah assessor's parcel number HD-4497-1, with the following legal description:

Beginning 18 rods South and 3 rods East of the Northwest Corner of the Southwest Quarter of Section 33, Township 17 South, Range 7 West, Salt Lake Base and Meridian; thence South 145 feet; thence East 15 rods, thence North 145 feet; thence West 15 rods to the point of beginning.

EXCEPTING THEREFROM that portion lying within the boundaries of the State Road right of way.

o. Millard County, Utah assessor's parcel number HD-4606-2, with the following legal description:

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN. LESS: BEGINNING AT THE SOUTHEAST CORNER OF SECTION 2, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN, THENCE SOUTH 89°51'00" WEST 544.50 FEET ALONG THE SOUTH BOUNDARY OF SECTION 2, THENCE NORTH 600 FEET PARALLELING THE EAST BOUNDARY OF THE SOUTHEAST QUARTER OF SECTION 2; THENCE NORTH 89°51'00" EAST 544.50 FEET PARALLELING THE SOUTH BOUNDARY TO THE EAST BOUNDARY OF SECTION 2; THENCE SOUTH 600 FEET ALONG THE EAST BOUNDARY OF SECTION 2, TO THE POINT OF BEGINNING. EXCEPTING THEREFROM ALL RIGHTS OF WAY, STOCK TRAILS, DITCHES AND CANALS, GRAVEL PITS AND GRAVEL BEDS. TOGETHER WITH WATER RIGHT NO. 68-2388, APP.*CLAIM NO. A57256. SUBJECT TO A RIGHT OF WAY FOR A COUNTY ROAD, AND INCIDENTAL PURPOSES AS NOW EXISTS.

p. Millard County, Utah assessor's parcel number HD-4606-2-1, with the following legal description:

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN. LESS: BEGINNING AT THE SOUTHEAST CORNER OF SECTION 2, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN, THENCE SOUTH 89°51'00" WEST 544.50 FEET ALONG THE SOUTH BOUNDARY OF SECTION 2, THENCE NORTH 600 FEET PARALLELING THE EAST BOUNDARY OF THE SOUTHEAST QUARTER OF SECTION 2; THENCE NORTH 89°51'00" EAST 544.50 FEET PARALLELING THE SOUTH BOUNDARY TO THE EAST BOUNDARY OF SECTION 2; THENCE SOUTH 600 FEET ALONG THE EAST BOUNDARY OF SECTION 2, TO THE POINT OF BEGINNING. EXCEPTING THEREFROM ALL RIGHTS OF WAY, STOCK TRAILS, DITCHES AND CANALS, GRAVEL PITS AND GRAVEL BEDS. TOGETHER WITH WATER RIGHT NO. 68-2388, APP.*CLAIM NO. A57256. SUBJECT TO A RIGHT OF WAY FOR A COUNTY ROAD, AND INCIDENTAL PURPOSES AS NOW EXISTS.

q. Millard County, Utah assessor's parcel number HD-4609, with the following legal description:

THE WEST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN.

EXCEPTING THEREFROM ALL OIL, GAS AND/OR OTHER MINERALS IN, ON OR UNDER SAID LAND, TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS FOR THE PURPOSE OF EXPLORING AND/OR REMOVING THE SAME.

r. Millard County, Utah assessor's parcel number HD-4612, with the following legal description:

THE SOUTH HALF OF SECTION 3, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN.

s. Millard County, Utah assessor's parcel number HD-4648, with the following legal description:

THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 11, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN. (HD-4648)

t. Millard County, Utah assessor's parcel number HD-4654, with the following legal description:

THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN.

EXCEPTING THEREFROM ALL RIGHTS OF WAY, STOCK TRAILS, DITCHES AND CANALS, GRAVEL PITS AND GRAVEL BEDS.

u. Millard County, Utah assessor's parcel number HD-4657, with the following legal description:

THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN.

EXCEPTING THEREFROM ALL RIGHTS OF WAY, STOCK TRAILS, DITCHES AND CANALS, GRAVEL PITS AND GRAVEL BEDS.

EXCEPTING THEREFROM ALL OIL, GAS AND/OR OTHER MINERALS IN, ON OR UNDER SAID LAND, TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS FOR THE PURPOSE OF EXPLORING AND/OR REMOVING THE SAME.

v. Millard County, Utah assessor's parcel number HD-4658, with the following legal description:

BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN , THENCE NORTH 0°48'32" EAST 234.51 FEET ALONG THE SECTION LINE; THENCE NORTH 78°41'15" EAST 680 FEET; THENCE SOUTH 03°07'08" WEST 378.38 FEET TO THE SOUTH BOUNDARY OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER; THENCE NORTH 89°07'23" WEST 649.59 FEET ALONG SAID SOUTH BOUNDARY TO THE POINT OF BEGINNING. (HD-4658)

w. Millard County, Utah assessor's parcel number HD-4658-1, with the following legal description:

THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN.

EXCEPTING THEREFROM ALL OIL, GAS AND/OR OTHER MINERALS IN, ON OR UNDER SAID LAND, TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS FOR THE PURPOSE OF EXPLORING AND/OR REMOVING THE SAME.

LESS: BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 17 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN, THENCE NORTH 0°48'32" EAST 234.51 FEET ALONG THE SECTION LINE; THENCE NORTH 78°41'15" EAST 680 FEET; THENCE SOUTH 03°07'08" WEST 378.38 FEET TO THE SOUTH BOUNDARY OF SAID NORTHWEST QUARTER OF THE NORTHWEST QUARTER; THENCE NORTH 89°07'23" WEST 649.59 FEET ALONG SAID SOUTH BOUNDARY TO THE POINT OF BEGINNING.

x. Millard County, Utah assessor's parcel number MA-2662-B, with the following legal description:

THE SOUTHEAST QUARTER AND THE NORTH HALF OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 15 SOUTH, RANGE 8 WEST, SALT LAKE BASE AND MERIDIAN. (MA-2662-B)

EXCEPTING THEREFROM: THAT PORTION WITHIN THE BOUNDARY OF THE MILLARD COUNTY ROAD RIGHT-OF-WAY.

y. Utah County, Utah assessor's tax parcel number 55-718-0006, commonly known as 11404 S. 5825 W., West Mountain, UT 84651, with the following legal description:

Lot 6, Plat "A", West Mountain Estates Amended Subdivision, according to the official plat thereof on file in the office of the Recorder, Utah County, Utah.

z. Utah County, Utah assessor's parcel number 514680132, commonly known as 1045 S. 1700 W., Unit 132, Payson, UT 84651, with the following legal description:

UNIT 132, BUILDING 1, CONTAINED WITHIN THE PLAT "A" RIDGESTONE CONDOMINIUMS, A CONDOMINIUM PROJECT AS THE SAME IS IDENTIFIED IN THE RECORD OF SURVEY MAP RECORDED ON AUGUST 23, 2006, IN UTAH COUNTY, AS ENTRY NO. 109522:2006 (AS SAID RECORD OF SURVEY MAP MAY HAVE HERETOFORE BEEN AMENDED OR SUPPLEMENTED) AND IN THE DECLARATION RECORDED ON AUGUST 23, 2006 IN UTAH COUNTY, AS ENTRY NO. 109524:2006 (AS SAID DECLARATION MAY HAVE HERETOFORE BEEN AMENDED OR SUPPLEMENTED.)

TOGETHER WITH THE APPURTENANT UNDIVIDED INTEREST IN SAID PROJECT'S COMMON AREAS AS ESTABLISHED IN SAID DECLARATION AND ALLOWING FOR PERIODIC ALTERATION BOTH IN THE MAGNITUDE OF SAID UNDIVIDED INTEREST AND IN THE COMPOSITION OF THE COMMON AREAS AND FACILITIES TO WHICH SAID INTEREST RELATES.

aa. Los Angeles County, California assessor's ID number 2842-027-174, commonly known as 18850 Vista Del Canon, Unit G, Newhall, CA 91321, with the following legal description:

TR=44328 Lot 9 Condo Unit 305

bb. San Bernardino County, California assessor's parcel number 0541131080000, with the following legal description:

W 1/2 W 1/2 E 1/2 W 1/2 SEC 33 TP 11N R 4E EX PTN LYING S OF N LI HGWY 91 AND EX COM AT NW COR E 1/2 W 1/2 SD SEC TH S 3874.72 FT ALG W LI SD E 1/2 W 1/2 TH N 61 DEG 16 MIN 00 SECONDS E 375.96 FT TO E LI W 1/2 W 1/2 E 1/2 W 1/2 SD SEC TH N 3697.59 FT TH W 331.2 FT M/L TO POB 6.2 AC M/L

cc. Howard County, Texas assigned property id number R000046408, with the following legal description:

Acres 18.380, SC 36 BK 32 1N 009.01 ACQ 031306 BLK/TRACT 32 1N 18.38 ACRES

dd. Howard County, Texas assigned property id number R000046407, with the following legal description:

Acres 608.680, SC 36 BK 32 1N 009 ACQ 031306 BLK/TRACT 32 1N 608.68 ACRES

ee. Salt Lake County, Utah property with the address of 858 W. Clover Meadow Drive, Salt Lake City, UT 84123, with the following legal description:

LOT 112, MISTY MEADOWS SUBDIVISION NO. 2, ACCORDING TO THE OFFICIAL PLAT THEREOF, RECORDED IN THE OFFICE OF THE COUNTY RECORDER, COUNTY OF SALT LAKE, STATE OF UTAH.

21. Upon receiving actual notice of this Order by personal service, electronic service, or otherwise, all persons other than law enforcement officials acting within the course and scope of their official duties, are prohibited (without the express written permission of the Receiver) from: (a) entering such premises; (b) removing anything from such premises; or (c) destroying, concealing or erasing anything on such premises.

22. To execute the express and implied terms of this Order, the Receiver is authorized to change locks to the premises described above. The Receiver shall have exclusive control of the keys. The Receiver is also authorized to implement surveillance or other security measures to ensure that the terms of this Order are enforced. The Receivership Defendants, or any other person acting or purporting to act on their behalf, are ordered not to change the locks in any manner, nor to have duplicate keys made, nor shall they have keys to these properties in their possession during the term of the receivership. The Receivership Defendants shall not otherwise

interfere with the surveillance or security measures put in place by the Receiver on the premises described above.

F. Duties of Receivership Defendants, subsidiaries, and affiliated parties to provide information and assist the Receiver.

23. The Receivership Defendants, their subsidiaries, any affiliated entities, and any affiliated individuals (including spouses and other family members) shall cooperate with and assist the Receiver in the performance of his duties and obligations. As such, they must respond promptly and truthfully to all requests for information and documents from the Receiver.

24. The Receivership Defendants and the past and present officers, directors, agents, managers, general and limited partners, trustees, attorneys, transfer agents, website and electronic mail administrators, database administrators, accountants, and employees of the Entity Receivership Defendants, as well as those acting in their place, are hereby ordered and directed to preserve and turn over to the Receiver forthwith all paper and electronic information of, or relating to, the Receivership Defendants or Receivership Property; such information shall include, but is not limited to: books, records, documents, accounts, stock certificates, intellectual property records, evidence of intellectual property rights, computer and electronic records, and all other instruments and papers. If these documents and records are no longer within their control, they must provide information to the Receiver identifying the records, the persons in control of the records, and efforts undertaken to recover the records.

25. Within 30 days of the entry of this Order, the Receivership Defendants shall file with the Court and serve upon the Receiver and counsel for the United States, a sworn statement, listing: (a) the identity, location, and estimated value of all Receivership Property; (b) all employees (and job titles thereof), other personnel, attorneys, accountants, and any other agents or contractors of the Entity Receivership Defendants; (c) the names, addresses, and amounts of

claims of all known creditors of the Receivership Defendants; (d) the existence of and information about all insurance policies owned by, issued to, or obtained by any of the Receivership Defendants or for which a Receivership Defendant is the beneficiary; (e) the password for all computers, electronic devices, software programs, online financial accounts, websites, social media accounts, cloud storage, servers, and any other book or record or account of the Receivership Defendants that is accessible by password; (f) the status of any pending litigation to which any of the Receivership Defendants are involved, other than this instant case, including the names of the parties, the names of attorneys who have represented the Receivership Defendants, and the location of any records relating to the litigation which records are not under the control of Receivership Defendants; and (g) a financial statement setting forth the identity, value, and location of all assets of each Receivership Defendant, including assets held outside the territory of the United States.

26. Within 60 days of the entry of this Order, the Receivership Defendants shall file with the Court and serve upon the Receiver and counsel for the United States a sworn statement and accounting, with complete documentation, covering the period from January 1, 2005, to the present:

a. Of all Receivership Property, wherever located, held by or in the name of the Receivership Defendants, or in which any of them, directly or indirectly, has or had any beneficial interest, or over which any of them maintained or maintains or exercised or exercises control, including, but not limited to: (i) all securities, investments, funds, digital currencies, real estate, vehicles, aircraft, watercraft, recreational vehicles, jewelry and other assets, stating the location of each; (ii) all patents and other intellectual property, including documents of the grants of intellectual property, all documents used in

support of the applications, all models or samples of products that are the subject of intellectual property grants, and any documents showing the assignment, sale, or licensing of any intellectual property; and (iii) any and all accounts, including all funds held in such accounts, with any bank, brokerage, or other financial institution, including the account statements from each bank, brokerage, or other financial institution.

b. Identifying every safe deposit box, commercial mail box, business office, storage facility, or other building or facility belonging to, for the use or benefit of, controlled by, or titled in the name of any Receivership Defendant, or subject to access by any Receivership Defendant or other person subject to the Asset Freeze in Section A of this Order.

c. Identifying all credit, bank, charge, debit, stored-value, or other deferred payment card issued to or used by each Receivership Defendant including, but not limited to, the issuing institution, the card or account numbers, all persons or entities to which a card was issued or with authority to use a card, the balance of each account or card as of the most recent billing statement, and all statements for the last twelve months.

d. Identifying for the Entity Receivership Defendants: (i) the names, contact information, and number of shares for all shareholders as of November 23, 2015, and all purchases and sales of stock, including common and preferred shares, since November 23, 2015, which information shall include identification of the buyers and sellers, the number of shares transferred, the dates of the transfers, and the value of the transfers; and (ii) the names and contact information for transfer agents, market makers, attorneys, and accountants who provided services to IAS relating to its status as an issuer or publicly-held company.

e. Of all assets received by any of the Receivership Defendants from any person or entity, including the value, location, and disposition of any assets so received.

f. Of all funds received by the Receivership Defendants, and each of them, in any way related, directly or indirectly, to the conduct alleged in the United States' Complaint in this case. The submission must clearly identify, among other things, all purchases of solar lenses or alternative energy systems or other products sold by Receivership Defendants, the dates and amounts of the purchases, and the current location of funds received from the sales.

g. Of all expenditures exceeding $1,000 made by any of them, including those made on their behalf by any person or entity.

h. Of all transfers of assets by them, including a description or identification of: (i) the assets; (ii) the transferees of the assets; (iii) the date of the transfers; (iv) the amount or value of the assets transferred; (v) a description of any goods or services received in exchange for the assets, including the value of any goods or services received; and, (vi) to the best of their knowledge, the current location of the assets.

27. Within 30 days of the entry of this Order, the Receivership Defendants shall provide to the Receiver and counsel for the United States copies of the Receivership Defendants' federal income tax returns for the fiscal or calendar years beginning with January 1, 2010, with all relevant and necessary underlying documentation.

28. Johnson and Shepard, as well as all past and present officers, directors, agents, attorneys, managers, shareholders, employees, accountants, debtors, creditors, managers, and general and limited partners of the Entity Receivership Defendants, and other appropriate persons or entities, including the family members of Johnson and Shepard, shall promptly

answer under oath to the Receiver all questions which the Receiver may put to them and produce all documents as required by the Receiver regarding the business of the Receivership Defendants or any other matter relevant to the operation or administration of the receivership or collection of funds due to the Receivership Defendants. If the Receiver deems it necessary to require the appearance of the aforementioned persons or entities, then the Receiver shall make his discovery requests in accordance with the Federal Rules of Civil Procedure.

29. Counsel or other retained parties who prepared or submitted intellectual property applications for Johnson, RaPower-3, or IAS shall provide to the Receiver all information requested by the Receiver relating to the applications, intellectual property rights granted, transfer of intellectual property rights, and information regarding the present holders or owners of those rights.

G. Repatriation of foreign assets and documents.

30. The Receivership Defendants are hereby ordered to forthwith transfer to the Receiver all Receivership Property outside the United States held jointly or singly or under their direct or indirect ownership or control, in whole or in part, with such Receivership Property transferred to the possession of the Receiver or to one or more accounts as may be determined by the Receiver.

31. The Receivership Defendants shall provide to the Receiver full and complete access to records of their accounts or assets held by any financial institutions outside the United States and shall deliver to the Receiver and counsel for the United States such consents to release financial records or assets as may be reasonably requested by the Receiver or the United States.

32. In furtherance of the foregoing repatriation provisions, the Receivership Defendants, their successors and assigns, and their officers, agents, servants, employees, affiliates, and attorneys, and all persons in active concert or participation with them who receive

actual notice of this Order by personal service or otherwise, are hereby enjoined from taking any action, directly or indirectly, which may result in the encumbrance or dissipation of foreign Receivership Property, or in the hindrance of the repatriation required by this Order, including but not limited to:

a. Sending any statement, letter, fax, e-mail, or wire transmission, or telephoning or engaging in any act, directly or indirectly, that results in a determination by a foreign trustee or other entity that a "duress" event has occurred under the terms of foreign trust agreement, until such time that all Receivership Property has been fully repatriated in accordance with this Order; and

b. Notifying any trustee, trust protector, or other agent of any foreign company, trust, or similar entity of either the existence of this Order, or of the fact that repatriation is required pursuant to court order, until such time that all Receivership Property has been fully repatriated in accordance with this Order.

33. In the Receiver's sole discretion, after consultation with counsel for the United States, the Receiver may take such steps as are necessary or appropriate to repatriate to the territory of the United States, all Receivership Property that is located outside the territory of the United States and to prevent any transfer, disposition, or dissipation whatsoever of any Receivership Property located outside the United States.

34. Within 30 days of the date of this Order, the Receivership Defendants shall file with the Court and serve on the Receiver and counsel for the United States a sworn statement: (a) certifying their compliance with the repatriating provisions of this Order; (b) describing actions they have taken to repatriate assets to territory of the United States; (c) describing any

assets that remain outside the jurisdiction of the United States; and (d) explaining reasons any assets outside the jurisdiction of the United States have not been repatriated.

H. Cooperation with Receiver; injunction against interference.

35. The Receivership Defendants and all persons receiving notice of this Order by personal service, facsimile, electronic transmission, or otherwise, are hereby restrained and enjoined from directly or indirectly taking any action or causing any action to be taken, without the express written agreement of the Receiver, which would interfere with or prevent the Receiver from performing his duties, including conduct that would or might:

a. Interfere with the Receiver's efforts to take control, possession, or management of any Receivership Property. Such prohibited actions include, but are not limited to, using self-help or executing or issuing (or causing the execution or issuance of) any court attachment, subpoena, replevin, execution, or other process for the purpose of impounding or taking possession of or interfering with or creating or enforcing a lien upon any Receivership Property.

b. Hinder, obstruct, or otherwise interfere with the Receiver in the performance of his duties. Such prohibited actions include, but are not limited to, concealing, destroying or altering records or information.

c. Dissipate or otherwise diminish the value of any Receivership Property. Such prohibited actions include, but are not limited to, releasing claims or disposing, transferring, exchanging, assigning or in any way conveying any Receivership Property; enforcing judgments, assessments, or claims against any Receivership Property or any Receivership Defendant; and attempting to modify, cancel, terminate, call, extinguish, revoke, or accelerate the due date of any lease, loan, mortgage, indebtedness, security

agreement, or other agreement executed by any Receivership Defendant or which otherwise affects any Receivership Property.

d. Interfere with or harass the Receiver or interfere in any manner with the exclusive jurisdiction of this Court over the receivership estate.

36. All banks, brokerage firms, financial institutions, and other persons or entities which have possession, custody, or control of any assets or funds held by, or in the name of, or for the benefit of, directly or indirectly, the Receivership Defendants that receive actual notice of this Order by personal service, electronic transmission, or otherwise shall:

a. Not liquidate, transfer, sell, convey or otherwise transfer any assets, securities, funds, or accounts in the name of or for the benefit of the Receivership Defendants except upon written instructions from the Receiver.

b. Not exercise any form of setoff, alleged setoff, lien, or any form of self-help whatsoever, or refuse to transfer any funds or assets to the Receiver's control without the permission of this Court.

c. Deny Receivership Defendants access to any safe deposit box without the written consent of the Receiver.

d. Within five business days of receipt of notice of this Order, file with the Court and serve on the Receiver and counsel for the United States a certified statement setting forth, with respect to each such account or other asset, a balance in the account or description of the assets as of the close of business on the date of receipt of the notice.

e. Cooperate expeditiously in providing information and transferring funds, assets, and accounts to the Receiver or at the direction of the Receiver.

37. All persons and entities owing any obligation, debt, or distribution to any Receivership Defendant shall, until further order of this Court, pay all such obligations to the Receiver, in accordance with the terms thereof and the Receiver's receipt of such payments shall have the same force and effect as if the Receivership Defendant had received such payment. Prior to depositing or cashing any payments made to the Receiver, the Receiver shall investigate whether the payor is a person or entity who purchased a solar lens or alternative energy system or other product from Receivership Defendants. If so, the Receiver shall return the payment along with a copy of the FFCL.[9]

38. Subject to payment for services provided, any entity furnishing water, electric, telephone, sewage, or garbage or trash removal services to the Receivership Defendants shall maintain such service and transfer any such accounts to the Receiver unless instructed to the contrary by the Receiver.

39. The Receiver shall not be responsible for payment or performance of any obligations of the Receivership Defendants that were incurred by or for the benefit of, the Receivership Defendants prior to the date of this Order, including but not limited to any agreement with third-party vendors, landlords, brokers, purchasers, or other contracting parties.

40. Upon the request of the Receiver, the United States Marshal Service, in any judicial district, is hereby ordered to assist the Receiver in carrying out his duties to take possession, custody, and control of, or identify the location of, any assets, records, or other materials belonging to the receivership estate.

41. All attorneys, accountants, and auditors who have represented any of the Entity Receivership Defendants shall cooperate fully with the Receiver in providing the Receiver the

[9] *Supra* note 2.

contents of their files relating to those representations. Any claim of attorney-client or accountant-client privilege shall be made on motion and include a privilege log specifically identifying each document or item withheld from production and provide sufficient foundational information to allow an individualized assessment as to the applicability of the claimed privilege. The privilege log should include a document's date of creation, author, title or caption, addressee, recipients, and general nature or purpose for creation.

42. The Receiver shall promptly notify the Court and counsel for the United States of any failure or apparent failure of any person or entity to comply in any way with the terms of this Order, the Preservation Order,[10] the Memorandum Decision,[11] or the FFCL.[12]

43. In the event any person fails to deliver or transfer any Receivership Property or otherwise fails to comply with any provision of Section H of this Order, the Receiver may file ex parte an "Affidavit of Non-Compliance" regarding the failure, provided, however, if such an affidavit is directed to a Receivership Defendant, such Receivership Defendant shall be entitled to ten days' notice thereof (unless shortened by an order of this Court) and an opportunity to be heard. Except as set forth above, upon the filing of the affidavit, the Court may authorize, without additional process or demand, writs of possession or sequestration or other equitable writs requested by the Receiver. The writs shall authorize and direct the United States Marshal or any federal or state law enforcement officer to seize the Receivership Property, document, or other thing, and to deliver it to the Receiver.

[10] *Supra* note 8.

[11] *Supra* note 1.

[12] *Supra* note 2.

I. Stay of litigation.

44. The proceedings described below ("Ancillary Proceedings")—excluding the instant proceeding, all appeals related to this proceeding, and all policy or regulatory actions and actions of the United States related to the above-captioned action—are stayed until further order of this Court: All civil legal proceedings of any nature, including but not limited to, bankruptcy proceedings, arbitration proceedings, foreclosure actions, default proceedings, or other actions of any nature involving:

a. the Receiver in his capacity as Receiver;

b. any Receivership Property, wherever located;

c. any of the Receivership Defendants, including subsidiaries, partnerships, or joint ventures; or

d. any of the Receivership Defendants' past or present officers, directors, managers, agents, or general or limited partners sued for, or in connection with, any action taken by them while acting in such capacity—whether as plaintiff, defendant, third-party plaintiff, third-party defendant, or otherwise.

45. The Receiver shall file a notice of stay in any and all currently pending litigation (excluding this action) and in any and all actions that may be filed against Receivership Defendants while the receivership is ongoing.

46. The parties to any and all Ancillary Proceedings are enjoined from commencing or continuing any such legal proceeding, or from taking any action, in connection with any such proceeding, including, but not limited to, the issuance or employment of process.

47. All Ancillary Proceedings are stayed in their entirety, and all courts having any jurisdiction thereof are enjoined from taking or permitting any action until further order of this Court. Further, as to a cause of action accrued or accruing in favor of one or more of the

Receivership Defendants against a third person or party, any applicable statute of limitation is tolled during the period in which the injunction against commencement of legal proceedings is in effect as to that cause of action.

48. Upon a determination by the Receiver that action should be taken in any of the Ancillary Proceedings, the Receiver shall seek a lift of stay of litigation from this Court prior to taking any action in the Ancillary Proceeding.

J. Notice to third parties.

49. The Receiver shall promptly give notice of his appointment to all known officers, directors, agents, employees, shareholders, creditors, debtors, managers, and general and limited partners of the Receivership Defendants as the Receiver deems necessary or advisable to effectuate the operation of the Receivership.

50. In furtherance of his responsibilities, the Receiver is authorized to communicate with and serve this Order upon any person, entity, or government office that he deems appropriate to inform of the status of this matter or the financial condition of the receivership estate. All government offices which maintain public files of securities interests in real and personal property shall, consistent with such office's applicable procedures, record this Order upon the request of the Receiver or counsel for the United States.

51. The Receiver is authorized to instruct the United States Postmaster to hold and reroute mail which is related, directly or indirectly, to the business, operations, or activities of any of the Receivership Defendants (the "Receiver's Mail"), including all mail addressed to, or for the benefit of, the Receivership Defendants. The Postmaster shall not comply with, and shall immediately report to the Receiver, any change of address or other instruction given by anyone other than the Receiver concerning the Receiver's Mail. The Receivership Defendants shall not open any of the Receiver's Mail and shall immediately turn over such mail, regardless of when

received, to the Receiver. All personal mail of Johnson or Shepard, any mail appearing to contain privileged information, and any mail not falling within the mandate of the Receiver, shall be released to the named address by the Receiver. The foregoing instructions shall apply to any proprietor, whether individual or entity, of any private mail box, depository, business, service, or mail courier or delivery service hired, rented, or used by the Receivership Defendants. The Receivership Defendants shall not open a new mailbox or take any steps, or make any arrangements, to receive mail in contravention of this Order, whether through the U.S. mail, a private mail depository, or courier service.

K. Managing assets.

52. The Receiver shall establish one or more custodial accounts at a federally insured bank to receive and hold all cash equivalent Receivership Property (the "Receivership Funds").

53. The Receiver's deposit accounts shall identify the account as a receivership account by using a label on the account such as "Wayne Klein, Receiver for RaPower-3" or "Receivership Estate of RaPower-3."

54. Except as otherwise provided in this Order and specifically as provided in Section L of this Order, the Receiver may, after consultation with counsel for the United States and without further order of this Court, transfer, compromise, sell, or otherwise dispose of any Receivership Property, other than real estate, in the ordinary course of business on terms and in the manner the Receiver deems most beneficial to the receivership estate and with due regard for the realization of the true and proper value of such Receivership Property.

55. Subject to Paragraph 56 of this Order, the Receiver is authorized to locate, list for sale or lease, engage a broker to sell or lease, cause the sale or lease, and take all necessary and reasonable actions to cause the sale or lease of all real property in the receivership estate, either at public or private sale, on terms and in the manner the Receiver deems most beneficial to the

receivership estate and with due regard to the realization of the true and proper value or such real property.

56. Upon further order of this Court, in accordance with such procedures as may be required by this Court and additional authority, such as 28 U.S.C. §§ 2001 and 2002, the Receiver is authorized to sell and transfer clear title to all real property in the receivership estate.

57. The Receiver is authorized to take all actions to manage, maintain, and wind down business operations of the receivership estate, including making legally-required payments to the United States, creditors, employees, and agents of the receivership estate and communicating with vendors, investors, government and regulatory authorities, and others as appropriate.

58. The Receiver shall take all necessary steps to enable the Receivership Funds to obtain and maintain the status of a taxable "Settlement Fund," within the meaning of Section 468B of the Internal Revenue Code and or the regulations, when applicable, whether proposed, temporary, or final, or pronouncements thereunder, including the filing of the elections and statements contemplated by those provisions. The Receiver shall be designated the administrator of the Settlement Fund, pursuant to Treas. Reg. § 1.468B-2(k)(3)(i), and shall satisfy the administrative requirements imposed by Treas. Reg. § 1.468B-2, including, but not limited to: (a) obtaining a taxpayer identification number; (b) timely filing applicable federal, state, and local tax returns and paying taxes reported thereon; and (c) satisfying any information, reporting, or withholding requirements imposed on distributions from the Settlement Fund. The Receiver shall cause the Settlement Fund to pay taxes in a manner consistent with treatment of the Settlement Fund as a "Qualified Settlement Fund." The Receivership Defendants shall

cooperate with the Receiver in fulfilling the Settlement Fund's obligations under Treas. Reg. § 1.468B-2.

L. Investigation and prosecution of claims.

59. Subject to the requirement that leave of this Court is required to commence or resume litigation, the Receiver is authorized, empowered, and directed to investigate, prosecute, defend, intervene in, or otherwise participate in, compromise, and adjust actions in any state, federal, or foreign court proceeding of any kind as may in his discretion, and after consultation with counsel for the United States, be advisable or proper to recover or conserve Receivership Property.

60. Subject to his obligation to expend receivership funds in a reasonable and cost-effective manner, the Receiver is authorized, empowered, and directed to investigate the manner in which the financial and business affairs of the Receivership Defendants were conducted and, after obtaining leave of this Court, to institute such actions and legal proceedings for the benefit, and on behalf, of the receivership estates as the Receiver deems necessary and appropriate. The Receiver may seek, among other legal and equitable relief, the imposition of constructive trusts, disgorgement of profits, asset turnover, avoidance of fraudulent transfers, rescission, restitution, collection of debts, and such other relief from this Court as may be necessary to enforce this Order. Where appropriate, the Receiver should provide prior notice to counsel for the United States before commencing investigations or actions.

61. The Receiver hereby holds, and is therefore empowered, on seven-days notice, to waive, all privileges, including the attorney-client privilege and accountant-client privilege, held by all Entity Receivership Defendants. The Receivership Defendants' motion opposing a waiver must be filed within that seven-day period.

62. The Receiver has a continuing duty to ensure there are no conflicts of interest between the Receiver, his Retained Personnel (as defined below), and the receivership estate.

M. Bankruptcy filing.

63. The Receiver may seek authorization from this Court to file voluntary petitions for relief under Title 11 of the United States Code (the "Bankruptcy Code") for the Receivership Defendants. If a Receivership Entity is placed in bankruptcy proceedings, the Receiver may become, and may be empowered to operate the receivership estate as, a debtor in possession. In such a situation, the Receiver shall have all the powers and duties as provided a debtor in possession under the Bankruptcy Code to the exclusion of any other person or entity.

64. The Stay of Litigation provisions, in Section I of this Order, bar any person or entity other than the Receiver from placing any of the Receivership Defendants in bankruptcy proceedings.

65. The Receiver is placed on notice that RaPower-3's most recent bankruptcy filing (D. Utah Case No. 2:18-cv-00608-DN) was dismissed as a bad faith filing, and that RaPower-3 is barred from filing a bankruptcy petition for 180 days following the dismissal of the petition in that case.[13] To the extent that the Receiver determines a bankruptcy petition is appropriate with respect to RaPower-3, the Receiver shall not file a bankruptcy petition for RaPower-3 until after 180 days of the dismissal of the prior bankruptcy proceeding or if the United States has no objection and the Receiver receives permission from this Court.

N. Administration of the receivership estate.

66. Until further order of this Court, the Receiver shall not be required to post bond or give undertaking of any type in connection with his fiduciary obligations in this matter.

[13] *See* D. Utah Case No. 2:18-cv-00608-DN, Judgment in a Civil Case, doc. no. 11, filed September 4, 2018; *id.*, Order Dismissing the Case, doc. no. 6, filed August 22, 2018.

67. The Receiver is authorized to solicit persons and entities ("Retained Personnel") to assist him in carrying out the duties and responsibilities in this Order. The Receiver shall first obtain Court approval before retaining counsel and accountants for the receivership estate.

68. The Receiver and Retained Personnel, acting within the scope of such agency, are entitled to rely on all outstanding rules of law and orders of this Court and shall not be liable to anyone for their own good faith compliance with any order, rule, law, judgment, or decree. In no event shall the Receiver or Retained Personnel be liable to anyone for their good faith compliance with their duties and responsibilities as Receiver or Retained Personnel nor shall the Receiver or Retained Personnel be liable to anyone for actions taken or omitted by them except upon a finding by this Court that they acted or failed to act as a result of malfeasance, bad faith, gross negligence, or in reckless disregard of their duties.

69. Nothing contained in this Order, nor the grant or exercise of any powers provided for herein by the Receiver shall cause the Receiver to be considered a past or present owner, operator, or other potentially responsible or liable party under any provision of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"),[14] or the Georgia Hazardous Site Response Act ("HSRA"),[15] or to incur liability based on ownership or operation of the Receivership Property under any other statutory, regulatory, common law, or strict liability theory. Furthermore, to the extent hazardous substances, wastes, or constituents are known or discovered to be present on Receivership Property, the Receiver shall not be considered to be in any direct or indirect contractual relationship with any party responsible for such substances, wastes, or constituents under CERCLA or HSRA, and shall instead be

[14] 42 U.S.C. § 9601 et seq.

[15] GA. CODE § 12-8-90 et seq.

considered to be acting solely in a "fiduciary capacity" with respect to the Receivership Property in accordance with § 107(n) of CERCLA[16] and § 12-8-92(7) of HSRA.[17]

70. At the request of counsel for the United States, the Receiver shall provide counsel for the United States with any documentation or information requested that is reasonably related to the United States' duties in connection with this section of the receivership estate or that may be necessary to meet its reporting requirements or that is otherwise necessary to further the mission of the United States Department of Justice. The Receiver may cooperate with other government agencies investigating the conduct described in the United States' complaint in this case and share information he has learned or documents recovered through his work as Receiver.

71. The Receiver need not obtain Court approval prior to the disbursement of receivership funds for expenses in the ordinary course of the administration and operation of the receivership estate. Further, prior court approval is not required for payments of applicable federal, state, or local taxes.

72. The Receiver and Retained Personnel are entitled to reasonable compensation and expense reimbursement which shall be paid from the receivership estate upon approval of a filed motion for the payment of fees and expenses. The parties shall have 14 days to file a response to any such motion.

73. Unless otherwise ordered, within 45 days after the end of each calendar quarter, the Receiver and Retained Personnel shall apply by motion to the Court for compensation and expense reimbursement from the receivership estate (the "Quarterly Fee Motions"). At least 30 days prior to the filing of each Quarterly Fee Motion with the Court, the Receiver shall serve

[16] 42 U.S.C. § 9607(n).

[17] GA. CODE § 12-8-92(7).

upon counsel for the United States a complete copy of the proposed motion, together with all exhibits and relevant billing information.

74. All Quarterly Fee Motions will be interim and will be subject to cost benefit and final review at the close of the receivership. At the close of the receivership, the Receiver shall file a final fee motion, describing in detail the costs and benefits associated with all litigation and other actions pursued by the Receiver during the course of the receivership.

75. Each Quarterly Fee Motion shall:

a. Comply with the terms of any billing instructions agreed to by the Receiver.

b. Include a certification by the applicant that the certifying professional has read the motion and that to the best of the applicant's knowledge, information, and belief formed after reasonable inquiry, the motion and all fees and expenses therein are true and accurate.

c. Contain representations that: (i) the fees and expenses included therein were incurred in the best interests of the receivership estate; and (ii) the Receiver has not entered into any agreement, written or oral, express or implied, with any person or entity concerning the amount of compensation paid or to be paid from the receivership estate, or any sharing thereof.

d. Attach all exhibits and relevant billing information.

76. This Court shall retain jurisdiction over any action filed against the Receiver or Retained Personnel based on acts or omissions committed in their representative capacities.

77. If the Receiver decides to resign, the Receiver shall first give written notice to the Court and counsel for the United States of his intention, and the resignation shall not be effective

until the Court appoints a successor. The Receiver shall then follow such instructions as the Court may provide.

O. Living expenses for Johnson and Shepard; use of receivership assets.

78. Within 30 days of the entry of this Order, the Receiver shall investigate the monthly income and living expenses of Johnson and Shepard and make a recommendation to the Court regarding whether any monthly living expenses should be paid out of the Receivership Property to Johnson or Shepard. The Receiver shall take into account whether Johnson or Shepard have any Non-Receivership Property or access to any assets or property from sources other than the Receivership Property or from assets that the Receiver decides to abandon or otherwise dispose of in the course of the receivership. The Receiver shall not pay any monthly living expenses to Johnson or Shepard in any month where there is insufficient funds in the Receivership bank accounts to pay the living expenses or in any month where Johnson or Shepard is not in substantial, good faith compliance with orders of this Court.

79. Johnson or Shepard may make application to the Receiver to use Receivership Property. Such application should include an explanation of the reasons for the request. The Receiver may consult with counsel for the United States before deciding whether to grant or deny the application. If the Receiver grants the request, the Receiver may condition the granting of the request on a reduction in the amount of monthly living expenses to be paid to the Receivership Defendant and on a finding that the Receivership Defendant is in substantial, good faith compliance with orders of this Court.

80. If Johnson or Shepard disagree with a decision by the Receiver regarding applications to use Receivership Property or payment of monthly living expenses, they may file a motion with the Court requesting an order directing the Receiver to make payments or allow use of the Receivership Property.

81. No funds belonging to the receivership estate, other than the monthly living expenses, if any, paid to Johnson and Shepard, may be used to pay legal fees for any Receivership Defendant without approval of the Receiver or order of the Court.

82. The Receiver may, in his discretion, permit Johnson and Shepard to directly withdraw the monthly living expenses from a designated bank account and require Johnson and Shepard to account for the withdrawal on a monthly basis in a form determined by the Receiver.

P. Reports and recommendations.

83. The Receiver is authorized, empowered, and directed to develop a plan for the fair, reasonable, and efficient recovery and liquidation of all remaining, recovered, and recoverable Receivership Property.

84. Within 60 days from the entry of this Order, the Receiver shall file with the Court an accounting of the receivership estate reflecting (to the best of the Receiver's knowledge) the existence, value, and location of all Receivership Property, and of the extent of liabilities, both those claimed to exist by others and those the Receiver believes to be legal obligations of the receivership estate (the "Initial Accounting"). The Receiver shall also detail his efforts in locating Receivership Property and what, if any, additional efforts need to be undertaken to provide a full accounting of the receivership estate to this Court.

85. As part of the Initial Accounting, the Receiver is directed to investigate the publicly-traded status of IAS and provide a recommendation to the Court on whether IAS should remain a publicly traded company or should otherwise be liquidated and dissolved. The

Receiver's Initial Accounting should describe in detail his findings and recommendations and include the following:

a. A summary of IAS's reporting and disclosures obligations, whether by the SEC or any other federal, state, or local regulatory agency, and whether IAS is current in those obligations.

b. An estimate of how long it will take the Receiver to conduct an investigation, gather the necessary information, and file any reports or other information required by the reporting and disclosure obligations referenced in Paragraph 85(a) of this Order.

c. A summary of the trading of IAS stock from the initiation of this lawsuit on November 23, 2015, specifically outlining the trading conducted by Johnson, Shepard, their family members, and other insiders.

d. A summary of the shares of stock currently owned by Johnson, Shepard, and their family members, whether directly or indirectly, including through spouses and the subsidiary and affiliated entities described in Paragraph 2 of this Order.

e. A determination by the Receiver as to whether trading of IAS stock should be suspended. The Receiver is authorized to request the appropriate entity to suspend the trading of IAS stock prior to filing the Initial Accounting, and if the Receiver does so, the Receiver shall include the details of that request in the Initial Accounting.

f. The Receiver's plan for the future of IAS, which may include continuing any operations of the business unrelated to the solar energy scheme or liquidating the business. If the Receiver determines that there are no operations unrelated to the solar

energy scheme, then the Receiver shall propose a liquidation plan rather than sell the shell entity and its "public company" status.

86. Within a reasonable time after the end of each calendar quarter, but no later than 30 days after the end of each calendar quarter, the Receiver shall file a "Quarterly Status Report." The Quarterly Status Report shall, for the prior calendar quarter: (a) describe significant developments in the receivership estate during the quarter; (b) describe in summary form the assets recovered and disposed of during the quarter; (c) describe the status of litigation initiated, settled, or in progress during the quarter; (d) summarize receipts and disbursements during the quarter and the general financial operations and status of the receivership estate; (e) describe the extent to which the Receivership Defendants, or others subject to the requirements of this Order, have failed to cooperate with or comply with demands from the Receiver; and (f) describe the Receiver's plans for moving forward to accomplish the objectives of the receivership.

87. At the close of the receivership, the Receiver shall submit a final accounting in connection with a motion to close the receivership estate as well as the Receiver's final application for compensation and expense reimbursement.

Q. Claims process and distributions.

88. If it appears to the Receiver that proceeds from liquidation of the receivership estate will exceed the costs of administering the receivership estate and the amount necessary to satisfy the obligation to the United States, the Receiver may propose to the Court a claims process to be administered by the Receiver. The United States shall not be required to submit a claim as part of any claims process proposed to the Court.

89. After payment of allowed costs of administering the receivership estate, the Receiver shall distribute proceeds from the liquidation of the receivership estate as follows:

a. FIRST PRIORITY: The United States Department of Justice, for its costs that will be awarded under 28 U.S.C. § 1920 and any other costs this Court may award. This payment shall be paid in full before any distributions to lower priority claims.

b. SECOND PRIORITY: To the United States, in the amount of $14,207,517. This payment shall be made in full before any distributions to lower priority claims.

c. THIRD PRIORITY:

i. To a Receivership Defendants' customer who files a claim with the Receiver with sufficient evidence to show:

1. The customer's investment or payments to Receivership Defendants for "solar lenses," "alternative energy systems," or other products sold by Receivership Defendants;

2. All payments or credits from Receivership Defendants to the customer, including rental payments, bonus payments, salaries, distributions, commissions, and overrides or similar payments due to multilevel marketing;

3. A copy of any filed tax return on which the customer claimed a tax deduction or tax credit relating to Receivership Defendants' "solar lenses" or "alternative energy systems"; and

4. The resolution of all the customer's issues with the Internal Revenue Service regarding any tax deduction or tax credit relating to or arising from "solar lenses" or "alternative energy systems" or other

products purchased from Receivership Defendants. (If a customer does not have an outstanding assessment for taxes, interest, or penalties relating to Receivership Defendants' "solar lenses" or "alternative energy systems," or has not been required to pay back taxes, interest, or penalties because the tax deduction or tax credits relating to Receivership Defendants' "solar lenses" or "alternative energy systems" have not been audited or disallowed by the Internal Revenue Service, then the customer shall not be entitled to compensation as a "Third Priority" claimant. If a customer has not yet resolved any outstanding tax issues relating to Receivership Defendants' "solar lenses" or "alternative energy systems" with the Internal Revenue Service, then the customer can file a claim with the Receiver and request assistance in resolving its outstanding tax issues. For any customer that requests assistance, the Receiver shall forward a copy of all documents submitted by the customer to a designated representative of the Internal Revenue Service with a copy to counsel for the United States. If the customer can resolve its issues with the Internal Revenue Service prior to the date the Receiver distributes any assets or monies to the Third Priority claimants, the customer shall be deemed a Third Priority claimant and may be entitled to payments under this subsection.)

ii. The Receiver is authorized to set a deadline for claims to be filed, but that deadline shall be no later than nine months after the entry of this Order and the appointment of the Receiver. The Receiver is authorized to request additional information from any customer or deem a customer's submission to be

insufficient for the purpose of determining whether the customer is a Third Priority claimant and entitled to payment under this subsection. Before any funds to customers determined to be Third Priority claimants are paid, the Receiver shall file a report with the Court showing the list of customers who filed claims with the Receiver, the Receiver's determination as to whether those customers qualify as Third Priority claimants, and the proposed amount to be paid to each customer. The parties shall have 14 days to respond or object to the payments the Receiver intends to make. Payments to claimants shall be made on a pro rata basis of the amount paid by the claimant to Receivership Defendants less all amounts received by the claimant from Receivership Defendants.

d. FOURTH PRIORITY: To the extent that there are any remaining assets or funds in the receivership estate that can be liquidated or distributed, the remainder shall be paid to the United States until or unless the total payments to First, Second, Third, and Fourth Priority claimants reaches $50,025,480.

e. FIFTH PRIORITY: The Receiver is authorized to solicit claims from other persons who may be owed money by any Receivership Defendant, including any customers who do not otherwise qualify as Third Priority claimants. To the extent that there are any remaining assets or funds in the receivership estate that can be liquidated or distributed after the payment of expenses of administering the receivership estate and the First through Fourth Priority claimants, the Receiver has discretion to determine which, if any, additional claims should be paid from the remainder. The Receiver is authorized to solicit claims from noncustomers, including utility providers, suppliers, contractors, service providers, and other similar persons and entities within the same nine months that

it solicits claims from customers. As part of the recommendation the Receiver makes to the Court with respect to the Third Priority claimants, the Receiver shall also provide a recommendation to the Court as to whether any claims solicited from what are considered Fifth Priority claimants should be paid prior to the Third and Fourth Priority claimants. The Receiver shall include in its recommendation the name of such Fifth Priority claimants, the relationship of each such claimant to the Receivership Defendants, and a brief explanation as to why its claim should be paid before the Third and Fourth Priority claimants. As described in Paragraph 89(c) of this Order, the parties shall have 14 days to respond or object to the Receiver's recommendation.

f. RESIDUAL RECEIVERSHIP ESTATE: To the extent that there are any remaining assets or funds in the receivership estate that can be liquidated or distributed after the payment of expenses of administering the receivership estate and the First through Fifth Priority claimants, the residual shall revert to Receivership Defendants.

90. The Receiver may coordinate and share information with counsel for the United States and the Internal Revenue Service in evaluating claims submitted and making recommendations to the Court on the allowance and payment of claims.

91. The Receiver is authorized to make distributions of available funds in the receivership estate to the United States of up to $14,207,517 without further order of this Court. The distributions need not be made in one lump sum payment but may be made over time as assets and funds become available for payment.

R. Miscellaneous provisions.

92. At the request of the Receiver, the Clerk of the Court is directed to provide certified copies of this Order or other orders of this Court to the Receiver at no cost to the Receiver.

93. If any persons subject to this Order fail to comply with the terms herein, the Receiver or counsel for the United States is permitted to initiate contempt proceedings.

94. The Receiver and his Retained Personnel shall keep time records to support their fee applications. Time records must set forth in reasonable detail an appropriate narrative description of the services rendered along with the time spent on those services. The time records should be kept in a manner that enables the Receiver and his Retained Personnel to track time spent on specific litigation matters or other tasks related to the administering of the Receivership.

95. The Receiver shall retain all records relating to the Receivership for a period of not less than three years after the Receivership has been closed. The Receiver shall provide copies of any records, information, or documents to counsel for the United States if necessary for counsel's record-keeping obligations or other statutory and regulatory responsibilities and duties.

96. The Receiver is authorized to request a modification of this Order from this Court during the life of the receivership if the Receiver determines that a modification is necessary for the proper administration of the receivership estate.

Signed November 1, 2018.

BY THE COURT:

David Nuffer
United States District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, v. RAPOWER-3, LLC, et al., Defendants.	**MEMORANDUM DECISION AND ORDER DENYING MOTION TO LIFT ASSET FREEZE AS TO SOLCO I AND XSUN ENERGY** Case No. 2:15-cv-00828-DN District Judge David Nuffer

Defendants RaPower-3 LLC, International Automated Systems Inc., LTB1 LLC, Gregory Shepard, and Neldon Johnson (collectively, "RaPower") filed a motion ("Motion")[1] under Fed. R. Civ. P. 59(e) to lift the asset-freeze orders[2] ("Asset Freeze") as to Solco LLC and XSun Energy LLC (collectively, "Solco") because they are not parties to this case and their assets were frozen without due process.[3] RaPower has made this due-process argument on at least two prior occasions.[4] On both occasions, it was rejected.[5] It is rejected again today.

[1] Motion to Lift Asset Freeze Order as to Solco I and XSun Energy ("Motion"), docket no. 509, filed November 16, 2018; *see* Errata to Motion to Lift Asset Freeze Order as to Solco I and XSun Energy, docket no. 512, filed November 20, 2018; United States' Opposition to Defendants' Motion to Lift the Asset Freeze Order as to Solco I and XSun Energy, docket no. 523, filed November 30, 2018; Receiver's Joinder in United States' Opposition to Motion to Lift Asset Freeze as to Solco I and XSun Energy, docket no. 525, filed November 30, 2018; Reply Memorandum in Support of Motion to Lift Asset Freeze Order as to Solco I and XSun Energy ("Reply"), docket no. 540, filed December 12, 2018.

[2] Memorandum Decision and Order Freezing Assets and to Appoint a Receiver, docket no. 444, filed August 22, 2018; Corrected Receivership Order, docket no. 491, filed November 1, 2018.

[3] RaPower acknowledges that "there is a close relationship between some of these Defendants and Solco I and XSun Energy." Reply, *supra* note 1, at 10.

[4] *See* Objection re: Findings of Fact and Conclusions of Law, at 16-19, docket no. 452, filed September 14, 2018; Defendants' Objection to Plaintiff's Proposed Receivership Order, at 1-6, docket no. 461, filed September 28, 2018.

[5] *See* Docket Text Order, docket no. 478, October 23, 2018; Findings of Fact and Conclusions of Law, docket no. 467, filed October 4, 2018; Corrected Receivership Order, docket no. 491, filed November 1, 2018.

At all relevant times, Solco has had notice of the Asset Freeze and an opportunity to be heard regarding it. Indeed, this is at least the third time that Solco has been heard regarding it.[4] And upon completion of the Receiver's investigation, Solco will have yet another opportunity to be heard about it. Accordingly, RaPower has failed to establish that the Asset Freeze should be modified on due-process grounds.

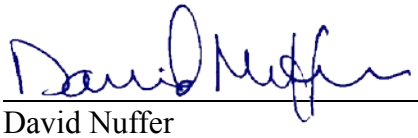
Furthermore, because RaPower and Solco have failed to show that the so-called "nonrefundable" retainer in the amount of $735,202.22, which is currently in Nelson Snuffer Dahle & Poulsen's trust account, is *not* property of the receivership estate, the full balance of that retainer will remain subject to the Asset Freeze at this time.

ORDER

THEREFORE, IT IS HEREBY ORDERED that the Motion[6] is DENIED without prejudice pending completion of the Receiver's investigation and report in accordance with the Corrected Receivership Order.[7]

Signed December 27, 2018.

BY THE COURT:



David Nuffer
United States District Judge

[6] Docket no. 509, filed November 16, 2018.

[7] Docket no. 491, filed November 1, 2018.

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1,LLC,R. GREGORY SHEPARD, NELDON JOHNSON and ROGER FREEBORN, Defendants,	)	Case No: 2:15-CV-828DN

BEFORE THE HONORABLE DAVID NUFFER

April 4, 2018

BENCH TRIAL

PAGES 476 - 721

Reported by:
KELLY BROWN HICKEN, RPR, RMR
801-521-7238

A P P E A R A N C E S

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DANIEL B. GARRIOTT
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I N D E X

EXHIBITS RECEIVED INTO EVIDENCE

A. Yes.
Q. What happened after that?
A. She drafted a letter.
Q. After she drafted the letter, did you do anything with it?
A. I probably reviewed it.
Q. Was it your typical practice to review each other's work in the fall of 2010?
A. Yes.
Q. And once you reviewed it, what happened?
A. To the best of my knowledge it was signed and sent to Mr. Johnson.
Q. Do you recall approximately when that went out?
A. October-November of 2010.
Q. Showing you, Mr. Anderson, and you can take a look in the binder, too, please, what's been marked as Plaintiff's Exhibit 570. Go ahead and take a look through that document in your binder, if you wouldn't mind and make sure you recognize it.
A. Okay.
(Time lapse.)
Q. BY MS. HEALY-GALLAGHER: Is Plaintiff's Exhibit 570 the letter that was sent out to Mr. Johnson that we've been discussing?
A. I believe so.

Q. So will you agree with me that we can call this the October 2010 letter?

A. Yes.

Q. Okay. Now, I just said that, and we see the date on the letter is actually -- or on Plaintiff's Exhibit 570 is actually February 9, 2017. Do you see that?

A. I do.

Q. Can you explain why that is?

A. The letter that was actually sent and signed was not found in my files. So the letter or the version that was in my files was a digital version in Word format with an auto populate on the date, the date there of February 9th, 2017. So every time that file would be accessed, it's going to auto populate to the current date. And so my best guess is the February 9th, 2017, is when that file was accessed.

Q. Nonetheless, Mr. Anderson, you believe that the letter actually went out in October 2010?

A. Yes.

Q. And do you have any reason to believe that the version that appears in Plaintiff's Exhibit 570 is not the same letter that went to Neldon Johnson in October 2010?

A. I do not.

Q. Mr. Anderson, this letter is addressed to RaPower3 LLC, Neldon Johnson. Do you see that?

A. I do.

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

vs.

RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON and ROGER FREEBORN,

Defendants,

Case No. 2:15-CV-828 DN

BEFORE THE HONORABLE DAVID NUFFER

DATE: APRIL 5, 2018

REPORTER'S TRANSCRIPT OF PROCEEDINGS

BENCH TRIAL

PAGES 722 - 965

Reporter: REBECCA JANKE, CSR, RMR
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A P P E A R A N C E S

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INDEX

E X H I B I T S

Q. And what, if any, other information, Mr. Roulhac, did you have about this database before we arrived on February 28?

A. No additional information other than the fact that a Glenda Johnson was the primary person who made entries to the database and that Neldon Johnson was the creator of that database.

Q. And how did you get that information?

A. I received that information through an email thread that was in the form of a spreadsheet -- or not a spreadsheet but a PDF that contained a string of email from Steven Paul, I believe.

Q. Have you ever met Steven Paul?

A. No, ma'am.

Q. Okay. So, after we met at the Maverick gas station on February 28 in Delta, Utah, tell me generally your impression of where we went next.

A. Well, what we did was we drove over in our own separate vehicles over to the site location, which was where -- my understanding was where the database was housed at. We arrived at approximately 9:00 a.m.

Q. And, from your impression, just looking at the building, what kind of building was it?

A. It appeared to be a form of a warehouse type of building.

09:23:43 Product Tab was identical to the information in that tab
09:23:48 in defendants' database on February 28?
09:23:51 A. Yes, ma'am.
09:23:52 Q. And your copy of the Product Description Tab in
09:23:57 the new spreadsheet you created was identical to the
09:24:01 information that was in defendants' database on February
09:24:06 28?
09:24:07 A. Yes, ma'am.
09:24:08 MS. HEALY-GALLAGHER: Your Honor, may I now
09:24:10 question Mr. Roulhac from my seat?
09:24:13 THE COURT: Sure.
09:24:14 MS. HEALY-GALLAGHER: Thank you.
09:24:19 THE COURT: Can I ask a couple of questions
09:24:21 because they might be best now rather than when you go on
09:24:26 further.
09:24:26 MS. HEALY-GALLAGHER: Sure.
09:24:26 THE COURT: You said, first of all, you were told
09:24:29 it was a massive database?
09:24:30 THE WITNESS: Yes, sir.
09:24:31 THE COURT: But then you found out it was 17.9
09:24:35 megabytes?
09:24:35 THE WITNESS: Yes, sir.
09:24:35 THE COURT: Is that massive in your view and
09:24:37 experience?
09:24:37 THE WITNESS: No, sir, it is not.

09:24:38 1 THE COURT: Was there any local working copy of
09:24:41 2 the database on the laptop?
09:24:43 3 THE WITNESS: No, sir. Not that I'm aware of,
09:24:45 4 no, sir.
09:24:45 5 THE COURT: So it could only access the database
09:24:48 6 when it was connected to the internet?
09:24:52 7 THE WITNESS: Yes, sir.
09:24:53 8 THE COURT: Thanks.
09:24:54 9 THE WITNESS: No problem sir.
09:25:29 10 Q. BY MS. HEALY-GALLAGHER: Mr. Roulhac, I'm showing
09:25:31 11 you what's been marked Plaintiff's Exhibit 749. Do you
09:25:35 12 recognize Plaintiff's Exhibit 749?
09:25:37 13 A. Yes, ma'am, I do.
09:25:39 14 Q. What is it?
09:25:40 15 A. This is the combined spreadsheet, the working
09:25:44 16 spreadsheet that I created based on your request.
09:25:47 17 Q. And at the bottom, the lower left-hand part of
09:25:53 18 the screen, do you see four tabs in this Excel
09:25:56 19 spreadsheet?
09:25:57 20 A. That is correct, yes.
09:25:58 21 Q. We have the Order Tab, correct?
09:26:01 22 A. Correct.
09:26:01 23 Q. The Order Product Tab?
09:26:03 24 A. Correct.
09:26:05 25 Q. The Product Description Tab?

09:26:11 A. That is correct.
09:26:11 Q. And as you described, then we have the combined
09:26:14 sheet, correct?
09:26:16 A. Yes, ma'am.
09:26:17 MS. HEALY-GALLAGHER: Your Honor, at this time I
09:26:18 move to admit Plaintiff's Exhibit 749.
09:26:24 MR. GARRIOTT: Your Honor, our only objection
09:26:26 would be that this is not the complete product that was
09:26:29 created. He already testified that there were 137
09:26:33 tables.
09:26:34 THE COURT: Right.
09:26:34 MR. SNUFFER: And there were only four tables
09:26:37 here listed, so to the extent it doesn't complete the
09:26:40 entire record, we would object.
09:26:42 THE COURT: Overruled. It's received. This is
09:26:45 which document, 749?
09:26:49 (Plaintiffs' Exhibit 749 received in evidence.)
09:26:49 MS. HEALY-GALLAGHER: Plaintiff's Exhibit 749 is
09:26:52 a native file, Your Honor, it's Excel.
09:26:56 THE COURT: Great. Thank you.
09:27:22 Q. BY MS. HEALY-GALLAGHER: Mr. Roulhac, to your
09:27:27 understanding and review of the data, is the Order Tab
09:27:33 here a complete and accurate copy of the Order Tab from
09:27:38 the defendants' spreadsheet -- I'm sorry -- the
09:27:41 defendants' database as it existed on February 28, 2018?

09:27:46 A. Yes, ma'am.
09:27:50 Q. And from your review of all the information in
09:27:53 this case, and what you have done, is the Order Product
09:27:58 Tab in Plaintiff's Exhibit 749 a complete copy of the
09:28:03 Order Product Tab in the defendants' database on February
09:28:07 28, 2018?
09:28:13 A. Yes, ma'am.
09:28:16 Q. And after your review of all the information in
09:28:20 this case, to your understanding, is the Product
09:28:24 Description Tab a complete copy of the Product Description
09:28:30 Tab in the defendants' database on February 18, 2018?
09:28:35 A. Yes, ma'am.
09:28:44 THE COURT: Can I just ask a clarifying question
09:28:47 here. Your last few answers were comparing the
09:28:51 information in each tab of the spreadsheet with the
09:28:55 information in each table of the database that was sent to
09:28:59 you by email?
09:29:00 THE WITNESS: Yes, sir.
09:29:01 THE COURT: Right? So, every field in each table
09:29:09 is present in the spreadsheet?
09:29:11 THE WITNESS: Yes, sir.
09:29:12 THE COURT: In each of these three tables?
09:29:14 THE WITNESS: In each of the three tables.
09:29:17 That's correct.
09:29:18 THE COURT: Okay, thank you.

09:29:19 THE WITNESS: No problem, sir.
09:29:20 Q. BY MS. HEALY-GALLAGHER: And let's just clarify.
09:29:22 For example, would you take a look please, Mr. Roulhac, at
09:29:25 the very top row of the Order Tab in Plaintiff's Exhibit
09:29:30 749. Here we see that the column headers jump from A to I
09:29:39 to J to AQ. Do you see that?
09:29:47 A. Yes, ma'am, I do.
09:29:48 Q. Why is that?
09:29:49 A. Well, that would indicate that there are columns
09:29:52 between these fields that are hidden.
09:29:53 Q. So the columns still exist in the spreadsheet,
09:29:56 correct?
09:29:56 A. Yes, ma'am.
09:29:57 Q. We are just not looking at them right now?
09:30:00 A. That's correct.
09:30:00 Q. If I wanted to unhide a row, what would I do?
09:30:07 A. Well, you would highlight from the top field and
09:30:14 go over to --
09:30:18 Q. I'm not good at this.
09:30:20 THE COURT: Maybe you should give him the
09:30:22 mouse.
09:30:23 Q. BY MS. HEALY-GALLAGHER: I've done it. Okay.
09:30:25 I've right clicked.
09:30:27 A. So you want to highlight from J to A.
09:30:30 Q. Well, if I highlight from J to AQ, what will that

do?

A. Well, that would unhide those fields in between those.

Q. All of those fields, correct?

A. Yes, ma'am.

Q. So if I want to unhide just the column that's in front of AQ, what should I do?

A. You would highlight the column in question.

Q. Okay. And right click?

A. Right click. And scroll down to unhide.

Q. Unhide. And click on unhide?

A. Yes, ma'am.

Q. Okay. What has popped up on the screen?

A. So it appears that you have the comment section, which overlaps the 255 character limitation that Windows has, which means that anything past that threshold you would not be able to view.

Q. So if I wanted to adjust the size of this column, what would I do?

A. You want to right click on the column and go to column width.

Q. Right here?

A. Yes, ma'am.

Q. Okay. So interface has popped up asking me how wide I want the column, correct?

09:31:36 A. Yes, ma'am.
09:31:36 Q. What do you suggest I type in?
09:31:38 A. You should be able to set it anywhere below 255, but can set it to 25.
09:31:43
09:31:48 Q. Okay. So once I have done that and pressed enter, now we see that we can -- column AP is no longer stretched all the way across the screen, correct?
09:31:51
09:31:56
09:31:59 A. Yes, ma'am.
09:32:04 Q. Let's go back to the very beginning of the Order Tab. First, Mr. Roulhac, are you familiar with freezing panes in Excel?
09:32:11
09:32:18
09:32:21 A. Yes, ma'am, I am.
09:32:22 Q. Are there panes frozen in this Excel sheet?
09:32:28 A. I believe the top one may be.
09:32:31 Q. So, if I want to unfreeze the top column, what would I do?
09:32:35
09:32:36 A. Well, you would navigate to view and then go to freeze.
09:32:40
09:32:41 Q. This button right here?
09:32:42 A. That is correct.
09:32:43 Q. All right. I'm clicking on freeze panes.
09:32:47 A. And you want to select to unfreeze panes.
09:32:50 Q. Okay. So now, if I wanted to freeze the panes around row 2, column AR, what would I do?
09:32:57
09:33:00 A. You would select the row in question, go back up

to freeze panes.

Q. Well, if I want it to freeze around this cell, what would I do?

A. You would select the cell in question.

Q. Okay.

A. And then go to freeze panes and freeze panes.

Q. So now we see I can scroll through the data and the row 1 stays still and so do rows A, I, J, AP and AQ, correct?

A. Yes, ma'am.

Q. So let's talk first about what we see in column A on the Order Tab in Plaintiff's Exhibit 749. The first -- that column says Order ID at the top. Do you see that?

A. Yes, ma'am.

Q. What does Order ID mean?

A. Order ID, as it was explained to me by Mr. Aaron Joos, was a unique identifier that interconnects with all other Order ID numbers, for example, within the product ID, Order Product Tables.

Q. You mentioned Order ID as a unique identifier. What does it identify?

A. The Order ID is unique to the customer as well as the customer purchase.

Q. Order ID is for the purchase, correct?

A. Yes, ma'am.

09:34:45 Q. And there's a different Customer ID for
09:34:48 customers, correct?
09:34:50 A. Yes. I believe it is, yes, ma'am.
09:34:52 Q. And how did you learn that?
09:34:54 A. I have learned that through Mr. Aaron Joos.
09:35:01 Q. So, do I understand you correctly, Mr. Roulhac,
09:35:05 that each of the numbers that follow in the Order ID
09:35:10 column are individual purchases?
09:35:15 A. Yes, ma'am.
09:35:21 Q. And the Order ID numbers in column A link
09:35:28 individual purchases throughout the tables in the
09:35:33 defendants' database?
09:35:34 A. That is correct.
09:35:37 Q. All right. Let's take a look, please, at the
09:35:40 next -- next two columns on the Order Tab, which are First
09:35:45 Name and Last Name. Do you see that?
09:35:48 A. Yes, ma'am.
09:35:50 Q. To your understanding, what information do the
09:35:57 First Name and Last Name columns contain here?
09:36:00 A. The First and Last Name columns indicate the
09:36:03 customers.
09:36:03 Q. The purchaser for any one Order ID?
09:36:07 A. Yes, ma'am.
09:36:13 Q. How did you learn that?
09:36:15 A. I learned that through Mr. Aaron Joos on site.

09:36:21 Q. All right. Next, in column AP, we see that the
09:36:25 header says Comment. Do you see that?
09:36:28 A. Yes, ma'am.
09:36:28 Q. We will come back to that column in a moment, but
09:36:31 next I want to go to column AQ which -- excuse me -- has
09:36:37 the header Total. Do you see that?
09:36:40 A. That is correct. Yes, ma'am.
09:36:41 Q. To your understanding, what does the Total column
09:36:45 mean?
09:36:45 A. I believe that the Total column, based on what
09:36:49 was explained is the total amount per purchase.
09:36:53 Q. And was that the amount the customer was invoiced
09:36:56 for the purchase?
09:36:57 A. I believe so, yes, ma'am.
09:37:04 Q. So that's how much the defendants' -- I withdraw
09:37:09 that. And how did you learn that?
09:37:15 A. I learned that on site through Mr. Aaron Joos.
09:37:19 Q. So the numbers that follow in the Total column --
09:37:23 we see a series of numbers there. I take it back. So,
09:37:30 for example, for Order ID Number 1, we see in the total,
09:37:37 cell for Order ID Number 1, 54,000. Mr. Roulhac, do you
09:37:43 have any understanding, is that dollars?
09:37:46 A. I believe it is.
09:38:04 Q. Okay. Let's turn now, please, to the Order
09:38:08 Product Tab in Plaintiff's Exhibit 749. And, again,

09:38:14 Mr. Roulhac, are there panes frozen in the Order Product
09:38:19 Tab?
09:38:20 A. Yes, ma'am.
09:38:20 Q. So, if I want to unfreeze those, I'm going to
09:38:24 come up to the ribbon?
09:38:26 A. Yes, ma'am.
09:38:27 Q. And click on freeze panes and then unfreeze
09:38:31 panes, correct?
09:38:32 A. Yes, ma'am.
09:38:47 Q. And in order to freeze the panes again around the
09:38:51 cell C2, I'm going to highlight that cell, come up to the
09:38:58 ribbon to freeze panes and freeze, correct?
09:39:02 A. That is correct, Miss.
09:39:06 Q. Okay. Let's take a walk through this tab,
09:39:09 please. In column A, we see a marker that says Order
09:39:16 Product ID. Do you see that?
09:39:17 A. Yes, ma'am I do.
09:39:18 Q. Do you have an understanding of what that means?
09:39:21 A. I believe it was the -- is the identifier for the
09:39:25 products that were purchased.
09:39:27 Q. How did you learn that?
09:39:28 A. I learned that on site, through Aaron.
09:39:33 Q. Mr. Joos?
09:39:39 A. Yes, ma'am.
09:39:39 Q. In column B, we see it has the header Order ID.

09:39:44 Do you see that?
09:39:45 A. Yes, ma'am.
09:39:45 Q. And what's your understanding of what follows in
09:39:48 the Order ID column?
09:39:49 A. The Order ID is also a unique identifier that
09:39:55 links back to the Order ID from the Order Tab.
09:39:58 Q. Okay. So, for example, if we have Order ID
09:40:03 Number 1 in the Order Product Tab, the information in this
09:40:14 row that's highlighted matches up to the same
09:40:19 information -- or not the same information -- to the same
09:40:23 Order ID in the Order Tab, correct?
09:40:26 A. Yes, ma'am.
09:40:34 Q. Just to make sure that was clear, so Order ID
09:40:37 Number 1 in the Order Tab, is the same as Order ID 1 in
09:40:45 the Order Product Tab?
09:40:48 A. That is correct.
09:40:49 Q. The information in the two tabs about Order ID 1
09:40:54 might be different, but it all has to do with the same
09:40:57 purchase, correct?
09:40:59 A. Yes, ma'am.
09:41:00 Q. How did you learn that?
09:41:01 A. I learned that through Mr. Aaron Joos.
09:41:17 Q. Let's take a look at column C in the Order
09:41:21 Product Tab that has the header Product ID. Do you see
09:41:24 that?

09:41:24 A. Yes, ma'am, I do.
09:41:25 Q. Do you have an understanding what that means?
09:41:29 A. No, ma'am, not entirely.
09:41:31 Q. How about in column D, the Name column? Do you
09:41:36 have an understanding of what the Name means?
09:41:40 A. I believe it identifies the lenses, but I don't
09:41:45 have a full understanding of what that means, no, ma'am.
09:41:59 Q. So, for example, if we have a Name here in column
09:42:03 D, does that match up to the item that was purchased under
09:42:10 that Order ID Number 1?
09:42:12 A. In theory it should, yes, ma'am.
09:42:15 Q. You don't recall that in particular, though,
09:42:18 right now?
09:42:19 A. I don't.
09:42:20 Q. Okay. How about the Model column in column E?
09:42:24 Do you have an understanding of what that means?
09:42:26 A. The basic understanding that I have would be the
09:42:30 model of whatever lens for the particular field.
09:42:34 Q. And how did you learn that?
09:42:35 A. I learned that through Mr. Aaron Juice.
09:42:40 Q. What about the Quantity field in column F? Do
09:42:44 you have an understanding of what that means?
09:42:45 A. Yes, ma'am.
09:42:46 Q. What is that?
09:42:46 A. That is the quantity of lenses.

09:42:50 1 Q. And that's the quantity of lenses purchased in
09:42:55 2 each order that we see on this spreadsheet?
09:42:58 3 A. I believe so, yes, ma'am.
09:43:00 4 Q. How did you learn that?
09:43:01 5 A. Through Mr. Aaron Juice.
09:43:07 6 Q. Then we come to column G which has the header
09:43:11 7 Price. Do you see that?
09:43:13 8 A. Yes, ma'am, I do.
09:43:15 9 Q. What does the price -- what does price mean in
09:43:20 10 this column?
09:43:20 11 A. The price would signify the amount of that lens,
09:43:27 12 the lens that was purchased.
09:43:31 13 Q. The price per lens?
09:43:33 14 A. Yes, ma'am.
09:43:34 15 Q. How did you learn that?
09:43:35 16 A. Through Mr. Aaron Juice.
09:43:40 17 Q. And how about column H? This says Total the at
09:43:45 18 top, yes?
09:43:46 19 A. Yes, ma'am.
09:43:47 20 Q. Do you have an understanding of what the Total
09:43:50 21 column means?
09:43:51 22 A. The Total column would be the total sum of price
09:43:58 23 purchase for each lens.
09:44:00 24 Q. So, for example, here, in Order ID Number 1, if
09:44:06 25 the quantity is 60, and the price is 900, multiplying 60

times 900, equals 54,000, right?

A. That is correct, yes, ma'am.

Q. And how did you get that understanding?

A. Well, I did my own calculation on that, as well as from Aaron Juice.

Q. Thank you. Let's take a look at the Product Description Tab, please, now, in Plaintiff's Exhibit 749. Mr. Roulhac, column A starts off with Product ID. Do you see that?

A. Yes, ma'am.

Q. And we also saw Product ID in the Order Product Tab, correct?

A. Yes, ma'am.

Q. In column C, correct?

A. Yes, ma'am.

Q. Okay. Let's go back to Product Description. We're going to skip Language ID and come to column C. Do you see that Name field?

A. Yes, ma'am, I do.

Q. To your understanding, is the Name field in Product Description the same as the Name field in Order Product?

A. Can you go back to Order Product -- Product Description, please. Now we can go back to Order Product. No, ma'am.

09:46:04 Q. And let me ask a little bit of a better question.
09:46:18 A. Uh-huh.
09:46:20 Q. Actually, I'll withdraw that. All right, going
09:47:00 back to the Order Product Tab for a moment, let's take a
09:47:05 look again at Order ID Number 1. Do you see that?
09:47:08 A. Yes, ma'am.
09:47:09 Q. The Product ID for Order ID Number 1 is 149. Do
09:47:15 you see that?
09:47:16 A. Yes, ma'am, I do.
09:47:17 Q. And the name says Old 1, 100 percent lens
09:47:25 purchase. Did I read that correctly?
09:47:27 A. That is correct, ma'am.
09:47:29 Q. Okay. So let's go to the Product Description
09:47:31 Tab, and we find Product ID 149. Do you see that?
09:47:37 A. I do, yes.
09:47:39 Q. And the name that connects with that is Old 1,
09:47:44 100 percent lens purchase. Do you see that?
09:47:47 A. Yes, ma'am.
09:47:48 Q. So it appears, Mr. Roulhac, that Product ID 149
09:47:56 and the name on the Product Description sheet match the
09:48:04 information for Product ID and name for Order ID Number 1
09:48:08 in the Order Product sheet?
09:48:12 A. Yes, ma'am.
09:48:30 Q. So, Mr. Roulhac, we have just walked through
09:48:34 three tabs on this whole spreadsheet in Plaintiff's

09:48:37 Exhibit 749, and there is a lot of information in these
09:48:42 tabs; isn't that right?
09:48:43 A. Correct.
09:48:43 Q. So, what did we ask you to do with that, with
09:48:50 some of that information from those tabs?
09:48:52 A. Well, the request was to -- for the Order Table,
09:48:58 was to ascertain the information for Order ID, first and
09:49:03 last names, as well as the total, create a combined
09:49:07 spreadsheet, which is the fourth tab, copy that
09:49:10 information, paste it into that fourth tab, and for the
09:49:15 Order Product, ascertain the Order ID, the name, the
09:49:21 model, the price, quantity, into Total and put that
09:49:27 information into the combined worksheet, lining the
09:49:31 information up and sorting it by Order ID number.
09:49:36 Q. Let's take a look at that combined sheet.
09:49:52 Mr. Roulhac, the combined sheet that you were talking
09:49:56 about, is that what we're looking at right now?
09:50:04 A. Yes, ma'am.
09:50:07 Q. All right. So with this, again, I'm going to
09:50:11 unfreeze the panes that are currently frozen by clicking
09:50:16 on freeze panes and selecting unfreeze panes. Then I'm
09:50:22 going to highlight cell C3 and click on freeze panes again
09:50:31 to freeze the panes around that cell.
09:50:35 And first, Mr. Roulhac, I'd like to take a look
09:50:39 at -- whoops, nope -- at row 1 of the combined sheet in

09:50:47 1 Plaintiff's Exhibit 749. Here we see that Order Product
09:50:53 2 is in row 1. What does order -- why is Order Product
09:51:01 3 covering columns A, B, C, D, E, F and G in the combined
09:51:12 4 sheet?
09:51:12 5 A. Can you please repeat that.
09:51:16 6 Q. Do you have an explanation for why Order Product
09:51:21 7 is in row 1 at the top of the columns A, B, C, D, E, F and
09:51:30 8 G?
09:51:31 9 A. Yes, ma'am. Because that was the location which
09:51:35 10 I copied and pasted the information ascertained from the
09:51:39 11 Order Product Tab.
09:51:41 12 Q. So, the information in the columns underneath
09:51:45 13 Order Product came from the Order Product Tab in
09:51:50 14 Plaintiff's Exhibit 749?
09:51:51 15 A. Yes, ma'am.
09:51:53 16 Q. And if we look back at the combined sheet, also
09:51:58 17 in row 1, Order, covers columns H, I, J and K. Do you see
09:52:07 18 that?
09:52:07 19 A. Yes, ma'am.
09:52:08 20 Q. What does that mean?
09:52:09 21 A. That would signify that that was the fields in
09:52:13 22 which I copied the fields from the Order Table.
09:52:22 23 Q. So, all of the information in columns H, I, J and
09:52:27 24 K on the combined sheet came from the Order Tab in
09:52:33 25 Plaintiff's Exhibit 749?

09:52:35 A. Yes, ma'am.
09:52:43 Q. Going back up to the top of Plaintiff's
09:52:48 Exhibit -- of the combined sheet, you mentioned,
09:52:55 Mr. Roulhac, that you matched up the Order ID's from Order
09:53:01 Product and Order. What do you mean by that?
09:53:04 A. Well, once I copied and pasted the information
09:53:07 into this spreadsheet, I wanted to try and make sure that
09:53:09 all of the tabs that I could viewably see were all lined
09:53:13 up. So, once that was done, I -- to make sure that they
09:53:17 were all lined up, I did a sort by Order ID number, by
09:53:22 going up to home.
09:53:26 Q. Well, actually, first, Mr. Roulhac, I'd like to
09:53:30 walk this through with you just a little bit?
09:53:33 A. Yes, ma'am.
09:53:34 Q. So, for example, here on row 3 on the combined
09:53:38 sheet, we see that Order ID appears in column A and in
09:53:44 column H. Do you see that?
09:53:47 A. Yes, ma'am.
09:53:50 Q. Is that how you matched up the information from
09:53:54 the Order Product fields and the Order fields?
09:53:59 A. Yes, ma'am.
09:54:02 Q. So, what we're seeing, Mr. Roulhac, is that all
09:54:08 of the information in row 3 of the combined spreadsheet
09:54:14 has to do with Order ID Number 1; is that right?
09:54:22 A. Correct.

09:54:23 1 Q. So, Order ID Number 1 involved an Old 1, 100
09:54:32 2 percent lens purchase with a model 900 lens 100. The
09:54:42 3 quantity was 60, 60 lenses. The price for each lens was
09:54:51 4 $900. The total was $54,000, right?
09:55:00 5 A. Yes, ma'am.
09:55:01 6 Q. Then, again, we see the Order ID to match things
09:55:04 7 up, and the customer who made purchase with Order ID
09:55:08 8 Number 1 is Roger Hamblin, correct?
09:55:12 9 A. Yes, ma'am.
09:55:13 10 Q. And, again, we see a total of $54,000; is that
09:55:18 11 right?
09:55:18 12 A. Yes, ma'am.
09:55:41 13 Q. Mr. Roulhac, did we ask you to add up all the
09:55:46 14 numbers in the Total column?
09:55:48 15 A. Yes, ma'am, you did.
09:55:49 16 Q. How did you do that?
09:55:51 17 A. I selected that column and then scrolled down to
09:55:57 18 the bottom of the empty cell just below the last number in
09:56:03 19 that column. So if you go to Total, scroll down. So just
09:56:32 20 below the 1950, I highlighted that field, and I went to
09:56:36 21 the auto sum option.
09:56:39 22 Q. And that's under the formulas tab at the top?
09:56:42 23 A. Yes, ma'am, that's correct.
09:56:43 24 Q. And clicking the button that says auto sum,
09:56:48 25 correct?

09:56:48 A. Correct.
09:56:49 Q. And here, in the cell for G-7072, do you see the
09:56:58 formula that Excel applies when you click auto sum?
09:57:03 A. Yes, ma'am, I do.
09:57:04 Q. And if we hit enter, what's the number that we
09:57:08 get?
09:57:08 A. 50,025,480.
09:57:17 Q. And if we arrow over to the total in cell K,
09:57:28 7072, from the Order Tab, what's the total there?
09:57:33 A. The total is 50 thousand -- 50,097,672.15.
09:57:44 Q. What, if any, understanding, Mr. Roulhac, do you
09:57:47 have about why those two numbers are different?
09:57:50 A. Well, in the process of matching the columns up,
09:57:55 the rows, I discovered that there were entries that were
09:58:04 missing in the Order Table that existed in the Order
09:58:07 Product Table and vice versa.
09:58:09 Q. And if you discovered that, what did you do?
09:58:12 A. I documented it and put it into another
09:58:17 spreadsheet I did to find what was actually missing.
09:58:45 Q. And what, if any, other discrepancies did you
09:58:55 notice about the data in this combined chart?
09:58:56 A. Some of the discrepancies that I noticed is that
09:58:59 there were on both sides of the Order Table, as well as
09:59:01 the Order Product, that there were missing records, and
09:59:06 again, records that existed within the Order Table existed

09:59:11 in the Order Product Table, records that were missing from
09:59:15 the product table existed in the Order Table.
09:59:19 Q. So, other than the, you know, certain things
09:59:23 didn't match up because some information from the Order
09:59:26 Table was missing from the Order Product Table and vice
09:59:29 versa, what, if any, duplicate or apparent duplicate
09:59:37 entries did you see?
09:59:38 A. There were -- there were certain entries that
09:59:45 were duplicated. I believe there were some entries within
09:59:50 the Order ID's that were duplicated.
09:59:53 Q. About how many duplicated Order ID's did you
09:59:58 notice?
09:59:59 A. If I recall, I believe it was around 12.
10:00:01 Q. Let's take a look at some examples. We're going
10:00:04 to look at lines 6858 -- we're going to look at -- and
10:00:23 this is, on the combined sheet, the lines of the sheet,
10:00:28 6858 and 6859. The Order ID for both of these lines is
10:00:37 28660684. Do you see that?
10:00:41 A. Yes, ma'am.
10:00:42 Q. So, this Order ID is duplicated in both lines,
10:00:49 correct?
10:00:49 A. That is correct.
10:00:51 Q. But, Mr. Roulhac, the information on each line is
10:00:56 not identical, is it?
10:00:59 A. The only thing that I see in these lines that are

identical is the first and last name and the total. Other than that, no, ma'am.

Q. So the first and last name of the customer in these lines that we're discussing is Matthew Shepard; is that correct?

A. Yes, ma'am.

Q. But, for example, if we take a look at line 6858, the price in column F, the price is $650, correct?

A. Yes, ma'am.

Q. And the total is $650 in column G, yes?

A. Yes, ma'am.

Q. But the total in column K is $850?

A. That is correct.

Q. Then, down in line 6859, the price in column F is $100, yes?

A. Yes, ma'am.

Q. The total is $200, right?

A. Yes, ma'am.

Q. I'm sorry. That's the total in column G. And then the total in column K is $850. Do you see that?

A. Yes, ma'am.

Q. Do you have any explanation for why that is, Mr. Roulhac?

A. I do not, no, ma'am.

Q. All right, Mr. Roulhac, I'm going to direct your

DIRECT EXAMINATION

BY MS. HINES

Q. Good morning, Ms. Perez.

A. Good morning.

Q. You've already stated your name for the record, but can you also state your business address for the record?

A. 555 Fourth Street, Washington, D.C.

Q. Ms. Perez, what, if any, education do you have after high school.

A. In 2011, I received my bachelor of science degree in paralegal studies from Berkeley College, and in 2015, I received my master of science degree in management from Catholic University in Washington, D.C.

Q. And if you need water, it's right there. Ms. Perez, how are you currently employed?

A. With the Department of Justice Tax Division.

Q. And what is your role at the Department of Justice Tax Division?

A. I'm a paralegal specialist, and I assist attorneys with legal research, drafting legal documents, document review, just to name a few of my duties.

Q. And, Ms. Perez, how long have you been employed at the tax division?

A. Since December, 2016.

11:39:45 Q. And, Ms. Perez, can you briefly describe your
11:39:48 prior work history before you joined the tax division in
11:39:52 December, 2016?
11:39:53 A. I was with the Department of Justice, just in a
11:39:57 different division, commercial litigation department.
11:39:59 Q. And how long did you work there?
11:40:01 A. Eight years.
11:40:04 Q. Ms. Perez, are you familiar with the current case
11:40:06 that we're here for today, United States vs. RaPower-3, et
11:40:11 al.?
11:40:12 A. Yes.
11:40:12 Q. How are you familiar with this case?
11:40:14 A. I was asked to prepare summary exhibits.
11:40:17 Q. And what records were you summarizing?
11:40:21 A. Defendants' customers' tax return information.
11:40:27 Q. Okay.
11:40:28 Can we please take a look at Plaintiff's Exhibit
11:40:32 752, the first page.
11:40:34 Q. Ms. Perez, if you want to just look in the binder
11:40:36 and look through all three pages of 752, and when you're
11:40:41 finished, look up. Ms. Perez, do you recognize all three
11:41:12 pages of Plaintiff's Exhibit 752?
11:41:14 A. Yes.
11:41:14 Q. How do you recognize Plaintiff's Exhibit 752?
11:41:17 A. I was asked to prepare this chart.

11:41:19 Q. Did you prepare all three charts in Plaintiff's Exhibit 752?
A. Yes.
Q. Okay, Ms. Perez, I'd like to walk through how you prepared these charts. So we'll start with page 1. The title is Tax Benefits Claimed, and then underneath that it says TY 2013 Through 2016. What does the TY abbreviation stand for?
A. Tax year.
Q. Okay. So this chart on page 1 summarizes tax benefits claimed on tax returns for 2013 through 2016?
A. Yes.
Q. Ms. Perez, approximately how many tax returns did you review?
A. Over 1,600.
Q. And there are three columns on the first page of Plaintiff's Exhibit 752?
A. Yes.
Q. Okay. The column on the left, how did you define that column?
A. It's the tax preparer column.
Q. And where do you find that on the tax return?
A. On the 1040 form.
Q. What about depreciation and expense and solar energy credit? Where did you find the items that you

included in those two columns?

A. The depreciation expense is on the Schedule C form, and the solar energy credit is on the 3468 form.

Q. Okay. I'm going to turn your attention to what has been marked as Plaintiff's Exhibit 132, which is a tax return that the United States intends to use with a future witness, and just kind of walk me through how you found these items on the tax return.

So, do you want to take a look at 132 in your binder and then direct us to a specific page.

A. Yes.

Q. So, the first item that was on your chart in 752 was the tax preparer?

A. Yes. And that is on -- I think a page is missing here, but it's on the third page of the 1040 form. Right there.

Q. Okay. So page 4 of Plaintiff's Exhibit 132. And on the screen --

Is the annotation on?

So, if you could just annotate on the tax return where you're looking at. Okay. Right down there?

A. Yeah.

Q. Okay. And so down there on Plaintiff's Exhibit 132, we see the name Richard Jameson; is that correct?

A. Yes.

11:44:34 1 Q. So the next item in your chart on Plaintiff's
11:44:37 2 Exhibit 752 is the depreciation expense. Can you direct
11:44:40 3 us to the page in Plaintiff's Exhibit 132 where that item
11:44:45 4 comes from?
11:44:46 5 A. It's --
11:44:55 6 Q. I actually think that we only had one-sided
11:45:01 7 copies, I think, in the binder, so that's our mistake.
11:45:05 8 Let's go to page 6 on the screen, please.
11:45:08 9 A. Yes.
11:45:09 10 Q. Okay. And, Ms. Perez, Plaintiff's Exhibit 132,
11:45:12 11 page 6, what is this part of the tax return?
11:45:16 12 A. It's right there. This is the depreciation
11:45:19 13 expense.
11:45:20 14 Q. Okay. And what form is page 6?
11:45:24 15 A. Schedule C.
11:45:25 16 Q. Okay. Are there any other items on page 6 of the
11:45:29 17 Schedule C that you were asked to look at with respect to
11:45:33 18 whether or not these tax returns related to defendants'
11:45:37 19 solar energy programs?
11:45:38 20 A. Yes.
11:45:38 21 Q. Okay. And where on the Schedule C of page 6 of
11:45:45 22 plaintiff's 132 did you look? Okay. So you've
11:45:47 23 highlighted what look to be lines A and C.
11:45:53 24 Can we zoom in on those, please, Mr. Moran.
11:45:53 25 So line A of the Schedule C asks for the

11:45:57 1 principal business or profession, and here it is equipment
11:45:59 2 rental services. And line C, business name, says PFO
11:46:05 3 Solar; is that correct?
11:46:06 4 A. Yes.
11:46:06 5 Q. Okay. Why did you include these terms in your
11:46:11 6 review of the tax returns?
11:46:12 7 A. Because I was instructed to look for certain term
11:46:19 8 indicators like the business name; for example, the
11:46:24 9 equipment rental services, and the business name would
11:46:29 10 have some type relation with the solar energy.
11:46:36 11 Q. And, in addition to these, the "equipment rental
11:46:40 12 services" term and looking for "solar" in the business
11:46:43 13 name, were there other terms that you reviewed on Schedule
11:46:47 14 C that indicated the returns were related to defendants'
11:46:51 15 solar energy programs?
11:46:52 16 A. Yes. I was looking for the name RaPower-3, and
11:46:57 17 there was two other terms I don't recall.
11:47:01 18 Q. Did you see, in your review, the term "solar
11:47:05 19 thermal lenses?"
11:47:06 20 A. Yes.
11:47:06 21 Q. Did you also see the term "alternative energy
11:47:09 22 systems"?
11:47:09 23 A. Yes.
11:47:10 24 Q. And how, if at all, did you include Schedule C's
11:47:14 25 with those terms in your review?

A. Those were the terms that I was looking for, so any time I seen those terms, I made sure to identify that specific Schedule C.

Q. Okay. And so would those Schedule C items have been included in your summary in Plaintiff's Exhibit 752?

A. Yes.

Q. Okay.

Let's walk back to Plaintiff's Exhibit 752, please, Mr. Moran, and page 1.

So, again, when we looked at Plaintiff's Exhibit 752, we saw Richard Jameson. Where, if at all, on Plaintiff's Exhibit 752 do you see Mr. Jameson's name?

A. (Witness indicating on screen.)

Q. Okay. So you're indicating the third row under the headers, where it says Richard Jameson, Utah?

A. Yes.

Q. Okay. And next to Mr. Jameson's name is a $3,452,658 for depreciation expense?

A. Yes.

Q. How did you arrive at that amount for Mr. Jameson?

A. I just had Excel basically total the sum of depreciation expense related to any tax returns that Mr. Jameson prepared.

Q. And then, how did you arrive at the solar energy

11:48:37 1 credit of $921,900 for Mr. Jameson?
11:48:41 2 A. I did the same thing. I had Excel total the
11:48:46 3 amount for me.
11:48:46 4 Q. For all returns that had Mr. Jameson as a
11:48:49 5 preparer?
11:48:49 6 A. Yes.
11:48:50 7 Q. And, again, those are for the returns for 2013
11:48:53 8 through 2016 that you reviewed?
11:48:56 9 A. Yes.
11:48:56 10 Q. Ms. Perez, there are three other lines in
11:48:59 11 Plaintiff's Exhibit 752. There is John Howell, Kenneth
11:49:04 12 Alexander, and then there's a bulk category that says
11:49:08 13 other preparers. Do you see that?
11:49:09 14 A. Yes.
11:49:10 15 Q. Ms. Perez, approximately how many other preparers
11:49:13 16 are included in that line?
11:49:14 17 A. Five.
11:49:19 18 Q. Okay.
11:49:19 19 I'd like to now put both page 1 and page 2 of 752
11:49:24 20 on the screen, please, Mr. Moran.
11:49:51 21 Okay. Ms. Perez, do you see page 1 and page 2
11:49:56 22 displayed next to each other on the screen?
11:49:58 23 A. Yes.
11:49:58 24 Q. Okay. Ms. Perez, can you explain what, if any,
11:50:02 25 difference there is between the chart on page 1 of

11:50:04 Plaintiff's Exhibit 752 and the chart on page 2 of
11:50:08 Plaintiff's Exhibit 752?
11:50:08 A. The chart on page 2 is organized by the tax
11:50:13 year.
11:50:13 Q. Okay. Are there any other differences on page 2
11:50:16 of Plaintiff's Exhibit 752?
11:50:17 A. Yes. There's an additional column for
11:50:21 depreciation at average tax rate.
11:50:23 Q. And, Ms. Perez, what did you do to arrive at the
11:50:27 numbers in that column?
11:50:27 A. I went to the IRS website, specifically the
11:50:31 statistics of income section, and I looked for the average
11:50:35 tax rate for years between 2013 and 2016.
11:50:42 Q. And what did you find, if anything, with respect
11:50:46 to tax year 2016 that was different than 2013 through
11:50:50 2015?
11:50:50 A. Well, 2016's tax rate was not available, so I
11:50:55 used the 2015 tax rate --
11:50:57 Q. Okay.
11:50:58 A. -- to calculate that sum.
11:51:00 Q. Okay, so you took the average tax rate and you
11:51:03 multiplied it against the number that's in the
11:51:06 depreciation expense column?
11:51:07 A. Correct.
11:51:08 Q. And that's how you arrived at depreciation at

11:51:11 1 average tax rate?
11:51:13 2 A. Yes.
11:51:13 3 Q. Okay. I notice that the grand total for the
11:51:15 4 depreciation expense, $30,884,502 is the same on both page
11:51:25 5 1 and page 2; is that correct?
11:51:26 6 A. Yes.
11:51:26 7 Q. And then the solar energy credit, $9,845,747 is
11:51:31 8 also the same on page 1 and page 2?
11:51:34 9 A. Correct.
11:51:36 10 Q. So, Ms. Perez, just to -- is it fair to
11:51:40 11 characterize the same information underlies both charts on
11:51:43 12 page 1 and page 2, it's just organized in a different
11:51:47 13 fashion?
11:51:48 14 A. Correct.
11:51:48 15 Q. Okay.
11:51:49 16 Mr. Moran, can you now display pages 2 and 3
11:51:55 17 together, please.
11:52:09 18 Okay. Ms. Perez, do you currently see on your
11:52:13 19 screen page 2 on the left and page 3 of the 752 on the
11:52:17 20 right?
11:52:17 21 A. Yes.
11:52:18 22 Q. Ms. Perez, can you explain what, if any,
11:52:20 23 difference there is between page 2 and page 3 of
11:52:23 24 Plaintiff's Exhibit 752?
11:52:24 25 A. Page 3 has an additional column. It's called

11:52:29 Harm To Treasury.
11:52:31 Q. And is there also a column missing on page 3?
11:52:34 A. Yes, the Depreciation Expense Column.
11:52:38 Q. Okay. So, where did you get the information for
11:52:40 the depreciation and average tax rate and solar energy
11:52:44 credit that is on page 3 of Plaintiff's Exhibit 752?
11:52:49 A. From the previous chart.
11:52:50 Q. And then, Ms. Perez, how did you arrive at the
11:52:53 numbers in the last column on page 3 of the Harm To
11:52:56 Treasury Column?
11:52:57 A. I just added the depreciation of average tax rate
11:53:01 column to the solar energy credit column, and that
11:53:05 provided me with the sum for harm to treasury.
11:53:08 Q. So, Ms. Perez, it sounds like what you did is
11:53:12 take numbers claimed on a tax return, add them up; is that
11:53:16 correct? That was what we do on the first part of page 1
11:53:21 and the two columns on page 2 of 752?
11:53:25 A. Correct.
11:53:25 Q. And then you multiplied the depreciation expense
11:53:28 and the average tax rate on page 2?
11:53:32 A. Correct.
11:53:32 Q. And then you added the credit and the
11:53:35 depreciation average tax rate to arrive at harm to
11:53:35 treasury?
11:53:36 A. Yes.

11:53:38 1 Q. So you were not asked to go through each
11:53:42 2 individual return and determine the actual tax rate that
11:53:43 3 each taxpayer had paid on their tax return that you
11:53:47 4 reviewed, correct?
11:53:48 5 A. Correct.
11:53:49 6 Q. And you were not asked to verify the expenses
11:53:53 7 claimed, either depreciation or the solar energy credits
11:53:56 8 claimed by the taxpayers in the tax returns that you
11:53:59 9 reviewed?
11:54:00 10 A. No.
11:54:04 11 THE COURT: Okay. I've got a question. Where
11:54:06 12 did you get the solar energy credit numbers then?
11:54:10 13 THE WITNESS: On form 3468.
11:54:13 14 THE COURT: Off of every tax return?
11:54:15 15 THE WITNESS: Yes.
11:54:15 16 MS. HINES: Actually, that's my next --
11:54:17 17 THE COURT: Okay.
11:54:19 18 MS. HINES: If we can do back to Plaintiff's
11:54:21 19 Exhibit 132, please, Mr. Moran, and go to page 15, please.
11:54:29 20 Q. BY MS. HINES: Okay. Ms. Perez, this is the form
11:54:32 21 3468 that you indicated?
11:54:33 22 A. Yes.
11:54:33 23 Q. Okay. Where -- can you direct us to what line on
11:54:36 24 the form 3468 that the solar tax credit number derived
11:54:43 25 from on your chart?

11:54:44 A. The next page. Can you go to the next page?
11:54:51 Q. Okay. And I see you have circled the number on
11:54:54 line 12B.
11:54:55 I'm actually going to clear the annotation and
11:54:59 ask Mr. Moran to zoom, in please, starting on page 12.
11:55:04 Higher. Yeah. Yes. Thank you.
11:55:11 Okay. So 12B. And 12 says: Energy credit.
11:55:16 Then B says: `Basis of property using solar illumination
11:55:22 or solar energy placed in service during the tax year that
11:55:25 was acquired after December 31, 2005, and the basis
11:55:30 attributable to reconstruction or erection by the taxpayer
11:55:36 after December 31, 2005, parentheses, see instructions,
11:55:41 end parentheses.
11:55:42 Did I read that correct?
11:55:44 A. Yes.
11:55:45 Q. Okay. And then you -- before we zoomed in, you
11:55:48 had circled this 10,500 amount, correct?
11:55:51 A. Yes.
11:55:51 Q. So I do also see a 35,000 amount on the left-hand
11:55:57 side before the grade out box. Just to be clear, which of
11:56:01 the two numbers is the number that you summed into your
11:56:04 charts in Plaintiff's Exhibit 752?
11:56:08 A. (Indicating on the screen.)
11:56:10 Q. Okay. So the 10,500, which is on the right of
11:56:14 the grade out box?

11:56:15 A. Correct.
11:56:18 MS. HINES: May have a moment, Your Honor?
11:56:19 THE COURT: Yeah. I have got a question, though. So your sum of the solar energy credit, $9,845,747 is the
11:56:21 actual sum of all the tax credits you found on these tax
11:56:27 returns?
11:56:32 THE WITNESS: Yes.
11:56:33 THE COURT: The depreciation expense number is also a sum of amounts you found on every tax return?
11:56:37 THE WITNESS: Correct.
11:56:41 THE COURT: But the depreciation at the average tax rate is a derived number that you calculated that does
11:56:41 not appear anywhere on the tax returns?
11:56:44 THE WITNESS: Correct.
11:56:48 THE COURT: How did you determine -- how did you locate the tax returns from which you took all this
11:56:50 information?
11:56:51 THE WITNESS: I was given a spreadsheet by Ms. Hines, and she asked me to -- which had the
11:56:54 defendants' customers' tax return information, and I had to go through each line and basically confirm that the
11:56:57 numbers on the spreadsheet were actually the numbers on the tax returns.
11:56:58 THE COURT: Do you know how Ms. Hines prepared the list that she gave you of the tax return numbers?
11:57:02
11:57:05
11:57:08
11:57:11
11:57:14
11:57:18
11:57:21

11:57:25 1 THE WITNESS: No.
11:57:27 2 THE COURT: Did you compare the list of tax
11:57:30 3 returns with any material out of the database that
11:57:33 4 Mr. Roulhac was talking about?
11:57:36 5 THE WITNESS: I compared the list -- the tax
11:57:39 6 returns with the spreadsheet that Ms. Hines provided me.
11:57:42 7 That was the only two comparisons I did.
11:57:46 8 THE COURT: Thank you.
11:57:46 9 THE WITNESS: You're welcome.
11:57:48 10 THE COURT: Yeah. You can have a minute.
11:57:51 11 MS. HINES: Thank you.
11:58:27 12 Q. BY MS. HINES: Ms. Perez, to be clear, you
11:58:29 13 reviewed the actual tax returns of the customers for the
11:58:33 14 subset that you were given, correct?
11:58:35 15 A. Yes.
11:58:35 16 Q. And you compared them with the spreadsheet,
11:58:38 17 correct?
11:58:38 18 A. Yes.
11:58:38 19 Q. And if there was a mistake and the tax return
11:58:43 20 showed a different number than the Excel spreadsheet,
11:58:47 21 what, if anything, did you do?
11:58:47 22 A. I would input the correct number.
11:58:49 23 Q. So the spreadsheet would then match the tax
11:58:52 24 return?
11:58:55 25 A. Yes.

11:58:55 1 Q. Also, we've been talking about Plaintiff's
11:58:58 2 Exhibit 132. The tax returns that you reviewed, though,
11:59:03 3 were in fact the filed tax returns that the IRS provided,
11:59:07 4 correct?
11:59:08 5 A. Yes.
11:59:09 6 Q. Did you take a look at Plaintiff's Exhibit 132
11:59:12 7 and compare it with the tax return and the numbers from
11:59:15 8 your spreadsheet to ensure that it was correct?
11:59:21 9 A. Yes.
11:59:21 10 MS. HINES: At this time, Your Honor, plaintiff
11:59:23 11 moves to admit Plaintiff's Exhibit 132 and Plaintiff's
11:59:27 12 Exhibit 752 into evidence, with the caveat that 132 is one
11:59:31 13 of the documents we noted that needs the additional
11:59:34 14 redaction that we will do and provide.
11:59:45 15 MR. EGAN: Joshua Egan on behalf of defendants.
11:59:45 16 Your Honor, defendants object to that on the basis that
11:59:47 17 it's improper 1006 summary testimony, specifically as it
11:59:52 18 relates to the calculations based on the average tax rates
11:59:56 19 to the depreciation expenses. She's summarizing
11:59:59 20 information that is nowhere to be found from each
12:00:03 21 individual -- the tax returns because she's applying a
12:00:06 22 figure that isn't related to them. So it's improper
12:00:09 23 summary.
12:00:10 24 As far as the credits go and the actual amounts
12:00:13 25 of depreciation, no objection to that, but the calculation

applying this average tax rate is improper 1006 summary testimony.

THE COURT: All right. 132 is offered. No objection was made. It's received.

(Plaintiffs' Exhibit 132 received in evidence.)

Do you want to speak to 752?

MS. HINES: Yes, Your Honor, if I may. And I believe we addressed this in our briefs, but the calculation that Ms. Perez did, which is on page 2 of Plaintiff's Exhibit 752, and follows through to page 3, and the addition, are simple mathematical computations. And they can be -- and cases have approved admission of summary exhibits that have simple mathematical computations.

Ms. Perez explained page 2 of Plaintiff's Exhibit 752, how she arrived at those numbers, where she found those numbers, and we think it's appropriate summary evidence with a simple mathematical computation.

THE COURT: 752 is received. The point of the computation and its somewhat theoretical basis is noted.

(Plaintiffs' Exhibit 752 received in evidence.)

MR. EGAN: Thank you, Judge.

THE COURT: Cross examination?

CROSS EXAMINATION

MR. EGAN:

Q. Good afternoon, Ms. Perez.

A. Good afternoon.

Q. My name is Joshua Egan. I will be providing the cross examination for you this evening -- or excuse me -- this afternoon on behalf of the defendants. Now, Ms. Perez, you mentioned earlier about your education, correct?

A. Yes.

Q. You received various undergraduate degrees, but is it true that you don't have any training in tax preparation?

A. That's correct.

Q. And you don't have any experience or training in forensic accounting, do you?

A. No.

Q. And can you define for us -- can you define for the Court today what is meant by the term "solar credit," "solar tax credit," as you use it in your exhibits?

A. I don't know.

Q. Can you define what you mean by "depreciation expense," again, a term used by you in the exhibits you prepared?

A. I don't know.

12:02:22 Q. You also have a term that you've listed in your
12:02:26 exhibits, "harm to treasury." Do you recall that term
12:02:29 being in your exhibits?
12:02:31 A. Yes.
12:02:31 Q. And can you provide the Court a definition of
12:02:34 what you mean by harm to treasury?
12:02:36 A. No.
12:02:37 Q. But it's your term in the exhibits that you
12:02:39 prepared, correct?
12:02:41 A. Yes.
12:02:42 Q. At least a term that you used. And it was your
12:02:50 prior testimony that you reviewed over 1,600 tax returns,
12:02:53 correct?
12:02:54 A. Yes.
12:02:54 Q. All right.
12:02:55 Can we bring up Exhibit 132, Plaintiff's Exhibit
12:02:59 132. If we could go to the second page of Plaintiff's
12:03:08 Exhibit 132.
12:03:09 Have you seen the bottom right-hand corner where
12:03:12 it shows Olsen underscore P&E, and there's a hyphen 00493?
12:03:20 A. Yes.
12:03:20 Q. And does that numbering at the bottom right-hand
12:03:23 corner have any significance to you?
12:03:25 A. No.
12:03:29 Q. Do you recall independent -- do you have

12:03:31 1 independent recollection of looking at this specific tax
12:03:34 2 return that is Plaintiff's Exhibit 132, in relation to a
12:03:40 3 review of the tax returns that you used to create Exhibit
12:03:44 4 752?
12:03:45 5 A. Yes.
12:03:45 6 Q. You do? And can you direct us, in Plaintiff's
12:03:55 7 Exhibit 132, to this which page of this exhibit is
12:04:01 8 Schedule C?
12:04:01 9 A. Sure.
12:04:05 10 Q. I believe it should be page 6. Will you verify?
12:04:13 11 A. Can I scroll?
12:04:23 12 Q. All right. Can you view what's currently on the
12:04:26 13 monitor before you?
12:04:27 14 A. Yes.
12:04:28 15 Q. And is this the Schedule C 1040?
12:04:30 16 A. Yes.
12:04:30 17 Q. And is this the form that you pulled the
12:04:33 18 depreciation expense from?
12:04:34 19 A. Correct.
12:04:34 20 Q. All right. Is there any indication in this form
12:04:37 21 that this property being depreciated is a solar lens?
12:04:43 22 A. Just the business name.
12:04:44 23 Q. Just the business name. So is it possible that
12:04:47 24 this individual purchased a computer and depreciated that
12:04:53 25 computer and that, if he did that, it would be in this --

12:04:57 1 it would be on Schedule C?
12:04:58 2 A. I don't know.
12:04:58 3 Q. All right. You don't know because that
12:05:01 4 information isn't in this tax return, right?
12:05:02 5 A. Correct.
12:05:03 6 Q. It only has what this particular individual is
12:05:06 7 claiming as a business depreciation expense?
12:05:10 8 A. Yes.
12:05:11 9 Q. But not identifying what property that is, right?
12:05:25 10 A. Yes.
12:05:25 11 Q. Okay. Let's take a look at your summary exhibit
12:05:28 12 now, Exhibit 752. So, are you looking at the monitor
12:05:41 13 where it has the first page of Exhibit 752? Can you show
12:05:46 14 me on this page where it shows that RaPower, LTB1, Gregg
12:05:55 15 Shepard, Neldon Johnson or any other defendant in this
12:05:58 16 matter received any of these monies that you have
12:06:02 17 organized here?
12:06:06 18 A. I cannot.
12:06:07 19 Q. On the next page, page 2 of your summary exhibit,
12:06:12 20 same question. Can you show me where, on this page, you
12:06:17 21 provide a summary of how defendants -- or the amount of
12:06:21 22 money the defendants received in this matter from any of
12:06:24 23 the solar energy credit that you identify here?
12:06:28 24 A. Can you please clarify?
12:06:31 25 Q. Gladly. Where in this chart does it show that

12:06:34 1 the energy credit of this -- looking down to your grand
12:06:39 2 total row of 9,845,747, where in this chart does it show
12:06:47 3 that that money flows to any of the defendants in this
12:06:57 4 matter?
12:06:58 5 A. Can you clarify the question?
12:07:00 6 Q. Right. What I'm asking is, you -- you identify
12:07:04 7 here that there's a solar energy credit that you -- you
12:07:09 8 aggregated these numbers from all of the individual tax
12:07:11 9 returns that you reviewed, correct?
12:07:13 10 A. Yes.
12:07:14 11 Q. And then you added them all up and that came to
12:07:18 12 this grand total of $9,845,747 correct?
12:07:24 13 A. Correct.
12:07:25 14 Q. Now, what I'm asking you is, does this chart show
12:07:29 15 or demonstrate in any way that that 9.8 million went to
12:07:34 16 any of the defendants in this matter?
12:07:37 17 A. No, it doesn't.
12:07:38 18 Q. It just simply adds up those -- the amount of
12:07:41 19 money that individuals are claiming as a tax credit on
12:07:45 20 their individual tax returns, correct?
12:07:46 21 A. Yes.
12:07:47 22 Q. But there's no evidence whatsoever that you
12:07:49 23 relied on that you put into a summary that showed it's
12:07:53 24 going to defendants, correct?
12:07:54 25 MS. HINES: Objection. Argumentative.

12:07:58 1 THE COURT: Overruled.
12:07:59 2 THE WITNESS: Can you repeat the question?
12:08:00 3 Q. BY MR. EGAN: My question is, you didn't rely on
12:08:02 4 any evidence when you were creating this summary chart
12:08:05 5 that this amount of solar energy credit actually made it
12:08:09 6 to any of the defendants in this matter, correct?
12:08:12 7 A. I just did what I was instructed to do by
12:08:16 8 Ms. Hines.
12:08:17 9 Q. And what were you instructed to do?
12:08:19 10 A. Just to review tax returns against the
12:08:21 11 spreadsheet and make sure that the numbers were correct.
12:08:23 12 Q. And that was the limit of the scope of your task,
12:08:30 13 correct?
12:08:30 14 A. Yes.
12:08:30 15 Q. And so your task did not include connecting this
12:08:34 16 number, this 9.8 -- excuse me -- the 9 million 847 -- 845
12:08:41 17 thousand 747 dollars to any of the bank accounts of the
12:08:47 18 defendants; is that correct?
12:08:48 19 A. Yes.
12:08:52 20 Q. And when you reviewed these voluminous 600 tax
12:09:00 21 returns, you noted in each individual tax return who the
12:09:04 22 tax preparer was, correct?
12:09:06 23 A. Yes.
12:09:06 24 Q. In fact, you organized that information on the
12:09:08 25 first page of Exhibit 752, right?

12:09:12 A. Yes.
12:09:12 Q. And when you went through each of those
12:09:14 individual tax returns, at any point in time, did you see
12:09:19 that a tax preparer was RaPower-3?
12:09:24 A. I don't recall.
12:09:25 Q. What about Neldon Johnson?
12:09:28 A. I don't recall.
12:09:30 Q. Gregg Shepard?
12:09:31 A. I don't recall.
12:09:32 Q. Are you familiar with the names of the other
12:09:35 defendants in this matter?
12:09:36 A. No.
12:09:37 Q. LTB1. Did you notice any LTB1 -- any tax returns
12:09:42 prepared by LTB1 on behalf of these individual taxpayers?
12:09:47 A. No.
12:10:03 MR. EGAN: If I may have a moment, Your Honor?
12:10:06 THE COURT: Yes.
12:10:19 Q. BY MR. EGAN: All right. So, focusing back again
12:10:21 on Exhibit 752, can you show me anywhere in Exhibit 752
12:10:27 whether or not any of these individuals purchased a lens
12:10:31 from RaPower-3?
12:10:32 A. Which individuals?
12:10:34 Q. Any individuals of the tax returns that you
12:10:38 reviewed.
12:10:38 A. Can you clarify the question?

12:10:39 Q. Sure. In the tax returns that you reviewed, did
12:10:42 you receive any evidence or review any evidence that these
12:10:46 individuals actually purchased RaPower-3 lenses?
12:10:52 A. Outside of the spreadsheet I received, that's the
12:10:55 only information I had.
12:10:57 Q. And you testified earlier that the spreadsheet
12:10:59 you received was limited to information that was already
12:11:03 gleaned from these tax returns, correct?
12:11:05 A. Yes.
12:11:06 Q. And your task was to make sure, as it relates to
12:11:10 that spreadsheet, that the information was correct?
12:11:13 A. Yes.
12:11:14 Q. Between -- that the -- pardon me. That the
12:11:16 spreadsheet agreed with the information from the tax
12:11:17 returns, right?
12:11:23 A. Yes.
12:11:23 Q. Okay. Consider the following: If an individual,
12:11:28 individual taxpayer actually claimed a tax credit for a
12:11:33 lens that individual never actually ended up purchasing,
12:11:37 would that tax credit still show up in your summary?
12:11:42 MS. HINES: Objection. Speculation.
12:11:44 THE COURT: Sustained.
12:12:01 MR. EGAN: Thank you. No further questions.
12:12:03 THE COURT: Redirect?
12:12:04 MS. HINES: May I have just one moment, Your

12:12:08 Honor?
12:12:08 THE COURT: Sure.
12:12:28 MS. HINES: Your Honor, we have no further
12:12:31 questions.
12:12:31 THE COURT: Thank you. You can step down.
12:12:35 Shall we take a break for lunch?
12:12:38 MS. HINES: I think that might be wise, Your
12:12:41 Honor.
12:12:41 THE COURT: Unless you have a three-minute
12:12:43 witness?
12:12:44 MS. HINES: No.
12:12:45 THE COURT: We'll be in recess until 1:15. Thank
you very much.

(Lunch recess)

excused? I don't know if they want to leave. But are they going to be recalled for any reason?

MS. HINES: Not from the United States' perspective.

14:06:07 MR. EGAN: No anticipation from our side, either.

THE COURT: Okay. All right.

Should we take your next witness then? Or should we talk about what these damages witnesses and their exhibits show?

14:06:19 MS. HEALY-GALLAGHER: Whichever you prefer. I mean, the argument will go more with what you just heard.

THE COURT: I don't want to spend a lot of time on this, but I kind of need a picture of how this fits together, and I need a picture of what's wrong with it. So I think I'd

14:06:33 like to do that right now.

This is not the argument on disgorgement. This is an argument about what this accounting shows and which numbers make sense and which numbers don't make sense and why. What I'm trying to tell you is I'd like to hear 10 minutes rather

14:06:54 than 30 from each of you.

MS. HEALY-GALLAGHER: I certainly didn't have 30 prepared, so....

THE COURT: Okay.

MS. HEALY-GALLAGHER: Well, Your Honor, what you've

14:07:01 heard today is evidence that the United States is submitting

to support its reasonable approximation of the defendant's unjust enrichment. And as Your Honor has already ordered, that's all we're required to show when it comes to disgorgement.

14:07:17 So, for example, you heard from Mr. Roulhac that the defendants' own customer database contains a certain level of information about receipts that RaPower3 and perhaps also International Automated Systems has collected over time.

THE COURT: Well, it shows amounts booked as sale

14:07:45 prices. There's no column that talks about receipts; right?

MS. HEALY-GALLAGHER: Well, Your Honor, you're right. There's not a column that talks about receipts. But in the comments field there are comments about balances paid in full.

14:08:02 THE COURT: Right.

MS. HEALY-GALLAGHER: And then that number matches up to the number in the total column for a number of entries. So that's why we filtered for the word "full" with Mr. Roulhac.

14:08:13 THE COURT: Okay. You said that number compares with something else. So --

MS. HEALY-GALLAGHER: Sure.

THE COURT: The comment receipts with the word "full" was about $19 million; right? Or 17?

14:08:26 MS. HEALY-GALLAGHER: 17 million.

THE COURT: Okay. And what does that compare to?

MS. HEALY-GALLAGHER: So what we would submit is that if the comment box says, paid in full --

THE COURT: Uh-huh (affirmative).

14:08:37 MS. HEALY-GALLAGHER: -- and the dollar amount that says is paid in full matches the number in the total column and then that can be summed, that is one option for a reasonable approximation of the defendant's gross receipts.

THE COURT: Okay.

14:08:57 MS. HEALY-GALLAGHER: Now I want to point out that that number could be on the low side because we have information, Your Honor, that we will present that there are transactions with blank comment boxes that actually should be part of the gross receipts calculation.

14:09:15 THE COURT: Okay.

MS. HEALY-GALLAGHER: We will also show if you may remember we searched for certain customer names in this spreadsheet with Mr. Roulhac.

THE COURT: Right.

14:09:22 MS. HEALY-GALLAGHER: Those are customers of XSun Energy, for example, that are not reflected in that database. So that's why you heard from Miss Reinken about the bank deposits for this company because that's another option for reasonable approximation.

14:09:42 THE COURT: Okay. I've got two numbers out of the

database. I've got the gross sales price that was apparently listed in the customer database, then I have the filtered amount for those that use the word "full" in the comments field.

14:09:55 MS. HEALY-GALLAGHER: Right. And, Your Honor, I will say, I mean, as he testified, we collected that database on February 28th of this year.

THE COURT: Right.

MS. HEALY-GALLAGHER: So admittedly we haven't had 14:10:05 a full and robust opportunity to go through and absolutely mine for everything in there, because again, something might -- there may be deposits reflected in that spreadsheet that don't have a paid in full comment. So that, too, should be added to the gross receipts.

14:10:26 THE COURT: So then take me to the alternative information or additional information you provided me.

MS. HEALY-GALLAGHER: So today with Miss Reinken -- and I do actually want -- I want to take a step back because the reasons that you are hearing from Mr. Roulhac today, from 14:10:43 Miss Reinken with bank deposits is because we asked defendant --

THE COURT: I know that history. That's okay.

MS. HEALY-GALLAGHER: They didn't give us their QuickBooks, for example.

14:10:53 THE COURT: Right.

MS. HEALY-GALLAGHER: And you saw in notations in the comment box saying, added to QuickBooks or sent to QuickBooks. We don't have the QuickBooks.

THE COURT: Right.

14:11:02 MS. HEALY-GALLAGHER: So then, Your Honor, and, in fact --

THE COURT: So what's the next category of information I've got that will help me?

MR. HEALY-GALLAGHER: The next category of

14:11:13 information in particular is the bank deposits specifically to RaPower3, XSun Energy, SOLCO1 and I believe Cobblestone Centre. Now, we have the deposition testimony that Your Honor is going to read in the break, and that deposition testimony links up those entities with their deposits because it's

14:11:40 Mr. Johnson, who I would also note has not been here this afternoon, he testified that each of those -- for each of those entities they've never done anything but sell lenses. So that's why it helps support the reasonable approximation for the defendant's unjust enrichment that all of their

14:12:03 receipts are from lenses.

THE COURT: If I were to take those bank deposits in that time period from RaPower, XSun, SOLCO and Cobblestone Centre, what would I come up with?

MS. HEALY-GALLAGHER: I would need refer to the

14:12:22 charts, Your Honor.

THE COURT: Now surely someone on the team has that number on the tip of their tongue.

MS. HEALY-GALLAGHER: I'm afraid we don't. Can you give me a minute, please?

14:12:39 THE COURT: Okay. That's fine. So another method is by summing bank deposits.

MS. HEALY-GALLAGHER: That's right.

THE COURT: Are there any other methods that I overlooked here? There were tax returns in that summary.

14:12:50 MS. HEALY-GALLAGHER: There are tax returns. That, Your Honor, is more to reflect to the harm to the Treasury which goes to our injunction factors, so that Your Honor has a visible picture of what's happened here.

THE COURT: So you don't claim that's a measure of

14:13:06 disgorgement because disgorgement reflects what the defendants were doing, not what the injury is to the Treasury.

MS. HEALY-GALLAGHER: Right. There needs -- to be an injury, there needs to be an injured party. There needs to be unjust enrichment at the expense of a party. But that's

14:13:23 not the measure of disgorgement.

THE COURT: Okay. Those are the three categories of evidence I heard today; right?

MS. HEALY-GALLAGHER: Right. And I will say, too, Your Honor, the total number of lenses sold which we saw in

14:13:41 Plaintiff's Exhibit 742A and 742B, and really 742B is the more

updated version but we only got that I believe after we disclosed our trial exhibits, but 742B, again, when we're trying to arrive at a reasonable approximation of the defendant's gross receipts because of the way the defendants promoted the scheme they told people it was $105 as a down payment for each lens.

14:14:06

THE COURT: Right.

MS. HEALY-GALLAGHER: So if we take the total number of lenses sold and multiply it by $105 that's the bottom end or a potential bottom end of the disgorgement that the defendants could be liable for. And then, of course, defendants also told people that they had to submit $1,050 total per lens. So the top end of the disgorgement could be the total number of lenses sold times $1,050.

14:14:22

Now, of course, there is evidence that not everybody paid for every single lens in the amount of $1,050. But again, we do not have defendant's accounting records.

14:14:50

THE COURT: Can you remind me the number of lenses at the bottom of 742B?

MS. HEALY-GALLAGHER: That is 49,415.

14:15:08

THE COURT: Okay. That does not match the number of lenses at the bottom of the database; right?

MS. HEALY-GALLAGHER: That's right. And I have no explanation for that.

THE COURT: That was about 82,000?

14:15:21

MS. HEALY-GALLAGHER: 82,000.

THE COURT: Okay.

MS. HEALY-GALLAGHER: So I have no idea why we got this number from defendants through their counsel, but the database has a different number.

14:15:36

THE COURT: Okay.

MS. HEALY-GALLAGHER: So, Your Honor, because we --

THE COURT: As a humanities major I have enough to satisfy my curiosity. I'll apply an artful solution. I'm about to hear what's wrong with the art.

14:15:49

MR. SNUFFER: Your Honor, Josh Egan is going to address it because he's the one that briefed it, but I want to address one matter, and that is my understanding of the underlying database is that the only way that Glenda Johnson could modify it is to make a new entry. She couldn't remove, but she could add. And the gap between the 49,415 shown in one database and the 82,000 in the other database is because she could input but she couldn't remove, which was -- one of the entries we looked at was I think it was Matt Shepard, one,

14:16:07

14:16:33

and it was Matt Shepard and it was two, and it had the same number on both. He, in fact, did not buy one. He bought two. Therefore, the second was the correction, but the first remained.

My understanding is that that was the database that she was working with, and we're going to when we get to our

14:16:50

part of the case call her as a witness to address what she viewed as a massive database that she was trying to work with.

THE COURT: Okay. Well, I'll look forward to hearing that. That's a good preview. Thank you.

14:17:10 MR. SNUFFER: But Josh will address it.

MR. EGAN: Judge, when you initially asked for a commentary on this I believe you said you did not want to hear about disgorgement, but that's sort of where the conversation has gone to.

14:17:21 THE COURT: I don't want to hear about the document disgorgement. I want to hear about how these numbers relate to the eventual disgorgement question. But I want to know what these numbers don't show. So you were cross-examining on some weak points, and I want to run back through those, if we

14:17:36 can.

MR. EGAN: Absolutely. Gladly. Not only did I cross-examine but also so did Mr. Garriott, and I think there are a few things worth noting there, and that is that there's comments, if we are relying on these comments, there are

14:17:49 comments that show that there wasn't a full amount paid. And when we totaled the money in those columns, I don't have the number in front of me, but it did reflect something dramatically less than the total amount that the other exercise showed.

14:18:05 And really, if we compartmentalize each of these

three different sources, there are in our view isn't significant enough overlap to provide the reasonable approximation certainty required under the law. Again, not to go into what the law of disgorgement is, but disgorgement, a
14:18:27 person is only entitled to disgorgement to the extent that the plaintiff can show there was a gain connected to the illicit activity.

And here we have, in one compartment we have names of customers' lenses sold and some data that can be
14:18:45 manipulated a number of different ways to show gross receipts of anywhere from 17 million to over 50 million. And that's in one compartment.

And then you look at the Miss Reinken's summaries of the gross receipts. And in that category, you have
14:19:05 Miss Reinken counting deposit after deposit or anything coming in that didn't fit the exclusion that she defined. But there was no coordination with the -- with Mr. Roulhac's data.

So while, again, I think we would have a clearer picture and a sounder understanding of how these numbers work,
14:19:31 and again, it's not the defendant's burden to do this, it is the plaintiff's to come up with this number, and they had that information because they're the only party so far that has offered anything before this court.

And the last I'll say about the harm to the
14:19:44 Treasury, it does nothing to get us closer to disgorgement

because again, there's no evidence that any of the tax credits that any of these individuals received actually was deposited into any of the defendant entities or to the individuals. And again, it can only be a measurement of disgorgement to the extent that a wrongdoer alleged profited from this activity. So there has to be that connection made.

14:20:06

And quite clearly, Your Honor, there wasn't because that was not the scope of what that witness, Miss Perez was asked to do. Ms. Reinken's scope was limited likewise, and Mr. Roulhac also did not have any involvement in reviewing any bank records. So we have three separate pictures but no one person to bring it altogether.

14:20:24

THE COURT: Okay. That's very helpful for me. I I'm glad we spent this time.

What time is it? We haven't been in session long enough for a break, have we? Can we call the next witness?

14:20:38

MR. MORAN: Your Honor, the United States calls Robert Rowbotham.

THE COURT: Just pause right there at the podium for a second, and the clerk will administer an oath.

14:21:06

THE CLERK: Will you raise your right hand, sir?

ROBERT ROWBOTHAM,

called as a witness at the request of Plaintiff, having been first duly sworn, was examined and testified as follows:

14:21:15

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA,
Plaintiff,
vs.
RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1,LLC,R. GREGORY SHEPARD, NELDON JOHNSON and ROGER FREEBORN,
Defendants,

Case No: 2:15-CV-828DN

BEFORE THE HONORABLE DAVID NUFFER

April 20, 2018

BENCH TRIAL
DAILY COPY

PAGES 1202 -

Reported by:
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I N D E X

EXHIBITS RECEIVED INTO EVIDENCE

MR. SNUFFER: We have planned to call the following witnesses in the following order.

Richard Jameson as our first witness, Kurt Hawes as our second witness. Paul Jones as the third witness. Greg Shepard as our fourth witness. Glenda Johnson as our fifth witness. Matt Shepard as our sixth witness. And Neldon Johnson as the final witness. Obviously we have not yet heard the rest of the government's case.

THE COURT: Yeah.

16:07:07 MR. SNUFFER: And there are a couple of may calls. Depending upon how things unfold, we may need either Randall or Legrand Johnson. It depends on whether that viewpoint is going to be of any meaningful --

THE COURT: Okay.

16:07:30 MR. SNUFFER: -- utility in the case.

THE COURT: Mr. Jones was not offered as an expert witness; right?

MS. HEALY-GALLAGHER: That's right.

MR. SNUFFER: No. He's fact.

16:07:41 MR. PAUL: That's correct.

THE COURT: Okay. All right. Well, that really helps me a lot. We're working. We're getting through this. Trying to be diligent. I am trying to be diligent. You are being diligent. So we'll be back here Monday morning. And

16:07:59 Monday we're at 8 o'clock or 8:30?

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH

CENTRAL DIVISION

In re:	)	
	)	
UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 2:15-CV-828
	)	
RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON AND ROGER FREEBORN,	)	
	)	
Defendants.	)	
_____	)	

BEFORE THE HONORABLE DAVID NUFFER

April 25, 2018

Daily Bench Jury Trial

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For the Defendants:	Denver C Snuffer Daniel B. Garriott Joshua D. Egan Steven R. Paul Attorneys at Law Nelson, Snuffer, Dahle & Poulsen 10885 South State Street Sandy City, Utah 84070

I N D E X

E X H I B I T S

Q. (By Mr. Snuffer) I had asked you what the total cost was for development of the workable Fresnel lens?

A. I think it was roughly $14,000,000.00.

Q. How much of that was incurred before and how much of that was incurred after lenses were sold to the public?

MS. HEALY GALLAGHER: Objection, Your Honor. Mr. Johnson already testified he did not remember when lenses began being sold to the public.

MR. SNUFFER: This is a different question.

MS. HEALY GALLAGHER: Well, how can he answer this question.

THE COURT: You're using a benchmark that he doesn't know. Lay a little foundation for this question.

Q. (By Mr. Snuffer) How much of the $14,000,000.00 costs were paid for by you?

A. Most of the money was paid was I think was done by me.

Q. When you say most of the money was done by you, um, what do you mean by that? How do you -- how do you attribute that?

A. Well, it is just the money that I donated, I mean I put into -- I hired basically IAS to and its people to develop this. And so I paid IAS money which I never got any compensation back for and it was designated for the research and development of the various applications of the patents

that I had -- that I had developed. And so most of the money that went into IAS came from my personal savings or personal assets and so that is how the product became viable.

09:26:42 Q. Okay. Can I get the -- I want to refer you back to Exhibit Number 16A that's in front you and this time I want you to move to the 23rd page of that. At the bottom of it it has Ra08197 and also the number 23 at the bottom of it. There is a picture there of two lenses side-by-side do

09:27:13 you see that?

A. That is correct.

Q. And what -- what is this illustrating in the paper Exhibit 16A that you prepared?

A. It was a process in which the original Fresnel

09:27:27 lens technology was derived from it was I think developed in the 1600s mid to late 1600s by a man named Fred Fresnel, I think he was French. And what happened is that he found out that he could cut the -- most of the weight out of the lens. A traditional lens, as you see there, has a lot of weight to

09:27:55 it. By taking out facets of that angle, the lens itself, and then moving that just just the facets of the curve the bent curve on the -- on the number two side of the lens, you can see that the facets then will follow the curved portion only as cut and moved down and taking out. And so what you

09:28:26 have is the refractive angles duplicating in the traditional

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH

CENTRAL DIVISION

In re:	)	
	)	
UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 2:15-CV-828
	)	
RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1, LLC, R. GREGORY SHEPARD, NELDON JOHNSON AND ROGER FREEBORN,	)	
	)	
Defendants.	)	
_____	)	

BEFORE THE HONORABLE DAVID NUFFER

June 21, 2018

Daily Bench Jury Trial

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For the Defendants:	Denver C Snuffer Daniel B. Garriott Joshua D. Egan Steven R. Paul Attorneys at Law Nelson, Snuffer, Dahle & Poulsen 10885 South State Street Sandy City, Utah 84070

Salt Lake City, Utah June 21, 2018

(8:00 a.m.)

THE COURT: Good morning, counsel. We're convened with counsel. I don't see any parties present yet on your end. Right, Mr. Snuffer?

MR. SNUFFER: No, they're not.

THE COURT: Okay. All right. So I have got some things I want to talk about with scheduling but I thought I would turn to counsel and see if there were other preliminaries that we needed to handle.

Ms. Healy-Gallagher?

MS. HEALY-GALLAGHER: Thank you, Your Honor, good morning. The one thing that I had was anticipating obviously that we're here for our final trial setting, I was curious if Your Honor had had a chance to think about what you would like for closing.

THE COURT: Yeah, I will talk about that in a few minutes.

MS. HEALY-GALLAGHER: Okay. That is all I had.

THE COURT: Okay. Mr. Snuffer?

MR. SNUFFER: Um, before the sun came up this morning, it was a long night, um, the decision was made by the defense that we are going to rest and we are not going to call any witnesses. And I don't know how that will effect what you're about to discuss, but I want to put that on the

record right now at the earliest opportunity. The order you issued on Monday had a great deal of -- it provoked a lot of discussion on our side of the table, but this morning we have concluded we will just rest at this point.

08:01:43 THE COURT: All right. Let me tell you what I was going to say and see if that changes your decision.

MR. SNUFFER: Okay.

THE COURT: What I was going to say is that we are at 100 percent of budget in this case. We have been going for

08:01:58 10 days. We had some interns engage in the exercise of checking trial transcripts to determine how much time in examination of witnesses had been consumed by plaintiff. 32 hours. How much time in examination of witnesses had been consumed by defendants. 27 hours. We have 7 days set

08:02:25 for the balance of this case so we will be 70 percent over budget. I am just trying to lend some perspective.

I would like to reserve the last half day for closings. I was going to ask the parties to confine their closings to an hour-and-a-half each, which is a short time

08:02:46 for a 16-day trial, but I think it can be done.

I was going to allow one day for rebuttal. So that takes one and a half days out of our time and leaving five and a half days for the defense case. And I issued an order 407 requesting that the defense provide a time budget that

08:03:17 would show the examination of witnesses by the defendant and

then allow 60 percent of that time for cross-examination and re-cross by plaintiff. And by my calculations, if you take the five and a half days left, with the schedule of 8:00 a.m. to 4:00 p.m. each day, less an hour-and-a-half for
08:03:43 a 15-minute break in the morning and a 15-minute break in the afternoon and an hour for lunch, which I know sometimes I have cut you short on, that leaves 37 and three-quarters hours left for testimony.

If you break that down so that the defense has time
08:04:03 for examination of plaintiff is limited to 60 percent of that time, which is far less than the proportions to date with direct and cross and redirect and re-cross, out of that 37 and three-quarter hours about 22 hours would be consumed by defendant and about 13 hours would be consumed by
08:04:25 plaintiff. And there is some rounding errors there which leave a whole 45 minutes that we could just spend doing whatever we wanted.

But there is also argument and there is also things like this which are burning the clock. I asked in the order
08:04:47 denying the motion to continue trial number 407 for a proposal by defendants outlining their witnesses and the anticipated time that they would consume and a total of 64 and a half hours was proposed. 30 hours for defendant direct, 27 hours for plaintiff cross, and seven and a half
08:05:12 hours for redirect and re-cross. No time for a case in

rebuttal or for closings. But 64 and a half hours is far more than we would have even if we used all seven days for testimony.

In fact, that is more time -- it is almost more time than we spent to date in 10 days. And we were going long days some of those days past four.

The schedule proposed did not fit the time allowed. For example, today 10 hours of testimony was proposed. Tomorrow 21 hours. Monday and Tuesday there were some blanks but it was at least 18 hours for those days. Wednesday at least 11 and a half hours with the question mark if Mr. Gregory Shepard is able to join us, and I hope he is, to testify. And then Thursday four hours. So it just didn't fit the time we have available.

So I was going to impose the time budget to allow the defendant 22 hours of examination for today, tomorrow, Monday, Tuesday, Wednesday and half a day Thursday. And the plaintiff in that series of days will have only 13 hours. And then plaintiff would have a day of rebuttal. Divided three hours for plaintiff and two hours for defendant. And we would allow each party an hour-and-a-half for closing on the 30th, on the last half day. So the total time consumed in trial would be for plaintiff, the 32 hours spent to date in examination, 13 additional hours, and three hours in the rebuttal case for a total of 48 hours. The total for

defendant would be 27 hours to date, 22 hours in the next five and a half days, and two hours in the rebuttal case. So all that time in examination would be 51 hours for the defendant in excess of 48 hours for plaintiff.

08:07:27 Does that change your position, Mr. Snuffer?

MR. SNUFFER: Well, no, it does not. If these kinds of case management measures were going to be imposed at the outset of the case and equally upon both the plaintiff and the defendant, that would have changed everyone's trial 08:08:00 strategy on both sides. It was not done. As a consequence of that, changing the rules in which case management will go forward at the moment the defense is about to commence, when the plaintiff was essentially allowed to be such a spendthrift with the first part of this case that they 08:08:37 exhausted the entire trial schedule, the budget as you have referred to it, 100 percent having been consumed during the plaintiff's portion of the case, they didn't have the same strictures put upon them that the defense is and we have gone round and round since we saw the -- since the order on 08:09:08 Monday. It reached a crescendo yesterday. We had to file something. You gave us a deadline and we did file something. But your response to the unworkability of the schedule is an extension of the discussion on our side of the table that has gone on any way. And we submitted it, we 08:09:34 met the deadline, but this morning I think we're -- we're

content at this point to simply rest and go forward at this point with wrapping the case up.

THE COURT: So of the time you proposed, which added up to 65 hours roughly, if we were to finish the case on your schedule, it would take 12 days and we have seven and then we would have to have some time for rebuttal and some time for closing. Right?

08:10:03

MR. SNUFFER: Yeah. Yeah, it's a problem.

THE COURT: Okay.

MR. SNUFFER: And I'm not -- I'm altogether sure. A lot goes into a decision for the defense including the challenges that we have with the witnesses and the desire the witnesses have to inform the court. These people are not accustomed to the strictures of questions sharply focused to elicit a topic limited to the scope of the question and providing a response that is as equally tightly confined.

08:10:21

08:11:03

THE COURT: That, by the way, was a very focused sentence and I understand exactly what you're saying about your witnesses. I was here. You were here.

MR. SNUFFER: I was yelling at my client.

THE COURT: I wasn't going to say that.

MR. SNUFFER: Yeah. And so I honestly -- I have tried to have conversations. I have tried to manage the witnesses to see what I could get. And in all candor, even with what

08:11:26

08:11:49

we provided yesterday, I have no clue how long it would actually take.

My conclusion is that the cost benefit of, at this point, going down that road is -- I think you have got a 08:12:13 fair idea of where the parties are. I think you have a fair idea of what the facts are. I think you have a fair idea of what the scope is. There is a great deal in this case that simply is not at issue or in dispute between the parties. There is just the questions of what does it all mean. 08:12:31 And what does it all mean I'm not sure at the end of seven more frustrating days of testimony is going to put any of us in the proper humor to be able to dispassionately figure out what does it all mean. Because at this point, my people are selling lenses and they're saying some things in connection 08:12:57 with this sell of the lenses that the government disapproves of and thinks runs afoul of certain regulatory requirements.

That's not going to change. There is perhaps nothing that will be done other than more wrestling matches with the witness stand between here and the conclusion. And faced 08:13:22 with a deadline that we all intend to meet, I don't think I can meet it. I don't think the witnesses are capable of cooperating sufficiently for me to meet it. They passionately believe in what they think and are doing and they really want to expound on that. They have the view 08:13:49 that it's more important for you to understand than it is to

answer a question. And that -- I don't know if you were ever in practice with a challenge like that.

THE COURT: Oh yeah.

MR. SNUFFER: But you can't -- you can't train 71-year old people.

08:14:08

THE COURT: I was in a mechanic's lien case, now we have time I'm going to swap stories with you, and it came out on the stand, in trial, that the basis of his contract, which he had always told me was cost plus ten, was his assumption that that is what it should be.

08:14:25

MR. SNUFFER: Oh my word.

THE COURT: Yeah. So --

MR. SNUFFER: And you tried not to look surprised.

THE COURT: I tried not to drop dead. I had another motion for a sanctions order where my client and his IT staff had told me this report opposing counsel was asking for could not be generated. But when they got in an evidentiary hearing in front of the judge oh, we can do that, was the answer. So I have been where you are at. Okay.

08:14:40

08:15:00

MR. SNUFFER: Yeah.

THE COURT: Anything else you want to tell me?

MR. SNUFFER: I was so surprised by some of the answers I got from my own client on the witness stand that I -- I actually did not understand his answer until I got

08:15:11

the transcript and read it. It was a pretty good answer, but I didn't hear it because it was so unexpected. I thought I knew what the client was going to say. So, yeah, I'm -- at this point we rest.

08:15:29 THE COURT: Okay. All right. Ms. Healy-Gallagher, do you have any advice for me? And then after that how many days do you want for closing. That is not what I'm going to offer.

MS. HEALY-GALLAGHER: Um --

08:15:42 THE COURT: By the way, I finished the written submissions that you each gave me after the argument on the motion, the motion at the end of plaintiff's case. I finished all of that last week so you know. Anyway, what -- what advice do you have for us?

08:15:56 MS. HEALY-GALLAGHER: Well, of course, it is the defendant's choice about their manner and of case presentation. What I would ask, because of course this is unexpected for us as it is for everybody, excuse me, is that we do closings no earlier than tomorrow morning so that we

08:16:18 have the opportunity to put something together that is concise and appropriate for Your Honor.

Along with that, I think an hour-and-a-half is still appropriate. If there is anything in particular, you mentioned a couple of times throughout trial that there were

08:16:41 perhaps specific topics that you were interested in argument

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA,
Plaintiff,
vs.
RAPOWER-3, LLC, INTERNATIONAL AUTOMATED SYSTEMS, INC., LTB1,LLC, R. GREGORY SHEPARD, NELDON JOHNSON and ROGER FREEBORN,
Defendants,

Case No: 2:15-CV-828DN

BEFORE THE HONORABLE DAVID NUFFER

JUNE 22, 2018

BENCH TRIAL

PAGES 2396-2534

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head, but I can definitely research that and submit it.

THE COURT: Okay. All right. Thank you.

I appreciate counsel giving me the materials that were sent to me over the noon hour. That's all my questions. Thanks.

MS. HEALY-GALLAGHER: Thank you.

THE COURT: I want to thank counsel for their responsiveness, their adaptation to the changes in schedule. As the parties have both said today, many of the facts in this case are not at issue. It's the effect of those facts that are at issue, and I guess it's my job to define the effect of those facts.

At the outset I'm denying Docket Number 394, the motion to dismiss; and Docket 401, the motion for judgment as a matter of law, both made under Rule 52(c).

The meaning of this case in a sentence is minimal investment of money for outsized tax benefits. That's the foundation of everything that runs through this case. The defendants' enterprise is one of massive scope. The best evidence that I have shows over $50 million in revenue has been received without any productive result except allowing customers to take at least $14 million in tax benefits from the United States Treasury.

It appears that defendants may have sold as many as 50,000 in lenses, which at the usual market price of $3500

each would potentially yield $175 million in revenues. I have not attempted to calculate the effect of the March 27th, 2018, letter informing every lens user that they got more lenses and inviting them to take more tax credits.

13:53:31 But the numbers tell us that this is a massive fraud on the defendants' customers, many -- well, I should say some of whom have cases pending against them in tax court, the minority. But it's also a fraud on the American people who have effectively paid to operate defendants' enterprise.

13:53:51 And an injunction will issue, and disgorgement of revenues will be ordered. This enterprise involves great effort and has broad customer support. Mr. Johnson has patents for many components which may function separately or two at a time. But the project to create a useful product

13:54:12 from solar energy has no sound scientific basis as a whole; has no demonstration of economic viability, not even the barest evidence; and does not qualify lens buyers for federal tax credit or depreciation deductions.

Mr. Johnson and other defendants have created an

13:54:34 aura of success by several websites, operating components, a large physical site with impressive construction, intense marketing and communication, but this enterprise is destined to fail by the lack of sound scientific, engineering, utility and management expertise. This is an amateur integration of

13:54:59 tax law, engineering and multilevel marketing enabled by the

defendants' universal rejection of all conventional authoritative expertise and process. It's a hoax funded by the American taxpayer through defendants' deceptive advocacy of abuse of the tax laws.

13:55:21 Enforcement of this -- of the law has been excessively been delayed. Although less than 100 individual tax audits and tax court appeals by my count are underway or have been completed, the government has taken too much time in effectively shutting down defendants' operations. This is in 13:55:40 some part due to the unique nature of defendants' enterprises, the multiple entities used by defendants, the shifting use of entities, the disbursement of thousands of customers across the United States, the remote location of the defendants' physical site and the lack of cooperation by defendants in 13:55:59 providing information in the litigation discovery process.

This delay does not weigh in the merits of the case, but it has aggravated losses to the Treasury, increased the revenues received by the defendants and emboldened the defendants to continue operations. Just days before trial 13:56:18 started they directed customers to take tax credits on lenses defendants distributed at no cost. The RaPower3 website still uses all the arguments and appeals at issue now adjudicated in this case as deceptive.

Mr. Johnson's qualifications by experience or 13:56:41 formal education are insufficient to support a theoretical

analysis of his proposed solar energy project. He has no degree and has never designed or constructed an entire solar energy project and has not published even on portions of his work except in promotional materials.

13:57:02 As one small example of Johnson's simplistic and erroneous understandings it is his impression that the local power company is required by law to allow connection of solar generation to the grid. This is true only of a very small scale renewable energy projects and is still subject to very 13:57:21 specific rules including state tariffs for which he has made no effort of qualification and he's made no other effort of contract negotiation.

While Mr. Johnson claims to have information and evaluations from professionals in many areas of technical 13:57:39 expertise required for solar energy production project he refuses to identify these experts, has provided no identification, has no reports from them.

Mr. Johnson and Mr. Shepard repeatedly received advice from tax professionals that the tax benefits they 13:57:57 sought for customers were not available. They shopped for the opinions they liked. They concealed facts from the few professionals who told them their efforts might have some merit. Contrary to instructions from tax lawyers, they posted and disseminated drafts in limited memoranda in a deliberate 13:58:18 attempt to mislead the public, and they refused to remove them

when the authors demanded removal. This demonstrates defendants' purposeful dishonesty.

Johnson and Shepard drafted summaries and glosses on the memoranda that misrepresented them. Defendants' web page represented the truth about tax law as the defendants simultaneously emphasized the project's goal is to eliminate the customers' tax liability. Suddenly after audits commenced, the tune changed to advocacy of clean energy for America. But none of that appeared in marketing materials prior to the commencement of audits.

The disclaimers buried in defendants' websites have no real effect by virtue of their language and by virtue of the overwhelming predominance of false information about tax law on the websites.

Greg Shepard ignited Neldon Johnson's enterprise with multilevel marketing. Shepard is a master marketer who amplified the information that Johnson provided to fit the sales need. The combination of incentives from multilevel marketing fees and tax benefits energized sales. Johnson, the claimed scientist, engineer and project designer distorted tax issues to fit his plan, and Shepard experienced in marketing overstated the tax and scientific issues and operational facts and misstated and exaggerated this bad advice in volume and content. Shepard has repeatedly glowingly reported that the project is about to create power. For many years promises of

power next month have been repeated so many times.

Shepard was key in his literature in preventing any careful reading of the Kirton McConkie and Anderson opinions by his overstatement of their contents in letters, marketing materials and on the website. He was repeatedly confronted with the truth but rejected it and continued to advocate the falsehoods about the project and its tax implications.

Mr. Johnson is the center. He has a central control of every entity in his solar energy enterprise, which has any business activity and has interest in other entities which are managed by other persons, but those entities have been shown to have no business activity. He alone makes decisions about businesses.

Relationships and responsibilities are most often undocumented. Checks have been written from entities with no apparent obligation to make payment to persons with no obligation to receive payment from those entities. His network of entities seems to morph, disappear and reappear without any reason other than his discretion. While contractual documents assigned obligation to entities, those obligations transfer without documentation. The agreements between the entities and customers refer to many documents to defining obligations such as the safety and operating guidelines referred to in the O&M agreement or the routine O&M services referenced in the agreement. But none of those

standard or referenced documents exist.

Defendants have failed to demonstrate this project can actually function, and plaintiff has demonstrated that it cannot. Defendants have failed to demonstrate that this project has any possibility of creating revenues. Plaintiffs have demonstrated that it cannot. While defendants have assembled a large staff, site and equipment, built massive structures and demonstrated functionality of some components of the energy project, it's a Potemkin project. They have carefully avoided any integrated function of a test site or model project. The many project components which are all unconventional, largely self-invented have never been assembled into a successful end-to-end working model partly because the components are regularly redesigned and perpetually changing.

Johnson claims to have performed tests and produced power but has no records or witnesses to substantiate his claims. Johnson testified that the technology as currently designed has never been fully operational.

Shepard testified that he has seen the lenses produce solar process heat but, quote, I am not sure that I have seen everything work simultaneously to produce electricity, close quote. Shepard has also testified that Johnson has said that Johnson has seen everything produce electricity in doing research and development, but there is no

documentary evidence. Shepard testified that to his knowledge no lenses are putting solar electricity on the grid. Defendants have no evidence that revenue has been produced from any of the project components.

14:03:41 The project site has towers full of lenses arranged in four circular arrays per tower with 34 lenses in each circle and sheets of uncut plastic in a warehouse without any active solar collector, heat exchanger, generator or transmission line interconnect or any effective continually

14:04:02 operating connections between any of those or any connection to a power grid. Revenues might accrue to lens owners if power was produced. And because power production is not possible with any designs to date power production has never taken place and there is no revenue. The field of towers

14:04:24 creates the illusion of effort and success.

The only scientific evidence presented at trial is it that the system will not work and that if it did work overlooking all its untested impossibilities it will not produce electricity at a rate of return that would be

14:04:46 commercially acceptable even assuming generous tax benefits.

Johnson 's methodical avoidance of system components, interconnections and testing conceals the ultimate fraudulent reality of a system and its business. The defendants know there is no factual support for a stable

14:05:06 project but represented to the contrary. In spite of being

under development for 13 years and taking massive tax advantages this project has no production. No contracts are in place for sale of an energy product or any solar product. Normally an energy production product of this size would be financed by commercial entities, but that would require economic viability demonstrated to assure lawyers, bond issuers and commercial investors of some sophistication. But defendants have preyed on the unsophisticated small investors.

How can a project without a viable product be so successful as to generate sales of 50,000 products and $175,000 in contracted obligations and $50,000 in payments to defendants. Deceptive advocacy of tax benefits is the key. A customer who puts down as little as $105 is able to take $1050 in tax credits, and in an example in 2012 on Exhibit 496 also take a first year depreciation deduction of $1,785. Over a 10-fold return on investment is achieved in the first year.

The business model and marketing materials were carefully designed to generate the appearance of tax benefits that outweigh cash outlay and, in fact, they have done so. Most customers have never paid the $3500 cost of a lens and few have paid the $1050 down payment which is equal to the first full year tax credit. As the marketing material states, earn money from your federal income tax. Zero percent of your own money invested. With this program, you pay no federal taxes. In fact, full participation makes you tax free till

2020.

The abuse of tax benefits has warped defendants' model. They fund every component of the project, generators, towers, frames, heat exchangers, concentrators, salaries, equipment, through the inflated lens price which they can exact by promising a tax credit many times greater than or at most equal to the maximum down payment. If not for the tax credit, it is highly doubtful that any investor would pay 70 to 400 times the value of a piece of breakable plastic which has no energy production capability of its own. The lens is a small, low value almost disposable components of an unproven energy production system. Sheets of plastic sitting on pallets in a warehouse uncut, ungrooved are clearly not used in a trade or business or placed in service or solar energy property. Lenses in frames or towers with no realistic possibility of producing power or revenue are not qualified for favorable tax treatment.

When the only cash of an organization comes from investors it is a signal that it is not a trade or business and likely merely a scheme to defraud.

Mike Penn, a purchaser of lenses first heard about the lenses from his tax preparer. He didn't do any research and woke up late on the last day of the year to purchase lenses that entitled him allegedly to tax benefits and click the button before midnight, as he said. He never paid for

anything, and nothing ever happened to him for failing to pay.

He did it again the next tax season. Penn testified that it was presented to him as a tax incentive but not as an investment. He looked at it as a tax viewpoint and
14:09:20 received no revenue.

The customers bought lenses created from sheets of Lucite costing less than $100 which were then cut into two and so inexpensive that when the customer's $3,500 breaks it is replaced free of charge. No customer testified that they had
14:09:41 ever seen their lens or could identify their lens. No evidence was produced that this sort of identification was possible.

Customers were happy with the overstatement of value that allowed excessive tax benefits. RaPower customers
14:09:58 are not concerned with details. Their testimony stated that they knew that technology worked because they've known since they were little children that you can take a magnifying glass and create heat and that the technology just made sense, that they felt heat when they put their hand underneath a lens and
14:10:18 they witnessed boards being set on fire. Not one of these customers testified that they had any evidence that these lenses could place actual power on the grid or generate revenue, and few of them even asked.

This case has a disturbing undertone. It's one
14:10:37 thing to believe in the underdog, the innovator, the

disruptor, but rejecting expertise on the basis of homespun, untested wisdom on highly technical topics is very dangerous. If we allowed manufacturers to build projects or products without regard to safety standards or food manufacturers to produce food without sanitation or safety standards, we would place society at risk. But individuals seem attracted to unconventional counter authority advocates, and they do so putting themselves in our institutions at risk.

14:11:00

14:11:15

14:11:38

14:11:54

14:12:14

This case echoes of the serious affinity fraud problem we have in this state. The same psychological motivations and willingness to believe contrary to conventional established facts underlie all these schemes that prey on individuals who are ill-prepared and can ill-afford a downside by promising a massive unreasonable upside. An injunction must now be entered to stop the losses and establish the truth.

The defendants' multilevel marketing strategy has further enrichment of their customers and investors. Representatives of that group and employees are defendants' only supporting witnesses. Some who testified on cross-examination in favor of defendants are under threat of audit and IRS and state tax commissions. If defendants fail as they have in this case these customers face significant tax consequences equivalent to their credits and deductions taken over many years purchased with their very small down payment

on an inflated purchase price. These people could not turn their back on their benefactor, and their non-credible testimony shows that they're bias -- shows their disabling bias because their financial lives are at stake.

14:12:43 Now, next week I will provide plaintiff's counsel with my notes from trial, my selected notes from trial, and from the deposition designations which I reviewed reflecting facts I've specifically found, as well as a somewhat edited version of the plaintiff's proposed findings of fact and

14:13:03 conclusions of law. Could we distribute these documents?

Copies will be sent to defendants' counsel. Plaintiff's counsel will integrate these materials as appropriate and proposed revised findings of fact and conclusions of law to me by a certain date.

14:13:20 How long will you need to do that?

MS. HEALY-GALLAGHER: Do you mean within the next week?

THE COURT: By a certain date. I'm giving you -- we're going to negotiate now.

14:13:35 MS. HEALY-GALLAGHER: Well, obviously, Your Honor, we would like to do this as soon as possible. I can make every effort to have something turned around by --

THE COURT: Let me just pause for a minute. I just -- we're going to come back to schedule here. I just put

14:13:49 a draft order on your desk. This order is very summary, but I

think it complies with Rule 65(d)(2). It lays out the reasons why it issued, it states its terms specifically, and it describes in reasonable detail the acts restrained or required without referring to other documents.

14:14:19 I intend to enter a limited injunction today which is laid out at the bottom of Page 3, top of Page 4, that all tax information must be removed from all the websites. And I want a declaration of compliance by next week. We've got to get this stuff off the web.

14:14:41 Now, I'll give you a chance to review that. So sit down and take minute, and then I want to talk about a schedule for a more broad order.

(Time lapse.)

MR. SNUFFER: Can I comment about this?

14:17:24 THE COURT: Let's make sure everyone is done reviewing this so we're only doing one thing at a time. But, yes, you are going to be able to comment on this. I just meant not now.

(Time lapse.)

14:18:23 THE COURT: Are both sides ready to talk about this?

MS. HEALY-GALLAGHER: Yes.

THE COURT: Okay. Mr. Snuffer, let me hear first from you.

14:18:29 MR. SNUFFER: I have a client who is fully

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Frequently Asked Questions

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Sponsoring Questions

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1. Why do I need a Sponsor to buy lenses?

First, your sponsor will receive a commission when you purchase systems.

Second, your sponsor can answer questions now and in the future. If not, then his or her sponsor.

2. How can I look at the contracts and agreements before I buy?

Go to our Buy Now page. There you can see all of the documents.

General Questions

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1. In a nutshell, what is the RaPower3 deal?

RaPower3 has solar energy lenses one can purchase. Benefits include rental income, bonuses and tax credit/depreciation benefits that give an impressive return. There are also sales commissions available.

2. Who owns the technology?

International Automated Systems (IAUS).They give RaPower3 the right to sell their lenses.

3. Are there any patents?

About 26 patents and 50 patent pendings covering a number of IAUS technologies as of September 2014. IAUS has both national and international patents.

4. Does RaPower3 have a business licence in my state?

Yes. RaPower3 has current business licences in all 50 states.

5. Does the RaPower3 Solar Project have permits?

Yes. You may view the permit here.

Plaintiff Exhibit 1

A Deseret News article published in Dec 2013 stated that RaPower3 does not have required permits; this is not true. Please refer to our response to this article here for further information. You may also view the county's letter stating our compliance here.

6. Can you define all the different watt terms?

A thousand watts = one kilowatt.
A thousand kilowatts = one megawatt.
A thousand megawatts = one gigawatt.

In the United States, one megawatt of energy would roughly meet the needs of a town of one thousand people. The terms of the cost per kilowatt hour can be different.

For example, an agreement to get ten cents per kilowatt hour (kWh) means for every hour that we produce one kilowatt we would get ten cents. Therefore, if we were able to produce energy at the rate of 200 hours a month, then we would receive $20 per month per kilowatt or $20,000 per megawatt or $2M per month for a 100 megawatt project.

7. What are the British Thermal Units mentioned in the RaPower3 contract?

The British thermal unit (symbol Btu or sometimes BTU) is a traditional unit of energy equal to about 1055 joules. It is approximately the amount of energy needed to heat 1 pound (0.454 kg) of water from 39°F to 40°F (3.8°C to 4.4°C). The unit is most often used in the power and steam generation industries. And, so it is with RaPower3. The solar lenses will heat the water to a very hot temperature creating steam which makes the turbine turn. BTUs can be mathematically converted to kilowatts. This conversion equation is important in maintaining RaPower's agreement with purchasers.

8. What are the RaPower3 contracts?

When you sign up by filling out the Distributor Application Form to purchase your solar lenses, you also electronically sign three other contracts and/or agreements. These three contract/agreements are with three different entities.

a) Your Equipment Purchase Agreement is with RaPower3.
b) Your Operation and Maintenance Agreement is with LTB,LLC.
c) Your Bonus Referral Contract is with IAS (International Automated Systems).

This was done in order for you to receive the maximum benefits possible and to insure your ability to claim all of your tax credits and depreciation as outlined.

RaPower3 Team Members can look at and print out their agreements by going to rapower3.com and logging into the Back Office. You will need your USER NAME that you created when you signed up. We suggest you print out a physical copy for your file and another copy for your tax preparer.

Tax Questions

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1. What are the tax forms used for the solar energy tax credits?

You can access the solar energy tax forms 3468 and 3800 by going to irs.gov. In the upper right hand corner there is a search engine; just put in the form number. After the above forms are filled out correctly, then the tax credit number goes on line 53 of your 1040 form.

2. What tax forms are used for the depreciation?

IRS Form 4562 and Schedule C. The depreciation from 4562 becomes a Net Operating Loss (NOL) on Schedule C and then that figure goes on line 12 on your 1040 form.

3. How are the tax credits and depreciation calculated?

The purchase price per lens is $3,500 so you simply take 30% of that, which=$1,050 tax credit per system.

For depreciation, take half the tax credit ($525) and subtract that from the purchase price, which= $2,975 depreciation per system.

4. What are the depreciation requirements?

To be depreciable, the property must meet all of the following requirements: (Our RaPower3 solar thermal lenses easily meet these four requirements) 1. It must be property you own; 2. It must be used in your business or income-producing activity; 3. It must have a determinable useful life; 4. It must be expected to last more than one year after being placed in service.

5. When can I start claiming my depreciation?

A taxpayer can start claiming depreciation of an asset as soon as his or her property is placed in service. Property is placed in service when it is ready and available for a specific use, whether in a business activity, an income-producing activity, a tax-exempt activity, or a personal activity. This does not mean you have to be using the property; just that it is ready and available for its specific use. The Placed-In-Service letter and Bonus Referral Contract that you will receive after you purchase your systems verifies this.

If the equipment is ready and available for ANY income producing activity, including leasing it out for advertising purposes, the owner may start claiming depreciation on the asset. This is what we give you with the Bonus Referral Contract. Your solar thermal lenses qualify for the 50% bonus depreciation in 2012, 2013 and 2014 as the above standards have been met. You use the standard 5-year double declining balance depreciation method for 2014.

6. I know I have to materially participate in my solar energy business to be considered non-passive so I can claim the depreciation. Do I have to spend 500 hours a year to be considered active because I really can't do that?

No, you do not have to spend 500 hours to qualify for material participation. Here are the guidelines taken from irs.gov website: If the taxpayer and/or the spouse meet any of the following, he materially participates and income is non-passive and should not be on Form 8582, triggering passive losses:

1. Did taxpayer work more than 500 hours a year in business?
2. **Did taxpayer do most of the work?**
3. Did taxpayer work 100 hours and no one worked more?
4. Did taxpayer work 100-500 hours in several passive activities, the sum of which exceed 500 hours?
5. Did taxpayer materially participate in the activity any 5 of the prior 10 years?
6. If the business is a personal service activity, did he materially participate in any 3 prior years?

Most RaPower3 Team Members qualify under guideline #2. Almost all of our RaPower3 Team Members work by themselves in their solar energy business. They have no employees and therefore, they do all or most of the work involving their solar energy business. So these team members usually don't spend 500 hours on their business, but qualify anyway under guideline #2 because they do most of the work.

7. Will the lenses I purchased be Placed In Service?

Yes. You will get a Placed-In-Service letter e-mailed to you in late February 2015 stating that fact. We suggest you make a copy of the letter and give it to your CPA so it's on file for his/her records.

8. How and when did all these amazing tax benefits come about?

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 included provisions that allow businesses to elect 100 percent depreciation through 2011 and a 50 percent bonus depreciation through 2013. This bonus deprectiation is not available for tax year 2014 or later unless extended by congress.

On October 3, 2008, the House of Representatives passed H.R. 1424, the Emergency Economic Stabilization Act of 2008 by a vote of 263-171. Soon after, President Bush signed the bill into law. The U.S. Senate passed its own version of the bill on Oct. 1, 2008. In the bill are a number of provisions supporting energy efficiency and renewable energy, including all of the solar incentives advocated by SEIA (Solar Energy Industries Association).

This package includes an 8-year extension of the 30% commercial solar investment tax credit, completely eliminates the monetary cap for residential solar electric installations, and allows utilities and alternative minimum tax (AMT) filers to take the credit. Therefore, RaPower3 will offer the tax benefit program through the purchasing of its solar thermal lenses until the end of the year 2016.

9. What can I do with the Kirton-McConkie tax attorney memorandum? I noticed it referes to SOLCO1, so how can RaPower3 Team Members use this letter?

SOLCO1 is an entity that deals in bigger commercial projects but is owned by RaPower3. Thus, all our RaPower3 Team Members are allowed to use and rely on this tax attorney memorandum. You should make two copies: one for your file and one for your tax preparer. The letter gives a number of references stating why RaPower3 tax benefits as outlined are following IRS tax codes and law.

10. There is also the Anderson tax attorney opinion letter. Since the Kirton-McConkie memorandum is newer, should I just use that one or use both?

Use both. The Anderson tax attorney opinion letter is your best resource in claiming your depreciation. You let IAUS use your lenses for advertising purposes and did so by the Bonus Referral Contract with your compensation tied to the gross sales of IAUS (International Automated Systems). This means you were using your lenses for a money making purpose. Therefore, your lenses were "placed into service" under the guidelines for Depreciation, which are different than the "placed into service" guidlenlines for your tax credit.

11. What if I purchased before the tax attorney letters were written?

It doesn't matter. Both letters are considered retroactive.

12. What code do I use on Schedule C and what is the type of business?

Use the code number 532400 and the type of business is Equipment Rental Services.

Technology Questions

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1. What are the breakthrough technologies?

There are nine breakthrough technologies that should propel RaPower3 to the forefront of our nation's energy needs.

- Solar Thermal Lenses: These highly patented solar lenses are made of plastic and can be inexpensively mass produced. This Concentrated Solar Power (CSP) system is the only technology that uses the highly advantageous refractive approach rather that a reflective approach.
- Jet-Propulsion Turbines: These highly patented turbines can be inexpensively mass-produced. Our turbines are also scalable. This means projects can be built using many small turbines rather that one large one. Finally, our turbines are more efficient and can work with a lower grade of steam with a further advantage of being water tolerant.
- Dual-Axis Tracking System: Tracks the sun both horizontally and vertically creating greater efficiency. One laptop computer can regulate tracking the sun precisely with a thousand or more towers at the same time.
- Framing of the Solar Lenses: Able to withstand winds up to 90MPH. This is far more than our competition.
- Heat Concentrators: This boosts temperatures into the 2,500 degree range which is necessary in mass-producing inexpensive zinc batteries.
- Heat Exchangers: This highly patented technology reduces the size of current heat exchangers on the market by one thousand times thus reducing the cost exponentially.
- Biomass Burner: This patented technology burns any kind of biomass, waste or garbage with zero emissions. Our system is far more efficient and less costly than out competitors.
- Dynamic Voltage Controller (DVC): This highly patented and guarded technology efficiently and smoothly regulates different and fluxuating voltages. This control board can be mass-produced and will have multiple remarkable life-changing uses with a variety of industries. See **VIDEO**.
- Capacitors: This will revolutionize the electric car and energy storage industry. More on this later.

2. What is the significance of these combined technologies?

We have the answer to our nation's energy needs and this answer is available in 2015. Our answer includes all three essential dynamics for changing the energy equation. First, we have the lowest installation costs of any energy source. Second, we have the lowest cost of operation of any energy source. Third, we can mass- produce every component in practically limitless quantities. In a nutshell, our combined technologies have the potential of significantly changing the energy requirements of transportation, homes and businesses.

3. Why can RaPower3 members only buy solar lenses?

Buying only the solar lenses gives our members versatility in claiming their tax benefits. Also, the tax benefits are based on providing solar process heat. Only the solar lenses can do that.

4. Will there be other products for RaPower3 members to buy in the future?

Possibly. There are some really cool technologies and products that will be released by International Automated Systems in the future. Some of these may be a great fit with our RaPower3 marketing concepts. Stay tuned.

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Contract Questions

1. People electronically sign their contracts and agreements. Is this legally OK?

Yes. It is now done all the time in the United States.

2. Why so many contracts and agreements?

All are necessary to put the whole RaPower3 package together.

For example, The Equipment Purchase Agreement has important connections with the Operations and Maintenance Agreement. The Bonus Contract is important for our RaPower3 members in qualifying for the depreciation benefit.

3. How can I get a copy of my Contracts and Agreements?

Easy. Just Log-in to your back office member area. Look to the left hand greenish column. There are two places to get this info that you may also print. First, look for contracts and click. There you will see a list of some of your documents. Just click to see or print. Second, look down further and click View Personal Purchases. This page shows a list of your Personal Purchases. On the left, you will see a small box with a + in it. Click it. This will bring up a lot of info: Your Equipment Purchase Contract, your Operations and Maintenance Agreement. You can even print out your invoice; something your CPA might wish to have.

Network Marketing Questions

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1. I don't like Network Marketing (Multilevel Marketing). What do I have to do?

Nothing. Absolutely nothing. It's just one component of RaPower3. Your participation is completely voluntary.

2. What's the cost?

There is no cost. There is no administration start-up fee like other network marketing companies and also no monthly funds taken out of your account like other companies. You simply get commissions on everyone you sponsor and commissions on everyone they sponsor up to 6 levels deep.

3. What makes RaPower3 different?

Ninety-eight to ninety-nine percent of people who get into network marketing lose money because of the administration fee and having monthly funds withdrawn automatically from their checking account. Most people are unskilled in selling the products that are often times overpriced and, in addition, to being rejected over and over. Discouragement and loss of money leads to quitting with a bad taste.

With RaPower3 you only buy what you need and what you do buy makes you money and continues to make you money.

4. How do commissions work?

You work at your own pace. But the commissions are ten percent on the sales, ten percent on the rental income plus the bonus. It can mount up to a life-changing amount. You can sponsor as many people as you want. We call that going wide. And with each of those people you directly sponsor, you will also get a 1% commission for everyone they sponsor six levels deep. This means you can make commissions when your clients sell systems.

Example: Many people have purchased 100 systems or more. One hundred systems require a down payment of $105,000. That means a $10,500 commission. This also means the client will earn $15,000 a year in rental income. That means another $1,500 a year in commissions from the rental. The bonus would be at a maximum of $100,000.

5. Who would buy 100 systems?

One in ten households should purchase 100 systems. When you speak in terms of being able to go back one to two years, you really don't have to make that big of an income to justify a one hundred system purchase. You can purchase several lenses a month and by the end of the year, you can get it done. Your IRS refunds will be about &160,000. Do the math. What's even better this program is the federal government's program. RaPower3 just uses what was passed by congress and signed into law by two presidents to help make our country go green.

Negative Media (Update)

RETURN TO CATEGORIES

There is the appearance of a lot of negative information against RaPower3 and/or IAUS on the Internet. The truth is, nearly all negative media on the internet about RaPower3 and IAUS stems from an anonymous man whose main alias is TEDennis. This man's agenda is to do harm to RaPower3 and RaPower3 members. Please stay away from this dangerous man. If you know any information on this man, or if he has hurt you in any way, please send the information to info@rapower3.com so that it may be added to forthcoming action.

1. Who is TEDennis?

He is a man who hides behind the annonymity of the internet with the singular purpose to spread misleading and hurtful misinformation about RaPower3 and IAUS in order to disrupt progress by any means possible. His main website is called iausenergy.com. But he has many, many more sites with cleaver titles such as "Scamwatch" and "Fraud Alert", but they are nothing more than free blog sites filled with misleading information about IAUS and RaPower3.

His main site, iausenergy.com is regisered under godaddy. The following came from the registrar:

To see the report on iausenergy.com CLICK HERE:

On this report you will see the phone and fax numbers are:
+1.4806242599 and +1.4806242598

And the address is listed as:
14747 N Northsight Blvd Suite 111, PMB 309
Scottsdale, Arizona 85260

The man is dangerous. Do an internet search on these phone numbers and address to see what this man is involved in. It is really scary stuff.

2. I read and article called "Pie in the Sky...", are the claims in the article true?

The answer is, absolutely not.

A detailed response from RaPower3 concerning this article and its wild claims may be read HERE.

Make Payments To:
RaPower3 LLC
4035 South 4000 West
Deseret, UT 84624

PR Contact:
Matthew Shepard
matt@rapower3.com
801-651-2183

Business Contact:
Greg Shepard
greg@rapower3.com
801-699-2284

Technology:
Technology Overview
Technology Videos
Disruptive Solutions
The Basics
Patents

Opportunity:
Opportunity Overview
Payback
Calculate Leases
Buy Leases and Join

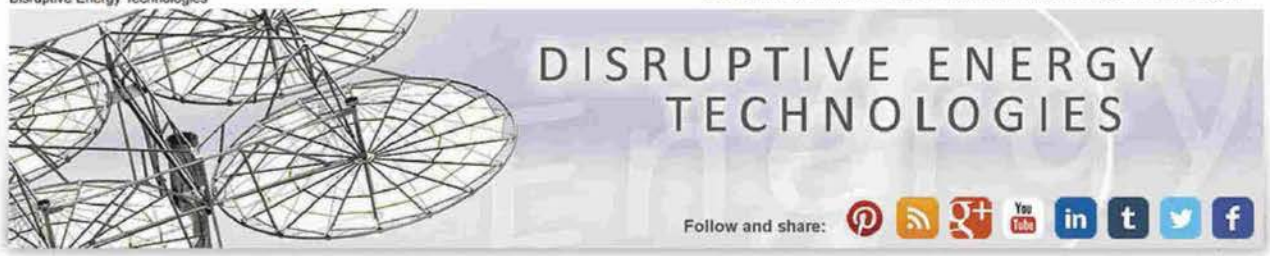
Tax Info:
General Tax Information
Tax Forms
CPA Information
How Depreciation Works

AGREEMENTS

Lens Purchase Agreement | Operations & Maintenance | Commission Agreement | Policies & Procedures | Distributor Application

DOCUMENTS

IAUS Tech White Papers | Tax Opinion Letter | Tax Memorandum | RaPower3 History | Millard County Permit



Buy Solar Lenses

SITE PAGES
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Opportunity Overvie
Tax Info
FAQ
Tours
News
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Contact

Satisfying the IRS Depreciation Conditions

General Info

This is somewhat confusing and complicated. Share this info with your tax preparer and have the following ready in case of an audit. There are three entities that need to be recognized along with your Placed In Service letter and our two tax attorney opinion letters. You electronically and legally sign agreements and contracts with all three entities at the same time you sign up to become a distributor for RaPower3.

Entity One

This is your agreement with RaPower3: The Equipment Purchase Agreement. This proves you purchased so many solar lenses and that you are under contract to fulfill the terms of the agreement.

Entity Two

This is your Operation & Maintenance Agreement with LTB,LLC, a company headquartered in Las Vegas, Nevada. In this agreement it outlines the responsibilities of LTB,LLC like maintaining your lenses, providing insurance and replacing your lenses if broken, among other duties and requirements. This agreement is part of implementing your business plan. LTB,LLC agrees to rent your lenses at $150 per lens and after the first five years, part of that $150 ($82) goes to pay off your contract with RaPower3. LTB,LLC makes money from the revenue generated from the solar lenses. Everyone wins. You are actively engaged in your solar business because of this agreement and since you do most or all of the work in the business, you are also a material participant.

Entity Three

This is your Bonus Contract between you and International Automated Systems (The patent holders and owners/controllers of many technologies). Your lenses are Placed In Service the second you sign up to become a distributor via an electronic signature. You allow International Automated Systems (IAS) to use your solar lenses for advertising. In return, IAS agrees to give you a certain small percentage based on the 1st or 2nd billion dollars in gross sales. Here's the following from one of the bonus contracts: Purchaser agreeing to make the Systems available to IAS as a reference for marketing and sales purposes to show and demonstrate to potential customers ("New Customers"), Purchaser has earned and shall thereafter receive a referral fee (the "Referral Fee," as more fully explained below) for services performed by allowing access and use for sales purposes, for each System purchased, the Referral Fee shall be zero point zero and zero and zero two percent (0.0002%) on referral amounts up to One Billion Dollars ($1,000,000,000) of gross revenue received by International Automated Systems (IAS). The RaPower3 Sponsor also receives half of what the Purchaser receives. (0.0001%)

Your Placed In Service Letter

Don't be confused. You need to place your lenses in service two ways: one for tax credits and one for depreciation. The following sample letter is for your tax credits:

> This letter is regarding the "Alternative Energy Systems" that you purchased from RaPower3 LLC. RaPower3 put into service your equipment for seven solar lenses on or before December 31, 2010. This will qualify you for the Internal Revenue Service solar energy tax credit (However for your personal information, Section 103 Div.B Energy Credit (code Sec.48), "For projects whose construction time is expected to equal or exceed two years, the Credit may be claimed as is placed in service.")

The Tax Attorney Letters offer the tax codes to certify the validity of using the Bonus Contracts and advertising of the solar lenses to qualify for the depreciation and proof of being Placed In Service at the date of purchase:

The Anderson Tax Attorney Opinion Letter

To be depreciable, the property must meet all of the following requirements: it must be property you own; it must be used in your business or income-producing activity; it must have a determinable useful life; and it must be expected to last more than one year after being placed in service.

A taxpayer can start claiming depreciation of an asset as soon as his or her property is placed in service. Property is placed in service when it is ready and available for a specific use, whether in a business activity, an income-producing activity, a tax-exempt activity, or a personal activity. This does not mean you have to be using the property, just that it is ready and available for its specific use.

Plaintiff Exhibit 25

US-001738
US001738
PLEX00025

If the equipment is ready and available for ANY income producing activity, including leasing it out for advertising purposes, the owner may start claiming depreciation of the asset.

The Kirton McConkie Letter

Property is placed in service when it is "placed in a condition or state of readiness and availability for a specifically assigned function." Treas. Reg. Section 1.46-3(d)(l)(ii). However, the Tax Court has held that for property purchased for lease to others to be placed in service, "it is not necessary that the property actually be used during the taxable year in the taxpayer's profit-motivated venture. It is sufficient that the property be available for use." Waddell v. Commissioner, 86 T.C. 848 (1986), citing Sears Oil Co. v. Commissioner, 359 F.3d 191, 198 (2d Cir. 1966) and Grow v. Commissioner, 80 T.C. 314, 326-327 (1983).

The Importance of these Documents

All of the above documents, agreements and letters work in concert with each other. All are important cogs in the wheel of your tax benefits. You qualify for the tax credits as your solar lenses are in a state of readiness to always produce heat from the sun. You qualify for the depreciation as your solar lenses are immediately being used to make you money.

You relied on the above tax attorneys, who offered their research and opinions, to become involved with RaPower3 in the first place. This reliance is vastly important. It is not only for the RaPower3 Team Members, but for everyone else concerned. IAS, RaPower3, LTB LLC, CPAs, Tax Preparers also all relied on these tax opinions.

The entire letters can be found on rapower3.com under documents or below in the website footer.

Make Payments To:
RaPower3 LLC
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Deseret, UT 84624

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801-651-2183

Business Contact:
Greg Shepard
greg@rapower3.com
801-699-2284

Technology:
Technology Overview
Technology Videos
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Payback
Calculate Lenses
Buy Lenses and Join

Tax Info:
General Tax Information
Tax Forms
CPA Information
How Depreciation Works

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DOCUMENTS

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Gmail

Sam Otto <eldorado.dr@gmail.com>

Ra3 Active/Passive Status

1 message

Greg Shepard <greg@bfsmail.com> Wed, Feb 2, 2011 at 1:14 PM
To: undisclosed-recipients

TO ALL: A GREAT BIG WELCOME TO OUR NEWEST RAPOWER3 TEAM MEMBERS: Alberto, Jayson, Stefan, Sherly, James W., Serge, Charmaine, Patricia, Seth, Larry D., Charlton and Andrea.

To qualify for the huge Depreciation federal tax benefit, your CPA will want to know if this was an investment. NO, IT IS NOT. YOU PURCHASED ALTERNATIVE ENERGY SYSTEMS AND THIS IS A BUSINESS. Next, the CPA will want to know if this is an Active or Passive enterprise. IT IS ACTIVE. IT MUST BE FOR YOU TO GET YOUR DEPRECIATION ON TOP OF YOUR TAX CREDIT.

Attached is a statement on this (Two versions). Make a copy. This statement is also on the RaPower3.com website under TAX BENEFITS/FINER POINTS: Active/Passive Rules.

A lot of great things happening. Should be a very prosperous new year.

Regards, Greg

Greg Shepard
RaPower3-Chief Director of Operations
843 W 2400 S
Salt Lake City, UT 84119
Fax 801-975-1159
www.rapower3.com

2 attachments

Ra3 Active'Passive Rulesa.doc
37K

Ra3 Active'Passive Rules.docx
15K

Plaintiff Exhibit 30

EXHIBIT 836

US-001116
US001116
PLEX00030

Steven Carver

From: Greg Shepard [greg@rapower3.com]
Sent: Monday, November 11, 2013 8:07 AM
Subject: Ra3 Audit/Appeal Great Info

TO ALL: This was just sent to me. IMO, this is a great approach and strategy. Regards, Greg

3 significant issues Rick Jameson emphasizes -

#1. This is leasing "personal property" which is not considered passive at all - no need to worry about establishing involvement and time spent (for this qualification). We buy and own the lenses (personally) and do business with them by leasing them. [Unless, someone has their business buy the lenses (where other people are involved).]

#2. We should not consider ourselves in an "energy" business. We are buying lenses and leasing them - THAT is our business - LEASING - NOT producing energy, though we lease the lenses because they produce heat (which qualifies for the credit). And our lenses are "Placed in service" as they are part of a solar energy system, extra backup equipment, in line to be added, etc., ie: in a state of readiness, and are also used currently for advertizing purposes. They qualify because they can and will be used to produce heat. They do not need to produce
electricity (ever).

#3. Everyone should establish a separate business bank acct. (where the participant is DBA some business name) through which to work all RaPower (business) transactions- separate from all personal stuff (where they can do this under their own SS #).

Greg Shepard
4035 South 4000 West
Deseret, UT 84624
www.rapower3.com
greg@rapower3.com
801-699-2284

Plaintiff Exhibit 32

US-001528
US001528
PLEX00032

From: Greg Shepard <greg@bfsmail.com>
Sent: Friday, February 10, 2012 10:12 AM
To: undisclosed-recipients
Subject: RaPower3 Update

TO ALL: A BIG WELCOME TO ALL OUR NEW RAPOWER3 TEAM MEMBERS. ALSO, I FOUND SOME VETERAN TEAM MEMBERS WHOSE E-MAILS WERE ADDED.

DELTA UPDATE: Two big steel deliveries were made last week and two more were made this week. These recent deliveries are enough for another 300 towers.

THE 2012 RAPOWER3 NATIONAL CONVENTION: It will be June 25-26-27. This was not only the date as MOST voted on, but we may make a public announcement on Tuesday the 26th of June. Tuesday is the ideal day for an announcement concerning a public stock (IAUS). The rapower3.com website will have continuing info on the convention. Go to Current Events then click CONVENTION from the drop down list.

E.H. asked, "Is there anything I can do with my 2009 taxes?"
MAYBE. YOU ARE ALLOWED TO GO BACK TWO YEARS WITH A NET OPERATING LOSS WHICH IS A RESULT OF FORM 4562 DEALING WITH THE 100% DEPRECIATION OF YOUR SYSTEMS. YOU GET A DEPRECIATION OF $2,975 WITH EACH SYSTEM. HOWEVER, AMENDING YOUR TAXES BACK TO 2009 IS SOMETHING A CPA OR A LICENSED TAX PREPARER SHOULD DO. I WOULD NOT ATTEMPT THIS BY YOURSELF.

FYI: BRYAN BOLANDER, THE CPA THAT SO MANY OF YOU HAVE ASKED TO DO YOUR TAXES HAD A DEATH IN THE FAMILY LAST WEEK. BUT HE IS BACK AT WORK NOW AND ASSURES ME THAT EVERYONE WILL BE TAKEN CARE OF.

We do have new RaPower3 Team Member who is licensed to do your taxes in all fifty states. So this is another option. John Howell's info is below:

TAX PREPARER HELP.

Here is my info if any members need help with their tax return and your CPA is over booked. We have over 50 years in the tax business. My father, sister and myself are EA's (enrolled agents with the US Treasury Dept.) We are licensed to do tax returns in any state.

John Howell
Howell Financial and Tax Service

Howell Tax Service
4708 K Mart Dr. Ste B
Wichita Falls, TX 76308
940 766-0981 Fax 940 766-3557
www.howelltax.com
e-mail
rockingh@wf.net
jhowell@howelltax.com

HOPE THIS HELPS. REGARDS, GREG

Greg Shepard
RaPower3-Chief Director of Operations
843 W 2400 S
Salt Lake City, UT 84119
Fax 801-975-1159
www.rapower3.com

From: Greg Shepard <greg@bfsmail.com>
Sent: Monday, February 20, 2012 10:43 PM
To: undisclosed-recipients
Subject: Ra3 Turbo Tax problems

TO ALL: I've tried for several hours to do taxes on Turbo Tax without success. I tried the Turbo Tax Deluxe program and it didn't work for me. SORRY.

HERE IS AN E-MAIL I JUST GOT FROM JOHN HOWELL WHO CAN DO YOUR TAXES. JOHN IS A RAPOWER3 TEAM MEMBER AS WELL.

Greg,

For your info there is glich in the Turbo Tax software that will not calculate the proper credit so anyone who has used it and has an energy credit over 4000 won't have the proper carryover amount shown. Intuit has fixed the problem with the professional program, Pro Series, not sure if the other versions have been fixed yet. I've pulled in more help to handle any of those that Bryan can't get to.

John Howell, EA
rockingh@wf.net
Howell Tax Service

Greg Shepard
RaPower3-Chief Director of Operations
843 W 2400 S
Salt Lake City, UT 84119
Fax 801-975-1159
www.rapower3.com

From: Greg Shepard <greg@bfsmail.com>
Sent: Thursday, February 23, 2012 5:05 PM
To: undisclosed-recipients
Subject: Ra3 Success

First, all the tax forms needed for your tax benefits are on our website rapower3.com under TAX BENEFITS. This will allow you to do your own taxes at no cost if you so desire. Also, I went to COSTCO and found the Turbo Tax software for sale. $50 for the Deluxe package, $70 for the Premium package and $80 for the Home and Office package. All three versions will work for the RaPower3 Tax Benefits. Again, you cannot go to irs.gov and have a free tax service help you. They don't have the software for that. Then, of course, you can use a CPA or licensed tax preparer. It cost more, but it will be done correctly and they have a habit of finding things to save you money that you didn't think of, plus they would be with you in the unlikely event of an audit. Our RaPower accountants are Bryan Bolander: bryan@vcb-cpa.com and John Howell: rockingh@wf.net

SUCCESS: Andrea purchased two systems for her 2010 taxes and one for her 2011 taxes. She only makes $24,000 a year and because she's single, they take a lot out: $2,688. Well last year she got everything back plus even more from the state. Plus, she was able to carryforward $845 of her tax credit. She just sent in her taxes and will get all $2,688 back plus $565 from the state. So, between the two years, Andrea will receive back $1,400 more in net money to spend because of RaPower3.
She is one happy camper.

AND SO IT IS WITH RAPOWER3: WHETHER YOU MAKE TONS OF MONEY ARE JUST A LITTLE; EVERYONE MAKES MONEY WITH RAPOWER3 AS LONG AS THEY ARE A TAXPAYER.

Regards, Greg

Greg Shepard
RaPower3-Chief Director of Operations
843 W 2400 S
Salt Lake City, UT 84119
Fax 801-975-1159
www.rapower3.com

From: Greg Shepard <greg@bfsmail.com>
Sent: Friday, May 4, 2012 1:51 PM
To: undisclosed-recipients
Subject: Ra3 Update & Winner
Attach: RAPOWER3 CLIENT SYNOPSIS.doc

TO ALL:

This week we installed all of the electrical needs for the manufacturing plant including all three-phase power needs. A company was hired to install all of our manufacturing plant machinery in an assembly line order. So, I think, we are still on schedule to begin construction by June 1st.

John Howell won our contest. Congratulations John! I will award him his $2,000 bonus contract at our National Convention. BTW, John has a big downline and is a tax preparer who files returns for RaPower3 Team Members. John is from the great state (country) of Texas.

Attached is a one page synopsis that I gave my client. Feel free to make a copy and use as a model. A conference call is planned for next Tuesday between my client and his CPA from another great state-Oregon. Dealing with CPAs is often a necessary step with people purchasing many systems.

HAVE A GREAT WEEKEND!!

Greg

Greg Shepard
RaPower3-Chief Director of Operations
843 W 2400 S
Salt Lake City, UT 84119
Fax 801-975-1159
www.rapower3.com

RAPOWER3 CLIENT SYNOPSIS

RAPOWER3 BENEFIT PROGRAM

Prepared By Greg Shepard

Basic Tax Benefit Rules: Allowed to take Depreciation (NOL) back two years and forward 20 years. Allowed to take tax credits back one year and forward 20 years. Federal program is in effect until the end of 2016.

Analyzation Results: 2010 taxes paid = $44K, 2011 taxes paid = $55K

Optimum Plan: Using our formula, My client should purchase 300 systems

Expected Results: To get back about $20K from amending your 2010 return, $55K from amending your 2011 return, pay zero taxes from 2012 through 2016. Expected net return through 2016 about $223K.

Depreciation on 300 systems: $892,500. Use tax forms 4562 and Schedule C. Transfer to line 12 of your 1040. In 2012 you get to depreciate $535,500 with the rest coming every year through 2016.

Tax Credits on 300 systems: $315,000. Use tax forms 3468 and 3800. Then transfer to line 53 of your 1040 form. You use the depreciation/NOL first and then use the tax credits as needed.

The Cost Breakdown:

1. **Up-Front Cost**: $105 per system/300 systems = $31,500
2. **Down Payment**: $1,050 per system/300 systems = $315,000 less the up-front payments. Payments towards the down payment comes from your tax refunds
3. **Total Cost**: $3,500 per system/300 systems = $1,050,000. The balance due after the down payment comes from the rental income from your systems.

The Tax Benefit Return: The down payment and the tax credits are a wash so the net gains come from your $892,500 depreciation. In Utah, you get a 5% benefit so with that; you will make about 25% of the depreciation or $223,000 in net proceeds.

The Rental Income: You get $150 per year per system in the first five years: 300 X $150 = $45,000 a year X 5 years = $225,000. After five years, you get $68 per system per year with $82 per system going to finish paying off your systems. This is for thirty years so $68 X 30 X 300 = $612,000

The Bonus Contract: You contract with us to allow future clients to see your systems in action. For that we give you a small percentage of any gross sales as a bonus. This percentage has a maximum payout of $2,000 per system X 300 = $600,000

YOUR TOTAL NET INCOME FROM 300 SYSTEMS: $1,660,000

From: Peter Gregg <pgregg@bfsmail.com>
Sent: Friday, November 8, 2013 11:19 AM
To: rjameson08@gmail.com
Subject: RE: FOLLOW UP
Attach: IRS4549.pdf; OreDeptTres.pdf; IRSappeal.pdf

Rick,
Thank you for the follow up, and relational info. I will get a business checking account set up, actually I do have a seperate account already at a credit union that I could use (I am thinking out loud). I add some money every month from my job, but could halt that and just use that account. I have had the account for over 8 years, unless you think I should just open a new one today.

Here is the IRS 4549, the Oregon "Findings", and the IRS appeal I created.

Please let me know how else to proceed.

Thank you,

Peter Gregg
BFS Clinician/Sales Rep
www.biggerfasterstronger.com
Estacada High School Coach
503-679-4688

----- Original Message -----
From: Richard Jameson [mailto:rjameson08@gmail.com]
To: pgregg@bfsmail.com
Sent: Thu, 7 Nov 2013 20:32:00 -0700
Subject: FOLLOW UP

Hi Peter,

Just wanted to let you know that I did get the PDF copies of your 2010 and 2011 tax returns. I will review them in the morning and start putting the forms for you to sign together then also.
As for how I know Greg. When I was working on the appeal for the client I talked about a few years ago he gave me Greg's email and phone number. I did talk to Greg several times then. When I filed the amended returns for the client I talked to him a few more times.
When I knew I was going to leave my employment in mid to late Oct. of this year I called and set up a meeting (including my partner Lori also) with him and Neldon to offer our services to their clients. We reviewed things for about 4 and a half hours. I then gave Greg the bio to release after my release date so there would be not problems with my employment contract.
Thanks Rick

Purchase Order from International Automated Systems, Inc.

AP

Fax To: Plaskolite
Greg Lemay
(662) 893 5352

Fax From: International Automated Systems, Inc.
Lisa Phillips
(801) 423-1431

Ship to: International Automated Systems, Inc.
279 East Main Street
Delta, Utah 84624

Bill to: International Automated Systems, Inc.
326 North Highway 6
Salem, Utah 84604

Product Description:	Solar Lens
Number of Pieces:	2,100
Dimensions:	60.0" x 49.12"
Thickness:	0.085"
Unit Price:	$52.18
Total Price Pre-Terms:	$109,578
Credit Terms:	2% Cash up front discount
Total Price Post Terms:	$107,386.44
Freight Terms:	Freight Pre-paid
Need by Date:	February 2, 2009
Contact Information:	Randy Johnson (801) 592-8148

PLASKOLITE INC
P.O. BOX 636087
CINCINNATI, OH
45263-6087

International Automated Systems, Inc.

Neldon Johnson
President, CEO

1-9-2009
Date

EXHIBIT
518
PENGAD 800-631-6989

Confidential Attorney Eyes Only Ra3 003059

318482-07

19081

INTERNATIONAL AUTOMATED SYSTEMS INC.

DATE	DESCRIPTION	AMOUNT	DEDUCTION	NET AMOUNT
	R & D Misc Exp & Supplies			107,386.44
CHECK DATE 1/13/09	CONTROL NUMBER 19081	TOTALS Plaskolite inc.		$107,386.44

SBF 201A 9/05

REORDER FROM LANCER LTD. 1-509-822-0260 TOLL FREE 1-800-621-2232

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND • PADLOCK ICON DISAPPEARS WITH HEAT • FLUORESCENT FIBERS AND OTHER SECURITY FEATURES

BANK OF AMERICAN FORK
AMERICAN FORK, UT 84003

19081

INTERNATIONAL AUTOMATED SYSTEMS INC. 5-88
512 SO. 860 E.
AMERICAN FORK, UT 84003

97-102
1243

Memo: Solar Lens

DATE Jan 13, 2009

AMOUNT ******$107,386.44

CONTROL NUMBER

One Hundred Seven Thousand Three Hundred Eighty-Six and 44/100 Dollars

PAY
TO THE
ORDER OF

Plaskolite inc.
P.O.Box
Cincinnati, OH 45263-6087

[redacted]

⑈019081⑈

EXHIBIT 519

PENGAD 800-631-6989

OK 1

From: Greg Shepard <greg@rapower3.com>
Sent: Thursday, January 24, 2013 3:27 PM
To: undisclosed-recipients
Subject: Ra3 Tax Questions Answered

D.S. had several tax questions that some of you may also be interested in: MY RESPONSES IN CAPS.

Hi Greg,

I purchased 5 lenses in Oct. and I would like to go back one year and amend my 2011 taxes. YOU WOULD ONLY WANT TO DO THAT IF YOUR TAXES FOR 2012 ARE GOING TO BE LESS THAN $7,000

First off, can I do that? YES, YOU CAN GO BACK ONE YEAR ON THE TAX CREDITS AND TWO YEARS ON YOUR DEPRECIATION/NOL.

And if so, what depreciation % should I use for 2011? WHEN YOU START AMENDING RETURNS, I HIGHLY RECOMMEND A QUALIFIED TAX PREPARER. THE SEVERAL HUNDRED DOLLARS IT WILL COST IS WELL WORTH IT. HOWEVER, TO ANSWER YOUR QUESTION, YOU MUST DO YOUR 2012 TAXES FIRST AND THEN CARRYBACK WHAT YOU DON'T USE TO 2011.

And what depreciation % will I use for this year's (2012) taxes? YOU MAY TAKE THE 50% BONUS DEPRECIATION PLUS 20% OF THE REMAINING BALANCE. THEREFORE, IN EFFECT, YOU GET A 60% DEPRECIATION. THEREFORE, YOU MAY CARRYBACK 40%.

I keep hearing about 30% depreciation but I'm sure that I can't use 30% for both years or can I? THERE IS NO 30% DEPRECIATION. HOWEVER, THERE IS A 30% TAX CREDIT.

I'm just curious because I'd like to get the biggest bang for my buck. WE ALL DO. THAT'S WHY YOU SHOULD GET A QUALIFIED TAX PREPARER.

I paid about $3500 more in federal taxes in 2011 than I did in 2012. SINCE I DON'T KNOW WHAT YOUR FEDERAL TAX OBLIGATION WILL BE IN 2012, I CAN'T CALCULATE ANY FIGURES FOR YOU.

I've asked my sponsor and he didn't know the answer either. Thanks in advance for your help. YOU'RE WELCOME, BUT KEEP IN MIND THAT I AM NOT A TAX ADVISOR OR AN EXPERT. HOWEVER, WE DO HAVE A GREAT CPA IN BRYAN BOLANDER. CONTACT HIM AT bryan@vcb-cpa.com or JOHN HOWELL AT rockingh@wf.net. BRYAN IS FROM SALT LAKE CITY, UTAH AND JOHN IS FROM WICHITA FALLS, TEXAS. BOTH HAVE RAPOWER3 CLIENTS FROM ALL ACROSS THE COUNTRY.

Signed, Confused!! HOPE THIS HELPS. NOW, YOU CAN ALWAYS GO TO rapower3.com. WE HAVE A FREQUENTLY ASKED QUESTIONS (FAQ) SECTION AND THERE IS A TON OF INFO ON TAX QUESTIONS AVAILABLE. GOOD LUCK. GREG

Greg Shepard
RaPower3
4035 South 4000 West
Deseret, UT 84624
www.rapower3.com

From: Ken Riter
To: Moran, Christopher R. (TAX)
Sent: 7/5/2016 2:22:12 PM
Subject: rapower_riter-FW: IRS Tactics Against Tax Preparers

From: Greg Shepard [mailto:greg@rapower3.com]
Sent: November 15, 2014 12:18 PM
To: John Howell
Cc: Rick Jameson; Ken Riter; Kenneth Alexander
Subject: IRS Tactics Against Tax Preparers

Hello All:

The IRS is harassing some of you tax preparers. This comes in the form of threats and then demands. The threat states RaPower3 is a Tax Avoidance Scheme and you may face criminal charges if you don't give them confidential information.They may want your entire client list and then highlight your RaPower3 clients. What an invasion. The IRS is running amok. Just politely e-mail them back and say "What is the purpose of this? It appears you are overreaching." They probably won't respond back. Just ignore them. There is no consequence for not complying with these illegal demands. This advice comes from our attorney Paul Jones.

I will continue to keep you informed. Hang in there and good luck.

Regards, Greg

Greg Shepard
RaPower3
Chief Director of Operations
4035 South 4000 West
Deseret, UT 84624
801-699-2284
www.rapower3.com

Riter_Kenneth-01066

PLEX00606

IAS Solar Dish Technology Evaluation

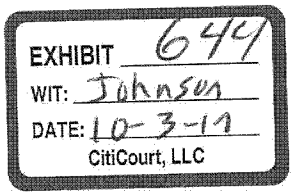
Submitted to the
United States Department of Justice

United States v. RaPower-3, et al.
Civil No. 2:15-cv-00828 DN

by

Thomas R. Mancini, PhD
TRMancini Solar Consulting, LLC

July 28, 2017



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TRMancini Solar Consulting

1. REPRESENTATIONS AND CERTIFICATIONS

1. I am retained by United States Department of Justice (U.S. DOJ):

   a) to explain the basic concepts involved in workable solar energy power generation technology;

   b) to evaluate and explain the "IAS Solar Dish Technology" at issue in this case, which includes any equipment installed on sites identified by the Defendants, any technological plans or schematics provided by the Defendants;

   c) to determine whether the IAS Solar Dish Technology is currently converting sunlight into energy; and

   d) to opine on whether the IAS Solar Dish Technology is commercially viable on any scale (or may become commercially viable on any scale) to convert sunlight into electrical power.

2. I confirm that I have identified the facts and matters referred to in this report that are within my own knowledge and those that are not. Those that are within my own knowledge I confirm to be true. The opinions in this report represent my complete professional opinions on the matters discussed.

3. I have no present or past relationships with any Defendant in this case. My relationship with U.S. DOJ is a contractual one to perform this evaluation as stated above.

4. I am the Principal of TRMancini Solar Consulting, LLC, and have more than 35 years of experience with Concentrating Solar Power (CSP) systems. As a Professor of Mechanical Engineering at New Mexico State University, USA (1975-1985), I performed research in solar power generation, passive solar cooling, active heating and cooling, and taught undergraduate and graduate courses in energy-related areas, heat transfer and fluid mechanics.

5. Prior to my current position, I was at Sandia National Laboratories[1] in Albuquerque, NM, (1986-2011) where I was a Distinguished Member of the Technical Staff working on CSP prior to becoming the Program Manager for Concentrating Solar Power at Sandia from 2002 to 2011.

6. I have been active in the American Society of Mechanical Engineers (ASME) as Chair of the Solar Energy Division, Chair and Member of the Energy Resources Board, and Chair of the ASME Energy Committee. In 1994 I was elected to the rank of Fellow of the ASME.

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[1] Sandia Corporation operates Sandia National Laboratories under contract to the U.S. Department of Energy (DOE) and supports numerous federal, state, and local government agencies, private companies, and organizations. It is one of the DOE's Federally Funded Research and Development Centers (FFRDC).

7. From 1994 through 2011, I served on the International Energy Agency's (IEA) Solar Power and Chemical Energy Systems (SolarPACES) Implementing Agreement, which is the international organization tasked with the sharing of CSP R&D information between and among member governments. I chaired SolarPACES from 2004 through 2011.

8. Appendix I is my complete C.V. It also contains a list of all of my publications from the last 10 years and all of my solar energy-related publications regardless of date of publication.

9. During the last 4 years, I served as an Expert Witness for the following three cases:

   a. Evaluation of the Expected Lifetime of the Andasol Solar Parabolic Trough Plants, EISER Infrastructure Limited and Energia Solar Luxembourg S.à.r.l. vs. The Kingdom of Spain, International Center for Settlement of Investment Disputes, ICSID Case No. ARB/13/36, February 2016.

   b. Evaluation of the Expected Lifetime of the Andasol Solar Parabolic Trough Plants, ANTIN Infrastructure Services Luxembourg S.à r.l. ANTIN Energia Termosolar B.V. vs. The Kingdom of Spain, International Center for Settlement of Investment Disputes, ICSID Case No. ARB/13/31, October 2016.

   c. Evaluation of the Expected Lifetime of the REEF Solar Parabolic Trough Plants, RREEF Infrastructure (G.P.) Limited REEF Pan-European Infrastructure Two Lux S.à r.l. vs. The Kingdom of Spain, International Center for Settlement of Investment Disputes, ICSID Case No. ARB/13/30, March 2017.

10. I have been and am currently being compensated by the U.S. Department of Justice at my consulting rate of $300/hour for work related to the evaluation of the IAS Solar Dish Technology, the preparation of this report, and any testimony I may provide.

11. The materials, including documents and in-person visits to sites identified by the Defendants, that I have examined and relied upon in preparing this report are listed in Appendix II. Some of these materials are cited in this report.

12. Appendix III is a glossary of terms that I use in this report.

13. My opinions are based on the detailed analysis presented in this report. I affirm that my opinions are solely and completely my own, that they are independent, and free of influence from anyone, including but not limited to all Defendants in this case and the U.S. DOJ.

Conclusion 1: Status of the IAS Solar Dish Technology

The IAS Solar Dish Technology is in the research Stage 1 of development. The "Technology" comprises separate component parts that do not work together in an operational solar energy system. The IAS Solar Dish Technology does not produce electricity or other useable energy from the sun.

Conclusion 2: Commercialization Potential of the IAS Solar Dish Technology

The IAS Solar Dish Technology is not now nor will it ever be a commercial-grade dish solar system converting sunlight into electrical power or other useful energy.

Thomas R. Mancini — July 28, 2017

Thomas R. Mancini — *DATE*

2. INTRODUCTION TO CSP TECHNOLOGY

14. Concentrating Solar Power ("CSP") Systems are different from the better-known photovoltaic solar systems. In a photovoltaic system, devices generate electricity directly from sunlight through a process that occurs naturally in semiconductor materials. Electrons in semiconductors are released by solar rays and travel through an electrical circuit, providing electricity to the grid. CSP systems operate by collecting the heat from sunlight and using it to replace the burning of a fossil fuel in a more conventional power cycle most often the Rankine cycle.

2.1. The Architectures of CSP Systems

15. There are two fundamental architectures of CSP Systems. One type of system focuses sunlight along a line -- the parabolic trough and Compact Linear Fresnel Reflector. The other types of systems, power towers and dish/engine systems, focus sunlight at a point or on a small area. Each CSP power generation system has its own unique set of characteristics, such as concentration ratio (ability to concentrate sun light), system operating temperature, power cycle compatibility, and cost. The four generic CSP concentrator systems are shown schematically in Figure 1 below.

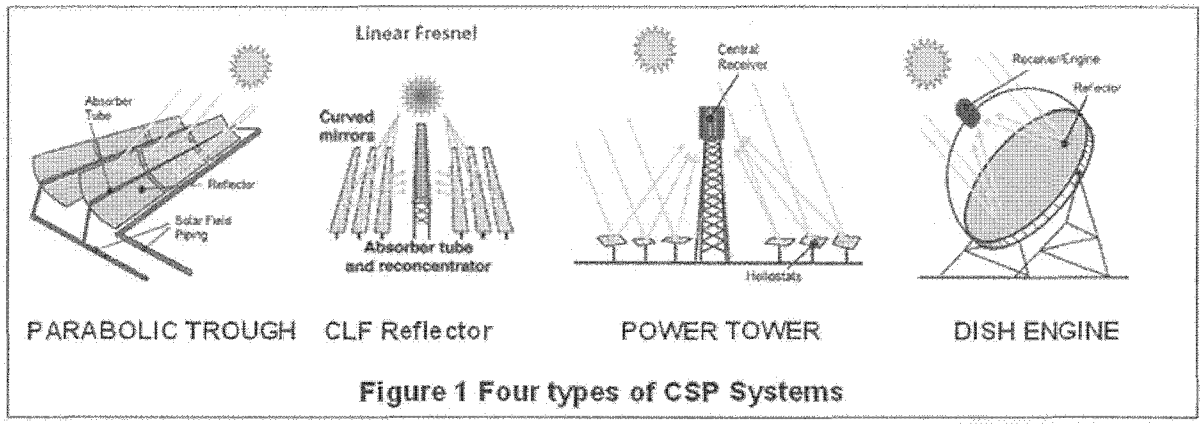

Figure 1 Four types of CSP Systems

16. The general convention is to define a solar collector as comprising a solar concentrator and a thermal receiver.

17. Parabolic trough systems use linear, parabolic-shaped concentrators to focus the sunlight onto glass-encapsulated receiver tubes located along the focal line of the collector. The troughs are oriented so that they track the sun in one direction, usually east to west, to collect solar energy over the course of a day. In a trough-electric system, the collector working fluid (also called a "heat transfer fluid"), typically a synthetic oil, is heated to temperatures up to 400°C in the receiver before passing through a heat exchanger converting a second working fluid, water, to pressurized steam. In a conventional Rankine-cycle, the steam powers a turbine generator produce electricity.

18. Parabolic troughs are the most mature of the CSP technologies and, consequently, are considered lowest risk for commercial power plant designs. This is their greatest asset and the reason that they represent the highest numbers of commercial deployments. Negatives associated with parabolic trough plants include their low temperature of operation resulting in relatively low solar-to-electric conversion and the need to transport large amounts of heat transfer fluid in piping around the collector field with the resulting thermal losses. Parabolic trough plants can also be operated with or without thermal storage.

19. Compact Linear Fresnel Collectors (CLF Reflector) are an approximation of a parabolic trough in which individual long, linear optical facets (flat or slightly contoured) track the sun to reflect their solar images onto a large, linear receiver at a fixed location elevated above the field. One advantage of a CLFR System is that it requires larger pipes but fewer numbers of them in the field and can more readily accommodate a higher temperature collector working fluid such as molten salt resulting in potentially higher efficiency. The major negative of CLFR is that optically it is not as efficient as a parabolic trough.

20. In a power tower or central receiver system, a field of tracking mirrors called heliostats reflects the solar energy onto a receiver that is mounted on top of a centrally-located tower. To maintain the concentrated sunlight on the receiver at all times, each heliostat must track the sun in two axes over the course of the day. Water or molten salt is the collector working fluid and, as in a parabolic trough system, solar energy is used to generate steam to drive a Rankine-cycle turbine/generator. Power Towers do not require that the working fluid, water or molten salt, be piped around the field as they only need to accommodate a relatively small amount of working fluid to be heated in a centrally-located receiver. They are also capable of operating at temperatures similar to those of a coal-fired power plant, ~ 1000 F (560 C) resulting in higher Rankine Cycle efficiency. Most solar engineers consider power towers to be the best long-term option for producing large-scale power from CSP.

21. The fourth type of CSP system is the dish/engine system which uses a parabolic dish concentrator with a thermal receiver and a heat engine/generator located at the focus of the dish to generate power. The dishes are typically parabolic in shape with a glass reflective surface that focuses sunlight to a small focal region. The system operates by tracking the sun and reflecting the solar energy to the focus of the dish where it is absorbed by the receiver which is attached to an externally-fired engine/generator, typically a Stirling engine. The dish/engine system avoids the thermal losses resulting from the transport of a hot fluid through the collector field because each dish/ engine generates electricity. Then, the electricity (rather than heat) is transported from each dish/engine through electrical wires to a central transformer. Because of their highly accurate solar concentrators, high temperature of operation ~800 C (1400 F), and the high efficiency of the Stirling engines, these systems have demonstrated the highest solar-to-electric conversion efficiencies of

more than 30%. The high level of performance make dish/engine systems very attractive technologies for developers. The major drawbacks to dish systems is their relatively high cost of construction and operation in comparison to other CSP technologies and photovoltaics.

22. The general characteristics of the four types of CSP System are shown in Table 1 below.[2]

Table 1 Characteristics of CSP Systems

SYSTEMS	SOLAR CONCENTRATION	OPERATING TEMPERATURE	ANNUAL SYSTEM EFFICIENCY
Trough	~ 80 suns	400 C	~ 12 – 15 %
Linear Fresnel	~ 800 suns	400 – 560 C	~ 10 - 15 %
Power Tower	~ 800 suns	560 C	~ 15 – 24 %
Dish Engine	~ 3000 suns	800 C	~ 28 – 32 %

23. Each of the four CSP Systems uses the concentrated solar heat that they collect to produce electricity. In the case of parabolic trough, linear Fresnel, and power tower systems, power is produced in a Rankine-cycle power block and for a dish/Stirling system it is produced by the Stirling engine/generator.

24. The Rankine Cycle is a thermodynamic power cycle comprising four fundamental components: a high pressure pump, a boiler, a turbine, and a condenser. Most commonly used in a coal-fired power plant, in the Rankine cycle water (the cycle working fluid) is pumped through a boiler where it is converted to super-heated steam. The steam passes through a turbine/generator where it produces electrical power. The cycle is completed when the now low-pressure steam is cooled and condensed back to liquid water in a heat exchanger called a "condenser." After the condenser, the water is sent to the high-pressure pump where the cycle is repeated. The efficiency of the cycle depends on all of components being properly designed to interface and operate with the others.

25. All dish/engine systems developed to date have used Stirling engines. The Stirling cycle is different from the Rankine cycle in how it produces electricity. In a dish/Stirling system, the Stirling engine is heated by the concentrated solar radiation from the dish. Inside the engine, the working fluid, typically hydrogen or helium, is contained and goes through a series of expansions, compressions, and heat transfer processes resulting in mechanical work that turns the generator producing electricity.

26. All CSP Systems are carefully designed and built to provide the highest solar-to-electric conversion possible. The fundamental issue is converting the low power density solar

[2] Mancini, T. R., J. M. Chavez, and G. J. Kolb, "The Promise and Progress of Solar Thermal Power," Mechanical Engineering Magazine, vol. 116, no. 8, August, 1994, SAND94-1353J

resource to heat. This requires large concentrators to collect sufficient solar energy to produce heat for the selected power cycle. Consequently, it is important to minimize the loss of heat as it travels through the system so that these systems can produce the maximum amount of electricity. In the final assessment, the successful technologies will be those that produce the most energy for the lowest cost so that they can compete ultimately with the cost of electricity from conventional fossil fuels.

2.2. Commercialization of CSP Technologies

27. The data in Table 2 show that there are nearly 4,900 MW of CSP systems in operation in the world today.[3] Parabolic trough, CLFR and Power Towers are commercial systems. But dish/Stirling has yet to find market penetration and is generally considered an emerging technology. While 4,900 MW is more than 100 CSP power plants, it is worth noting that this represents less than 0.5% of the world electrical energy capacity.[4]

Table 2 Capacity of Commercially Deployed CSP Plants

CSP TECHNOLOGY	Commercial Operating Capacity in Megawatts (MW)
Parabolic Trough Plants	4,096
Power Tower Plants	621
CFLR Power Plants	172
Dish Stirling Plants	0
Total	4,889

28. As shown in Table 2, parabolic trough systems are the most widely deployed systems. This is due to the history and greater experience base with parabolic troughs than with other CSP systems. However, because of the relatively low operating temperature and resulting system efficiency and difficulty incorporating thermal energy storage, parabolic trough systems, the CSP community believes that the most logical, long-term CSP power generation system is a power tower with thermal energy storage.

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3 SolarPACES data, available at http://www.nrel.gov/csp/solarpaces/index.cfm (last accessed on December 14, 2016);
Solar Energy Industries Association, Concentrating Solar Power, November 7, 2014, available at http://www.seia.org/policy/solar-technology/concentrating-solar-power (last accessed on December 14, 2016);
CSP World, 2015. cspworld.org, available at http://www.cspworld.org/cspworldmap (last accessed on December 15, 2016).
Spanish Solar Thermal Industry, 2015. Protermo Solar. http://www.protermosolar.com/proyectos-termosolares/mapa-de-proyectos-en-espana/and http://www.protermosolar.com/proyectos-termosolares/proyectos-en-el-exterior/

4 2015 Renewable Energy Data Book, Denver, CO USA: NREL, http://www.nrel.gov/docs/fy17osti/66591.pdf

2.3. Dish/Stirling System Demonstrations

29. Although dish/Stirling systems have the highest potential efficiency, there are no dish/Stirling power plants in commercial operation today. This is not for lack of trying by the industry. After 20 years of research and development and 100's of millions of dollars of investment, why couldn't dish/engine technology succeed in the highly-subsidized solar power marketplace? The simple answer is that dish/Stirling systems could not compete with the falling costs of other CSP systems, power towers and parabolic troughs, and with the low cost of flat-plate photovoltaics.

30. Examining the technology-based reasons for dish/Stirling systems being unable to compete, I make the following observations.

    a) Due to their highly-accurate concentrators, high operating temperatures, and the efficiency of the Stirling engine, dish/Stirling systems have the potential to show the highest performance of any CSP or photovoltaic system.

    b) However, they are not able to achieve cost/performance goals because thermal energy storage cannot be readily integrated into dish/engine systems. Thermal energy storage extends the ability of a solar plant to generate electricity beyond times when solar energy is available (i.e., at night).

    c) Costs are high in part because of the cost of Stirling engines. All development plans for dish/Stirling systems require very high production rates for the Stirling engines to make them cost-effective.

    d) The relatively high initial system costs and, more importantly, the operating and maintenance costs of dish/Stirling systems are not likely to be reduced quickly or to sufficiently low levels to enable them to complete commercially with other renewables and fossil fuels.

31. Stirling Energy Systems is the company that has made the biggest investment in dish/Stirling systems' development. Based on my personal knowledge of Stirling Energy Systems' development, I know that they invested $100M to get their dish/Stirling technology to the Engineering Development Stage 4 market entry system demonstration (described below). At that stage, Stirling Engine Systems determined that they could not reduce costs sufficiently enough to compete in the subsidized renewable energy market. There are no commercial dish/Stirling systems operating today, primarily due to the high initial and operating costs. They cannot compete with other renewable technologies, even in subsidized markets.

32. Before proceeding with my evaluation of the IAS Solar Dish Technology, it is helpful to briefly review the stages of development for engineering projects.

3. STAGES OF TECHNOLOGY DEVELOPMENT

33. The Engineering Stages of Technology Development are a general methodology taught to engineers and used throughout the engineering disciplines in industry[5]. I have used these Stages as reference points for projects throughout my career. There are more detailed versions of this process but the following is a brief, simplified process based on a standard Mechanical Engineering curriculum.

Table 3 Stages of Engineering Technology Development

Stages	Description of Activities	Engineering Tools	Expected Outcomes
1. Research	Define boundaries Consider options Preliminary specifications	Scientific principles Mathematical models Simple experiments	Initial system specification Initial component/system models Proof of concept models
2. Demonstrate	Refine component options Consider component interface requirements	Simple computer models Advanced math models Engineering tests Data Analysis	Validation of science Define initial component designs Full test of components Component operational data
3. Prototype	Design components Build components Test components	Full component tests Database of component tests Refined designs/models	Validated component performance Component designs System specification
4. Market Entry	Build/test system prototype	Long-term testing Data collection/analysis Refine system model Evaluate O&M	Validated system performance Long-term O&M data Defined system specifications

34. In the **Research Stage**, the engineering team typically defines the problem and explores the options for achieving the desired output. For example, what is the desired power output of a dish system? What collectors, receivers, power blocks, etc. could achieve this output? The engineering team develops mathematical models of the components and assembles them into a systems model for analysis and further evaluation. Part of this process includes defining the pros and cons of each specific element and how it might impact the final system design. At this point, the analysis will also likely include a first-level cost analysis. From this, the engineers will develop an initial computer model of a system. The analysis might include more than one system option for further evaluation.

35. In the **Demonstration Stage**, the engineering team will develop more detailed computer models of the system components including a second-level cost analysis. They may identify key issues such as material requirements, working temperatures, etc. that require further

[5] The Design Process, University of Connecticut, nd/na, www.engr.uconn.edu/~abboud/Lect-2.ppt; Energy Technology Demonstration & Deployment, Ambuj Sagar and Kelly Sims Gallagher; Energy Technology Innovation Project Science, Technology, and Public Policy Program Belfer Center for Science & International Affairs John F. Kennedy School of Government, DOE, nd, Harvard University

evaluation. Engineers might design and build simple physical models of components, i.e., a receiver, a concentrator facet, etc., for testing under actual temperature and flow conditions to validate their computer models. After fully validating the technical performance, the engineers will likely "freeze" the design to a specific configuration and use computer models to set the interface requirements and the specifications for each component. The component interface requirements are critical because they identify how the component parts will work together to create the system as a whole. The team is prepared to design the first system prototype based on this interface document. However, they likely have also identified potential issues and shortcomings and may focus on these as they proceed.

36. In the **Prototype Stage**, the first system prototype is built and tested under actual operating conditions. During short and long-term testing, a number of issues will arise that require redesign and reevaluation. One or more of the components may not perform acceptably and other design options may need to be considered. This is a long stage of the development process and requires iteration, extended operation of the prototype system, and the collection of detailed, long-term data. At the end of this process the engineers have a detailed, validated computer model of the system, second-generation detailed component and system designs, and a document defining the system specifications and interface requirements. The next step is to scale the system for market entry.

37. The first step in **Market Entry Stage** may be characterized by building, installing, and operating for an extended period of time a scaled system. One of the most important issues to identify is the actual scope and cost of Operation and Maintenance of the plant.

38. Once data and information has been collected from the scaled system operation, the engineering team will have the information required to support actual project development, i.e., to develop a detailed cost proposal, to secure financing, to obtain all regulatory permissions to operate a power plant, and to negotiate a utility-scale power purchase agreement, so that the project can be built and electricity provided to the grid.

39. It is important to recognize that there is substantial iteration built into this process. For example, one might find a problem with a component that occurs during Stage 4 long-term operation and choose to redesign and retest that component in order to meet system specifications and operational goals. This could involve as simple a task as replacing one material with another, for example carbon steel with stainless steel, and retesting and evaluating the component performance. Or, it could involve replacing an entire component design because it does not meet system requirements, i.e., replacing one receiver design with another and completing an acceptance test regime.

40. As I explained, this is not the only model for energy technology development. Some may differ in whether a particular activity is in Stage 1 or Stage 2 and there is a great deal of

latitude in how and when tasks are undertaken. However, this is a simplified presentation of the development process and consistent with other process descriptions.

41. Regardless of the details associated with the engineering stages of development, the process typically involves a team of engineers having a range of education, work experience, and engineering disciplines. For example, the team developing a solar dish system would typically involve senior and junior engineers with masters and bachelors degrees, mechanical engineers with power, structural design, metallurgy, and systems backgrounds, electrical engineers with controls and power experience, and perhaps a chemist or two.

4. EVALUATION OF THE IAS SOLAR DISH TECHNOLOGY

42. During my site visits on January 24, 2017 and April 4, 2017, the components of the IAS Solar Dish Technology were not operating, were not assembled as a system, and were not producing electrical power or heat using solar energy.

43. Based on my observations during the site visits and the materials I have reviewed for this case, the IAS Solar Dish Technology is not currently capable of producing electrical power or heat using solar energy.

44. From the information I have reviewed, I see that over time, the designs of different and fundamental system components have changed. This alone reflects an absence of engineering expertise, discipline and rigor in the design and execution of the IAS Solar Dish Technology.

45. The most glaring example of the lack of engineering expertise is the fact that the components of the IAS Solar Dish Technology have not been designed to work together as a system. The components, the dish, receiver, and turbine (to the extent that they have been designed at all) are stand-alone devices designed without consideration for the respective engineering interfaces or having the components work together as a system.

46. The most egregious examples of a lack of systems analysis in the design of the IAS Solar Dish Technology are

a) the incompatibility of the concentrator and receiver designs that lead to low optical and thermal efficiencies;

b) the change of the collector working fluid from water to molten salt and then to synthetic oil resulting in a lower cycle operating temperature;

c) the design of a turbine that will not work at the reduced cycle temperatures associated with using synthetic oil as a heat transfer fluid;

d) the claims that a boiler and condenser are not required as part of the Rankine power cycle (they are required); and

e) no sensors, controls, control system, suitably sized generator, identified or even considered as part of the system.

47. Because of these and other serious flaws in the design and execution of the IAS Solar Dish Technology described below, and based on my observations during the site visits and the materials I have reviewed for this case, it is my opinion that the IAS Solar Dish Technology is not now and has never been capable of producing electrical power or heat using solar energy.

4.1. Documents and Information Reviewed

48. For any solar energy project design and/or operation, I would expect that the designer and/or operator would have the following kinds of documents:

a) 400 to 600 detailed engineering analysis and design drawings for the solar dish, receiver, heat exchangers, and turbine-generator;

b) detailed component models describing operation under a range of operational conditions;

c) system performance models describing the system output as a function of the solar energy input;

d) component interface documents describing in detail the physical and operational interfaces between the components, i.e., concentrator and receiver, receiver and piping, piping and pumps, flowrates and heat exchangers, steam flow and turbine, etc.;

e) test and operational databases detailing the objectives and results of operational tests and results for system components;

f) lists of materials for components including a cost analysis for the materials and manufacturing of the components;

g) a bottom-up system cost analysis rolling up the component, manufacturing and installation cost for the IAS Solar Dish Technology; and

h) system specifications and operational requirements.

49. I reviewed all of the documents and other materials identified in Appendix II, including the documents identified in Defendants' RaPower-3, LLC, International Automated Systems, Inc., LTB1, LLC, and Neldon Johnson's Supplemented Production of Documents. The DOJ's Document Requests asked for the kinds of documents listed in paragraph 48.

50. But I did not see, in those documents or in any of the other materials I reviewed for this case, the kinds of documents, such as those listed in paragraph 48, that I would expect to review in the context of the engineering design and/or operation of a solar energy project at any Stage of Engineering Development.

51. I also understand from Mr. Johnson's testimony during his deposition[6] that he does not keep records of tests that he conducts on components of the IAS Solar Dish Technology or the purported system as a whole, or data from those tests.

52. Among all of the documents I reviewed, the documents that I identify as having the most technical information are:

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[6] Deposition of Neldon Johnson, June 28, 2017, 66:1-24; 69:4-10; 150:2-151:17; 152:13-153:4; 164:3-165:7; 186:20-188:19.

a) New Solar Breakthrough May Compete with Gas, na/nd. I saw multiple versions of this document in the materials I reviewed. A version of this single document was produced to me in two parts, as Plaintiff's Exhibits 16 and 17 (Pl. Ex. 16 and 17) are the basis of my analysis in this report. I received what appears to be a more recent version of this document, marked as Pl. Ex. 559. Generally, both versions are similar and, in fact, in some areas identical. But, there are differences between the two documents and, where these differences are important, I will make note of the differences in my evaluation. Generally, this document (in any of its versions) is the most complete description of the IAS Solar Dish Technology. The document itself does not identify the author, but Mr. Johnson testified that he wrote parts of it and incorporated writings from other people into it.[7]

b) 15 Years in the Making, IAS Research and Development Timeline, by Matthew Shepard, nd, which has been marked as Pl. Ex. 437 in this case.

53. In all of the information that I reviewed, there were only a couple dozen engineering-type drawings, and limited or no analysis of the component and system design details, and performance.

54. I visited the "Manufacturing Facility," the "R&D Site," the "Construction Site," all in Millard County, Utah, identified by Defendants on January 24, 2017 and again on April 4, 2017. During the tour on April 4, a videographer took film of the visits to the three sites. These visits also provided me with technical information that I use in my analysis.

55. Throughout this report, I provide some technical and engineering analysis of the IAS Solar Dish Technology, its components, and evaluate what its possible performance would if it were ever assembled into a working system. Because I do not have the engineering data that I would normally use for this type of analysis, I provide my best estimates based on the available materials and my own knowledge of scientific, technological, and engineering principles that apply to the components. Because I do not have actual data on the performance of the individual components, I am forced to make assumptions and estimates based on the information I reviewed and my own experience.

4.2. Qualifications of the Design Team

56. It is my understanding that the inventor and primary designer of the IAS Solar Dish Technology is Mr. Johnson. He is the only person identified by name who worked on design and performed engineering-type work on the IAS Solar Dish Technology[8].

57. My understanding of Mr. Johnson's education and technical background is that he does not have an engineering, physics, or science degree.[9]

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7 Deposition of Neldon Johnson, June 28, 2017, 173:6-185:2.
8 Deposition of Neldon Johnson, June 28, 2017, 134:21-135:19.

58. In the documents and information I reviewed, I did not see resumes or curriculum vitae for Mr. Johnson, engineers, designers, technicians or others associated with the design and/or engineering of the IAS Solar Dish Technology.

59. Plaintiff's Exhibit 17 contains references to unnamed parties who purportedly analyzed or reviewed technical aspects of the IAS Solar Dish Technology. I did not see separate reports from these parties in the materials I reviewed, nor are the specific contributions of these parties clearly identified in these exhibits.

60. Unless I state otherwise below, without knowing these reviewers' names, biographies, C.V.s, and technical experience, and what data and information they were given to review, I cannot give serious consideration to information in these exhibits that purportedly came from these unnamed parties

61. I will identify these reviewers as appropriate in the discussion of the components below.

62. In the documents and information I reviewed, I found no indication that any person is or was qualified to design, build, and/or bring to Engineering Stage 4, Market Entry, the IAS Solar Dish Technology. I found no indication that any person who worked on the IAS Solar Dish Technology has or had any substantial technical background, including a bachelors or masters degree in any relevant field. I found no indication that any person who worked on the IAS Solar Dish System was or is a mechanical engineer with a power, structural design, metallurgy, or systems background or was or is an electrical engineer with controls and/or power experience.

4.3. Proposed IAS Solar Dish Technology

63. The design of the IAS Solar Dish System as proposed is a hybrid of the parabolic trough and the dish/engine technologies. The proposed system purports to collect thermal energy from refractive dish technology using Fresnel lenses, and transfer the collected thermal energy to a centrally located turbine/generator for electrical power production using a Rankine cycle.

64. A schematic diagram of the system, as best I understand it, is proposed in Pl. Ex. 16 to be configured as shown below in Figure 2.[10]

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[9] Deposition of Neldon Johnson, June 28, 2017, 16:8-17:17; Deposition of Neldon Johnson in *Securities & Exchange Comm'n v. International Automated Systems, Inc. and Neldon P. Johnson*, Civ. No. 2:98CV 0562S, (D. Utah May 10, 2001), 6:12-7:11, 10:14-11:9.

[10] Pl. Ex. 16 at US001850.

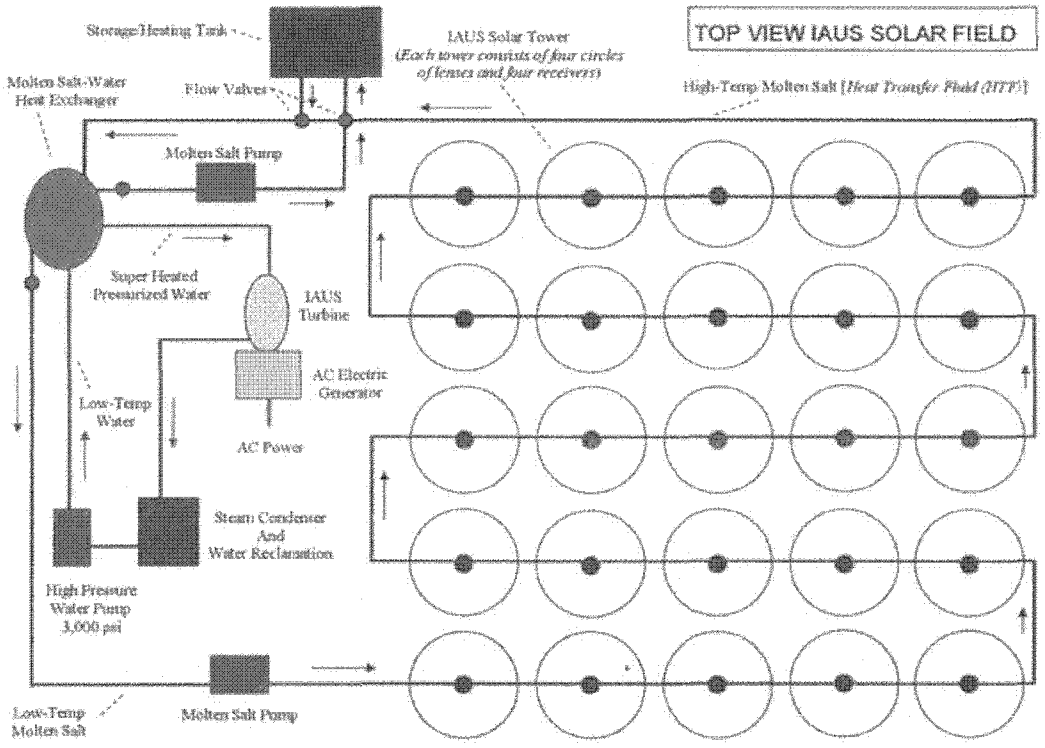

Figure 2 System Diagram Proposed for the IAS Solar Dish Technology

65. According to Pl. Ex. 16, the dark line in Figure 2 represents the flow of the working fluid through the system with each of the circles representing a solar collector. As the molten salt flows in through the collector field, it collects heat until it reaches the heat exchanger where the hot molten salt provides the heat to boil water, producing steam to drive Rankine cycle power block containing the turbine/generator and produce electric power for the grid. One issue is the single molten salt storage tank shown by the red box in Figure 2 above. In a typical molten salt storage system, there would be two storage tanks, one for hot salt and one for cold salt. When the system is operating, the cold salt would be removed from its tank, heated in the collector field, and deposited for storage in the hot tank. When needed to produce power, the hot salt would be removed and passed through the heat exchanger then returned to the cold tank. It is not viable for the storage system to have a single tank as depicted above because mingling hot salt and cold salt in a single tank will dilute the hot salt reducing the temperature of the salt available to power the system.

66. The system described in Figure 2 is sometimes referred to as a central engine system. Unlike the dish/engine systems described in paragraph 21 where each dish has a dedicated engine/generator and provides power through wires, the central engine system approach uses a centrally-located engine that is supplied with molten salt heated by a series of

concentrators in the collector field. Heat is collected from each of the dishes in parallel so that all dishes "dump" heated fluid into a common hot header system. Because each collector will provide molten salt heated to a different temperature, the salt will only be heated to the average temperature provided by the field. Therefore, the performance of the system will be defined and limited by the heating capacity of the poorest performing solar collectors.

67. The proposed IAS system in Figure 2 uses 25 concentrators in the collector field, connected in a series. A single turbine and power block would be powered by 25 collectors and together they would form a larger unit for power production. Defendants claim that this unit can be replicated throughout a large field to produce larger amounts of power.

68. I am aware of only two experiments to evaluate central engine systems, one by LaJet Energy Co. and the other a U.S. Department of Energy sponsored project with Georgia Power Company referred to as the Shenandoah Solar Total Energy Project (STEP). Both projects operated during the mid 1980s.

69. As far as I know, there is no published data on the performance of the LaJet dish project. My knowledge of the project comes from working with LaJet and Cummins Power Generation on the design of their dish/Stirling systems. The project at Warner Springs, CA, used LaJet's, reflective stretched-membrane dishes to boil water and produce steam to drive a 3.7 MW turbine generator. It was beset by a number of problems with components including the receivers and the concentrators and was terminated after only 3 years of operation.[11] The solar concentrators were made of a reflective silver film that was thought at the time to have a long lifetime but actually degraded due to environmental exposure. After the Warner Springs Project, LaJet sold their technology to Cummins Power Generation who proceeded to build and test a more conventional dish/Stirling system, similar to the ones described in paragraph 21.

70. Because it was a DOE project, the Shenandoah STE Project was far better documented than the LaJet effort. Prof. William B. Stine of Cal Poly Pomona was under contract to the DOE to evaluate the STE Project and other DOE activities and published some of his results in an online book[12]. The Shenandoah STEP central engine system uses solar energy collected from a field of 114 parabolic dish collectors to supply process steam, electricity, and cooling. The system provided energy to the Bleyle knitwear plant and electricity to the Georgia Power Company grid. Figure 16.17 of Prof. Stine's book shows the energy flows

[11] Private communication with former LaJet Chief Engineer Mr. Monte McGlaun, April, 17, 2017.

[12] Section 16.2.3 Shenandoah Solar Total Energy Project, Power From The Sun, copyright © 2001 by William B. Stine and Michael Geyer, http://www.powerfromthesun.net/Book/chapter16/chapter16.html

throughout the plant.[13] The collector working fluid that moves the heat around the plant is steam. The steam must move through large ducts between the receivers and the central engine. In the Shenandoah STEP, the dish concentrators collect 3348 kW of solar radiation but 781 kW (23%) of the energy is lost before it reaches the central engine. The heat loss is due to the receivers and the transport of heat through the system.

71. Of note is that the supplier of the dishes for the Shenandoah STEP, Solar Kinetics Inc., abandoned the central engine approach and went on to develop a dish/Stirling system (which moves electricity rather than heat) with Stirling Thermal Motors.

72. CSP researchers generally agree that the major weakness of central engine systems, similar in design to the proposed system for the IAS Solar Dish Technology, is the requirement that large amounts of heat must be transported via pipes to a centrally-located engine/generator. The act of transporting the hot collector working fluid through the pipes results in large thermal losses that drive efficiency down and costs up.

73. It is my opinion that the proposed IAS Solar Dish System of Figure 2 is subject to the same issues and problems that I've identified for previous central engine systems. In the materials that I reviewed, I saw no indication that anyone associated with the IAS Solar Dish Technology has considered, much less resolved, any of these issues.

4.4. The Solar Concentrator

74. Typical solar dishes are point-focus concentrators that must accurately track the sun in two axes and maintain the focus of the dish always on a small area where the thermal receiver is located. As illustrated in Table 2, dishes are the highest performing solar concentrators, capable of very high concentration of solar energy and, potentially, of very high-temperature, high-efficiency operation. This high level of performance requires that the dish structure be very stiff, precisely track the sun, and operate under 30 – 35 mph wind loads all while directing an accurately focused beam of solar energy into a small receiver aperture. This high level of performance also requires dishes to survive winds of ~ 100 mph.

75. Figure 3 is a photograph of the IAS refractive dish concentrator[14].

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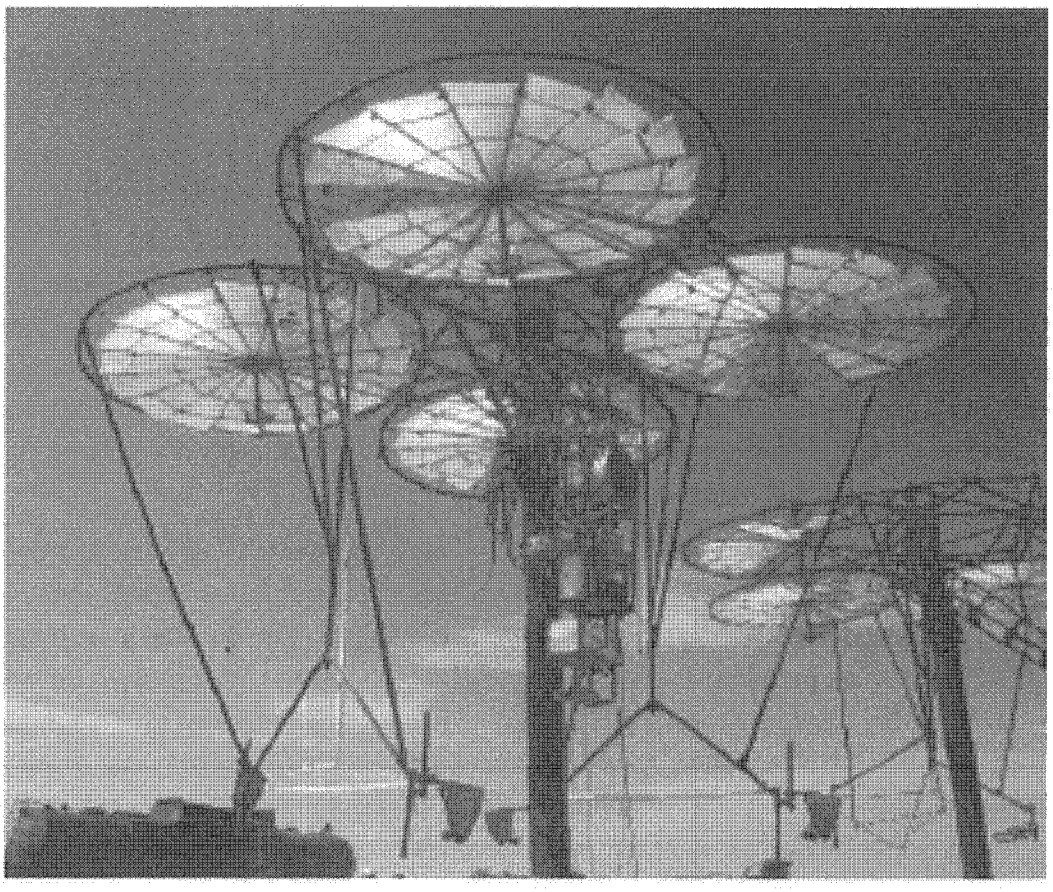
[13] Figure 16.17, Power From The Sun. Section 16.2.3 Shenandoah Solar Total Energy Project, Power From The Sun, copyright © 2001 by William B. Stine and Michael Geyer, http://www.powerfromthesun.net/Book/chapter16/chapter16.html

[14] Pl. Ex. 560, Photograph taken by the Author during the January 24, 2017 visit to the IAS Site.

Figure 3 IAS Solar Dish



76. The lenses used in the IAS Solar Dish design are Fresnel lenses made from acrylic plastic. Shown below in Figure 4 is a diagram of how a Fresnel lens is constructed.[15]

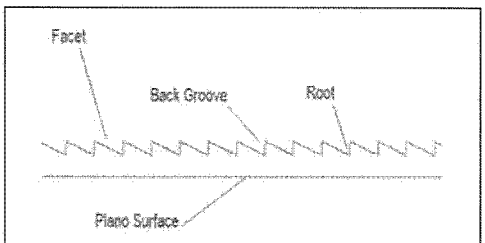


Figure 4 Fresnel Lens

The lens is an approximation of a continuous curved lens with each of the small facets having a slightly different and precise angle so that each incident solar ray is bent in a slightly different direction. Pl. Ex. 16 claims that the optical lenses are efficient, durable, require only low maintenance, and will "endure extreme weather conditions for more than 60 years with low degradation."[16] None of these claims is supported by analysis, test data, or reference in the documents and information I reviewed.

[15] Pl. Ex 17 at US001855.
[16] Pl. Ex. 16 at US001837.

77. Murray and French[17] tested acrylic sheets used for photovoltaic applications in a diverging solar simulator at irradiance levels of up to 50 kW/m^2 and found a 22% reduction in solar energy transmission after 10 years simulated laboratory exposure and 40% reduction after 25 years equivalent exposure. The acrylic material Murray and French analyzed is the same acrylic material used to manufacture IAS Solar Dish lenses. The reduced transmissivity would result in equivalent reduction in the power produced by the proposed IAS Solar Dish System.

78. From the documents that I reviewed, I understand that the concept of the IAS Dish design shown in Figure 3 is to have the 4 circular concentrator lens assemblies located at the top of the tower track the sun so that the planes of the four circular lenses remain perpendicular to the incoming solar rays throughout the day. Each of the acrylic lenses refracts (bends) the incoming solar rays so that the focus of each lens assembly impinges on a receiver hanging from the stringers below the lens array.

79. A typical dish receiver is designed to intercept the concentrated beam of solar energy (also called a "solar image") provided by the concentrator and transfer the absorbed solar energy to a circulating working fluid. To minimize thermal losses from the receiver, it must have as small an aperture as possible. To absorb the maximum amount of solar energy, the receiver aperture must be as large as needed to intercept the concentrated sunlight. This requires a tradeoff between the size of the solar image from the concentrator and the size of the receiver. While the solar receiver requires as small a concentrated solar beam as possible to reduce thermal losses, it is a difficult and expensive for the solar concentrator to direct the solar energy to a single small area on the receiver.

80. Because the IAS Solar Dish design has four circular Fresnel lens elements, it has unique challenges to accurately focus four highly concentrated solar images with stability on four receivers at the same time. Considering the path of a single incident beam of solar energy from its point of incidence on the outside surface of lens to the concentrated region on the receiver surface, some of the issues for the IAS Dish design are:

    a) because the Fresnel lens is an approximation of a continuous lens, its ability to provide an accurate solar image depends on its design, how well it is manufactured, how precisely it is installed and held on the dish, and its cleanliness;

    b) the lens assemblies must be rigidly supported in their mounting frames and the frames must also not deflect too much or the solar image will grow and not impact the receiver;

    c) the two-axis tracking system must be very accurate to assure that the lens assemblies are properly oriented to the incoming solar radiation;

[17] Solar Radiation Durability of Materials, Components and Systems for Photovoltaics, M. P. Murray, and French, R. H, IEEE Conference, 978-1-4244-9965-6/11, June 2011, Case Western Reserve Univ., Cleveland, OH

d) the structure of the dish must be rigid so that the tracking will be accurate; and

e) the receiver hangers must be stiff and not sway due to the tracking of the structure and wind loads. Any motion of the supports will reduce the intercept factor because the receiver will not always be optimally aligned to capture the concentrated sunlight.

81. All optical lenses in solar energy systems require cleaning to maintain maximum transmissivity of solar light and heat. Accumulated dust and dirt can degrade their optical performance.

82. The Fresnel lenses in the IAS Solar Dish are as subject to dust and dirt accumulation as any other optical lens. Unlike mirrored surfaces that have a single surface that must be cleaned (as with parabolic troughs, for example), the IAS Fresnel lens would have to be cleaned on both the top and bottom surfaces. In addition, the top side of the lens surface has small, delicate grooves that can collect dust and dirt and could be easily damaged when cleaning.

83. Lucite, the original manufacturer of the lenses, recommends keeping lenses clean with "an occasional washing with mild soap or detergent and water solution" or a combination of ammonia and water.[18] "Fine hair scratches may be removed or minimized by the use of a mild automobile cleaner polish."[19] But "cleansing materials containing abrasives ....should never be used."[20] "Gasoline, acetone, chlorinated solvents, or denatured alcohol tend to soften the surface of the plastic and often cause cracking."[21]

84. I have also seen claims that the optical lenses do not need to be washed.[22] This is simply not correct. The issue of cleaning the lenses raises questions of if/how IAS plans to maintain the initially high transmission of the acrylic lenses. .

85. Pl. Ex. 16 also claims that the lenses maintain their focal point without "manual fine-tuning."[23] This claim is not supported by analysis, test data, or reference in the documents and information I reviewed.

86. In the materials I reviewed, there is no analysis, no design details, no engineering drawings, no test data or performance data regarding: the two-axis tracking system accuracy; the stiffness of the concentrator structure and lens assemblies; the performance of the concentrator with and without wind load; the accuracy of the Fresnel lens assembly; the flux in the receiver plane provided by the Fresnel lens assembly; or the ability of the acrylic lens material to survive weather conditions and be cleaned.

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[18] Pl. Ex. 561 at Lucite0058.
[19] Pl. Ex. 561 at Lucite0058.
[20] Pl. Ex. 561 at Lucite0057.
[21] Pl. Ex. 561 at Lucite0057.
[22] Deposition of R. Gregory Shepard, May 22, 2017, 192:8-193:14.
[23] Pl. Ex. 16 at US001837.

87. Using the limited technical information I have already identified in this report and my own observations of the technology as it existed during my site visits, I have analyzed the IAS Solar Dish Technology as if it were operating as a system. The first step of my analysis is to evaluate the optical efficiency of the solar concentrator which includes the amount of concentrated solar energy that is intercepted by the receiver. My analysis, assumptions and references are listed Appendix IV.

88. To determine the interface between the dish and the receiver once the solar energy has passed through the lens assembly, we need to determine the size of the solar image in the plane of the solar receiver. This is commonly done using one of two techniques: 1) measuring the solar flux distribution in the receiver plane, or 2) using a calorimeter (like a solar receiver) to measure the power absorbed using different aperture diameters. Because I saw no test data for the lens in the documents I reviewed, I used the video clip Solar Lens Test[24] from the RaPower3 Website to estimate the image diameter in the focal plane at 1 meter.

89. Pl. Ex. 17 states that "The power generating requirements determine the diameter. For this project, the lens diameter of 436 inches has an area of 96.32 sq. meters and has a 100 kW collection capacity potential."[25] The more recent document at Pl. Ex. 559 states that the diameter of the circular lens is 22 feet.[26] I used the information from Pl. Ex. 559 because it is consistent with what I saw during my two visits to the Manufacturing Facility, the R&D Site, and the Construction Site.

90. Using the area of one circular lens on a good solar day (1 kW/m^2), the 22 foot diameter for one of the circular lenses, the transmissivity reported by Lucite[27] for the solar energy spectrum, assuming a 95% accuracy for the lens manufacturing accuracy, and 6.9% loss due to soiling and dust, I estimate that one of the four lenses on a dish will transmit 27.75 kW of solar energy under normal operating conditions. This calculation is shown in Appendix IV.

91. Next, because I do not have engineering design drawings for any proposed receiver, I used the photograph of the tubular receiver[28] (also shown in Figure 5(c)) taken during my tour of the Manufacturing Facility to estimate the dimensions of the receiver aperture at 60 cm by 50 cm. The receiver area is less than 38% the area of the image provided by the circular lens assembly but, since the flux profile is most likely a Gaussian one, I estimated the intercept factor at 0.6. The video clip at Pl. Ex. 562 was taken with the lens assembly supported by a construction crane so there were no structural deflections or alignment

[24] Pl. Ex. 562.
[25] Pl. Ex. 17 at US001855.
[26] Pl. Ex. 559 at Ra3 023534.
[27] Pl. Ex. 563 at Lucite0751
[28] Pl. Ex. 564, Photograph of the receiver taken by the Author on his January 24, 2017 visit to the Manufacturing Facility.

issues included in the image. Allowing for a 90% tracking accuracy and including structural deflection, I calculate a revised intercept factor for the receiver of 0.54 and 15.0 kW of solar energy actually incident on one receiver surface. The total power available from a dish would be four times this amount or 60 kW.

92. Analysis shows that the solar image in the receiver plane is much larger than expected based on the ray-trace model.[29] The receiver aperture is too small to collect all of the transmitted solar energy but it is much larger than it should be to have low heat losses. This could be due to inaccurate manufacture of the lens tooling, poor alignment of the lenses within the lens assembly, or inaccurate determination of the focal plane. Table 4 below is a summary of the optical characteristics of the IAS Solar Dish as reported in Pl. Ex. 17[30] and the results based on my analysis. The low value for the optical efficiency as reported by me is most likely due to a combination of factors in the manufacture of the lenses and a lack of stiffness in the concentrator tracking structure.

Table 4 Evaluation of Optical Characteristics Of the IAS Solar Dish

PARAMETER	IAS[31]	My Calculations[32]	MY REFERENCE
Transmissivity	0.90	0.89	Lucite0751
Lens Cleanliness	0.931	0.931	Same as IAS.
Lens Manufacture Accuracy	1.00	0.95	Engr. Est.
Receiver Intercept	1.00	0.54	Engr. Est.
Optical Efficiency	0.84	0.425	

93. During my site visits on January 24 and April 4, 2017, I did not see an IAS concentrator in working order -- receiving or concentrating solar energy while tracking the sun.

94. At the R&D Site, none of the lens assemblies were fully populated with lenses and most of the lenses that were on the concentrators were broken. Also, there were no receivers in evidence at the R&D Site or installed on the concentrators.

95. Of the solar concentrators with receiver supports installed, the supports were not sufficiently stiff to keep the receiver mounts from moving in the wind. For example, the wind on April 4, caused the receiver supports to sway even though the IAS dish was not tracking the sun.[33] If the dish were operational (which it is not), this movement would affect the tracking intercept factor because the receiver will not always be aligned to capture the solar image which is transmitted by the lens assemblies.

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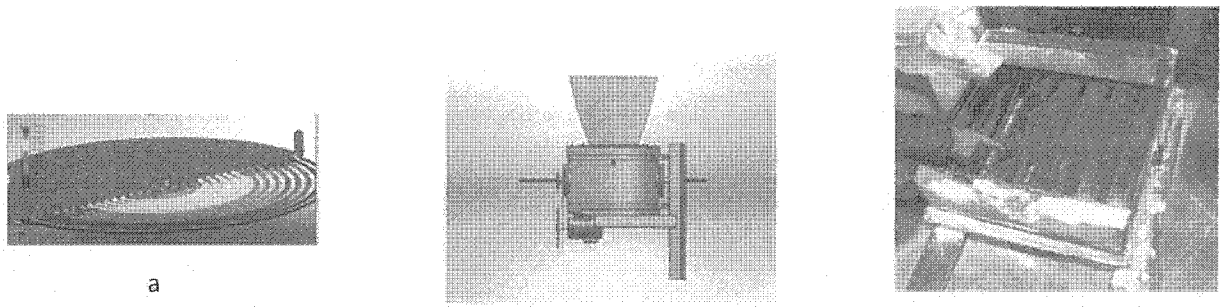
[29] Pl. Ex. 17 at US-001863.
[30] Pl. Ex. 17 at US-001888.
[31] Pl. Ex. 17 at US 001888.
[32] Appendix IV.
[33] Pl. Ex. 509, Video 12_4_38-5_15.

96. Based on the information provided and my analysis, my opinion is that the solar concentrator design is at Stage 1: Research Phase of the Engineering design process of Table 3.

4.5. The Solar Receiver

97. Shown in Figure 5 are three of the solar receiver design concepts[34] I saw proposed for use in the IAS Solar Dish Technology in the materials I reviewed.



a b c

Figure 5 Three of the IAS Receiver Design Concepts

98. In the materials I reviewed, there is no analysis, no design details, no engineering drawings, no test data or performance data regarding: the design of the thermal receivers. There is also no consistent set of design criteria relating to the selection of the collector working fluid and whether or not the system will have thermal energy storage.

99. The initial concept, (a) in Figure 5, is a coiled receiver that (according to Pl. Ex. 16) purportedly contains water at 1100F (570 C) and has a thermal efficiency 90%[35]. According to statements in Pl. Ex. 16, this concept would purportedly supply super-heated liquid water to the turbine.[36] This is thermodynamically impossible as supercritical water only exists at temperatures below the critical point of 705 F. This concept actually would supply superheated vapor to the turbine. Transport of steam vapor around the collector field would require larger piping or ducts for transport of water and would have to accommodate the steam at the 1100 F (570 C) and high pressure of 3200 psi (230 kg/cm^2).

100. During my visits January 24 and April 4, 2017 I did not see an actual receiver like Figure 5(a) at the Manufacturing Facility or at the R&D Site, or the Construction Site. There is no

[34] For Figure 5(a): Pl. Ex. 16 at US001839; Figure 5(b), Pl. Ex. 16 at US001840; Figure 5(c), Pl. Ex. 564 and Pl. Ex. 565, Site Tour Video Clip 3 10:30:24 through 10:31:50.
[35] Pl. Ex. 16 at US001838-39.
[36] Pl. Ex. 16 at US001841.

indication, in any of the materials I reviewed, that the receiver in Figure 5(a) has ever actually been used in a system with the IAS Solar Dish Technology to generate electricity.

101. The receiver concept shown in Figure 5(b) has a spherical ball as the thermal receiver, a secondary concentrator (the cone at the top) ostensibly to improve the intercept factor, and a motor control most likely meant to "adjust" the attitude of the receiver to capture the solar radiation. The motor and the cone to improve the solar intercept may be design responses to adjust to the swaying motion of the suspended receivers and the large size of the solar image produced by the concentrator. Pl. Ex. 16 Figure 4.1, "New solar receiver showing the concentrator along with the movable heat exchanger," is the only description of this receiver in Pl. Ex. 16.[37]

102. During my visits January 24 and April 4, 2017, I saw several "Magic Balls"[38] for the receiver in Figure 5(b) at the Manufacturing Facility. There were numbers of cones for the receiver in storage also at the Manufacturing Facility. There were cones at the R&D Site, but they were generally broken, bent, and in pieces, strewn about at the R&D Site. I saw no actual assembled units of the receiver depicted in Figure 5(b) nor did I see any of these receivers in operation. There is no indication, in any of the materials I reviewed, that the receiver in Figure 5(b) has ever actually been used in a system with the IAS Solar Dish Technology to generate electricity.

103. From the materials I reviewed and comments made by Mr Johnson[39], the receiver shown in Figure 5(c) appears to be the most recent concept being considered for use in a system with the IAS Solar Dish Technology.

104. Mr. Johnson described the configuration of the receiver in Figure 5(c) during my site visit on April 4, 2017[40]. Shown in Figure 5(c) are seven glass tubes coated black on their inside surfaces. My understanding based on Mr. Johnson's description is that the receiver is intended to work as follows: a copper heat exchanger coil would be inserted into each tube and a molten salt or, as discussed below, synthetic oil heat transfer fluid, would be circulated through the coil. The remaining space within the glass tube would be filled with sodium/potassium nitrate salt mixture. The black coating on the inside surface of the glass tube would absorb incident solar radiation, heat the coiled tube and salt, which in turn would heat the oil flowing through the heat exchanger coil. The hot collector working fluid would then be transferred to a common header pipe for the solar collectors in the field.

105. The location of the black surface on the inside of the glass tubing is poor engineering design because it locates the hottest point in the receiver on the glass where heat is readily

[37] Pl. Ex. 16 at US001840.
[38] Pl. Ex. 8A at Gregg_P&R-000576
[39] Pl. Ex. 565, Site Tour Video Clip 3 10:30:24 through 10:31:50.
[40] Pl. Ex. 565, Site Tour Video Clip 3 10:30:24 through 10:31:50.

lost to the environment. During the site visit on April 4, Mr. Johnson also showed us a more conventional receiver tube design[41] comprising a black coated pipe located along the center axis of a glass tube in which a vacuum is created. This is precisely what a parabolic trough receiver is and it has much lower heat losses because the solar energy absorbed on the black pipe is insulated by the vacuum.

106. Apparently, Mr. Johnson does not recognize the advantages of the latter tubular design and supports his current design of the black-painted glass tube.

107. During my visit to the R&D Site on April 4, 2017, I was informed by Mr. Johnson that he would replace the molten-salt working fluid with synthetic oil.[42] This was also confirmed by his statements during his deposition.[43] In Appendix IV, I calculate the thermal losses from the IAS receiver in Figure 5(c) by assuming that the temperature of the black coating is at 400C, the highest working temperature of the hot oil used in the receiver, and that of the environment at 21C. The results show that the losses from the four receivers on a dish would be almost 23 kW or about 38% of the total energy incident on the receiver, resulting in a receiver efficiency of 62%.

108. For comparison, I calculated the actual thermal losses from a standard parabolic trough receiver using the results of a peer-reviewed paper. Burkholder and Kutscher[44] measure the thermal losses from a Schott PTR Receiver tube, which is similar to the tubular one described by Mr. Johnson above in paragraph 105, at a temperature of 400C. I calculate the Schott PTR receiver's efficiency at 96%. These calculations are shown in Appendix IV.

109. The limited information provided on the receiver design of Figure 5(c) and the tube he showed during the April 4, 2017 tour does not explain the purpose of the molten salt on the inside of the receiver, and I do not understand it. It may provide a small amount of thermal storage but could also create some significant problems.

110. I am not aware of molten salt ever being used with copper piping. Parabolic trough systems use a stainless steel piping in the receivers and carbon steel piping when transporting hot oil at the 400C. At higher temperatures, nickel alloys are the most common metals used in molten salt systems. Also, molten salt will expand and contract as it melts and freezes at 220 C. I saw no indication in the materials I reviewed that Mr. Johnson has considered materials compatibility for molten salt and copper or the molten salt expansion-freezing issue and the stresses it will put on the piping.

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[41] Pl. Ex. 565, Site Tour Video Clip 3 10:30:24 through 10:31:50.
[42] Pl. Ex. 565, Site Tour Video Clip 3 10:30:24 through 10:31:50.
[43] Deposition of Neldon Johnson, June 28, 2017, 161 16 - 25
[44] Heat Loss Testing of Schott's 2008 PTR70 Parabolic Trough Receiver F. Burkholder and C. Kutscher, National Renewable Energy Laboratory, Technical Report NREL/TP-550-45633, May 2009

111. In paragraph 91, I discussed the mismatch between the size of the receiver aperture for Figure 5(c) and the size of the solar image. In fact, even though the receiver aperture is too small for the solar image created by each of the circular lens assemblies on the IAS dish, it is far too large in actual area. This results in excessive thermal losses.

112. In my opinion, this is one example of how the designs of the components of the IAS Solar Dish Technology appear to have been done independently and without consideration of the requirements of the system as a whole. In the absence of an interface specification document to define the respective design parameters for different components, there is no clarity on how the component parts of the system should work together.

113. During my site visits on January 24 and April 4, 2017, I did not see the receiver in Figure 5(c) in operation in any system, or in operation with any other component of IAS Solar Dish Technology.

114. There is no indication, in any of the materials I reviewed, that the receiver in Figure 5(c) has ever actually been used in any system, or with any other component of the IAS Solar Dish Technology.

115. During my site visits on January 24 and April 4, 2017, I did not see any IAS receiver in operation either in testing or in operation in any system, or with any other component of IAS Solar Dish Technology at the Manufacturing Facility, at the R&D Site or at the Construction Site.

116. Based on the lack of design, engineering analysis, and performance test data for receiver, and my observations on the site visits, it is my opinion that the IAS solar receiver design is at Stage 1: Research Phase of the Engineering design process of Table 3.

4.6. The Collector Working Fluid

117. In the information that I reviewed, different working fluids have been identified as options to collect the heat from the solar collector field. In Pl. Ex. 16, water is initially identified as the working fluid and stated incorrectly to be liquid at 1100 F, as discussed in paragraph 99. The system schematic diagram of Figure 2, above, identifies the collector working fluid as molten salt. But then, during my visit to the R&D Site on April 4, 2017, I was informed by Mr. Johnson that he would replace the molten-salt working fluid with synthetic oil[45]. This was confirmed in Mr. Johnson's deposition.[46]

[45] Pl. Ex. 565.
[46] Deposition of Neldon Johnson, June 28, 2017, 161 16 – 25

118. Each of these choices of the collector working fluid has a major impact on the design of the receiver, heat transfer piping, and boiler heat exchanger. None of these "options" can be considered independently of the system design as a whole and each directly affects the designs of all of the components.

119. In the materials I reviewed, there is no analysis, no design details, no engineering drawings, no test data or performance data regarding the collector working fluid.

120. Changing the collector working fluid completely alters the design specifications for the system components, including the receiver, pumps, piping, heat exchangers, and boiler. Because different collector working fluids have different properties and different temperature ranges of operation, component designs for one working fluid will not work for a different one.

121. First, considering water/steam as the collector working fluid, as initially claimed in Pl. Ex. 16, the collector working fluid is not liquid water as stated but superheated steam vapor at 1100 F (590 C) and a pressure of more than 3200 pounds per square inch (psi) (230 kg/cm^2). As demonstrated in the LaJet and Shenandoah projects, steam ducts would be required to transport high temperature, high pressure steam around the collector field resulting in high thermal losses that severely penalize the performance of the technology.

122. Second, the system design drawing in Pl. Ex. 16 (Figure 2 above) clearly identifies the collector working fluid as molten salt. The significance of using molten salt (a 60:40 mixture of sodium/potassium nitrates) as the working fluid is that it provides a potentially high temperature of operation ~565 C (1050 F) and the means for storing thermal energy. The drawback of using molten salt as the working fluid is that it freezes at 220 C (431F) and is corrosive when in contact with common metals, especially at higher temperatures

123. The design of Pl. Ex. 16 (Figure 2) contains a single molten salt storage tank which cannot operate because the addition of hot salt to cold salt would substantially compromise thermal storage by diluting the fluids and reducing the mixture temperature. All molten salt storage systems in commercial operation today use a two-tank system comprising separate hot and cold tanks. Hot molten salt from the collector field is typically collected in the hot tank for use in the boiler at night or when the sun is not available to generate steam for the turbine. The cold salt is then put into the cold tank which supplies cold salt to the collector field to be heated and either used directly in the boiler or stored for later use in the hot tank.

124. Because the molten salt freezes at relatively high temperatures (220 C), it is normally used in a configuration that requires only short runs of piping that must be heat traced (i.e., the pipes must have their own independent electrical heating) at all times. If molten salt freezes in a pipe, it is a long, difficult process to thaw it out and reestablish salt flow.

Therefore, it would not be recommended to use molten salt as the working fluid in piping systems described in Pl. Ex. 16 (Figure 2).

125. During my visit to the R&D Site on April 4, 2017, I was informed by Mr. Johnson that he would replace the molten-salt collector working fluid with synthetic oil.[47] This would have a significant impact on the design and potential performance of the IAS Solar Dish Technology because oil has a lower working temperature than molten salt. Using oil reduces the maximum Rankine cycle operating temperature from about 1000 F (550 C) to ~ 750 F (400 C) because the oil degrades at and above 400 C.

126. There are no piping diagrams for the distribution and routing of any of the collector working fluids identified in Pl. Ex. 16 through the solar field or through the power block. But, the type of piping layout required would be similar to the ones used in parabolic trough systems that also use synthetic oil working fluid at temperatures near 750 F (400 C) and supply and return piping headers for the collector field.

127. One of the operational issues associated with the trough systems has been oil leaks at the flexible connections, high-temperature flex hoses and/or rotating joints, that are required between the fixed headers and the rotating collectors. Parabolic trough systems have ~32 flex-hose-type connections per MW of installed power. I estimate that a system using IAS Solar Dish Technology will have more than 500 connections per MW of installed capacity. When visiting the R&D Site, I observed what appeared to be metal-reinforced tubing similar to what would be obtained at a hardware store for washing machine hoses dangling from the solar collectors. As these hoses may be intended to transport the hot oil, it is my opinion that they are not adequate or appropriate for this application because they will not be able be able to operate at the required 400 C (750 F) temperatures.

128. Operation and maintenance of flexible connections in the field represents a significant O&M issue for parabolic trough plants. Due to the significantly larger number of hoses required, it is my opinion that this will be an even greater challenge for any system that uses IAS Solar Dish Technology, i.e., increasing thermal losses and operation and maintenance costs.

129. In the information that I have reviewed, there is no indication that anyone has accounted for or is even aware of the potential issues associated with the design and operation of the flexible connections in the collector field of the proposed IAS Solar Dish Plant.

130. The decision of which collector working fluid to use has a direct impact on the operating conditions of the system's power cycle, as I will describe below in the "Turbine Design" section.

[47] Pl. Ex. 565; Deposition of Neldon Johnson, June 28, 2017, 161 16 – 25.

131. During my site visits on January 24 and April 4, 2017, I did not see the IAS Solar Dish Technology working with any collector working fluid.

132. Based on the information and materials I have reviewed, I understand that Mr. Johnson just recently decided to us a synthetic oil as the collector working fluid with the IAS Solar Dish Technology. Because the choice of working fluid is critical to the design and construction of system components and component interface requirements, it is my opinion that the entire IAS Solar Dish System is at Stage 1: Research Phase of the Engineering design process of Table 3.

4.7. The Bladeless Turbine

133. The IAS bladeless turbine is shown disassembled in Figure 6.[48] There is a film clip movie of it running without back pressure or load from the RaPower3 Website[49].

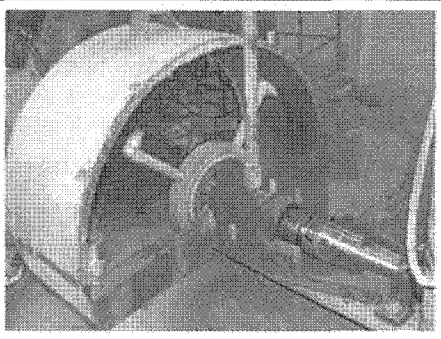

Figure 6 IAS Turbine

134. There are no engineering analyses, no engineering drawings, and no short-term or long-term test results and no performance data for the turbine in the materials I reviewed.

135. Pl. Ex. 16 asserts that the collector heat transfer fluid will be water/steam.[50] Assuming that water/steam is the collector heat transfer fluid, Pl. Ex. 16 also claims that the turbine requires no heat exchangers (neither a boiler nor a condenser) because the same water/steam would also be the cycle working fluid. Mr. Johnson maintains that he can use the water heated in the collector field as the cycle working fluid directly in the turbine and forego the need for a boiler or a condenser.

136. Further, in Mr. Johnson's proposed configuration, he maintains that the turbine housing will be the condenser. But there is not sufficient heat transfer area in the turbine housing alone to provide the required conditions for stable operation of the turbine. The condenser serves the power cycle by removing the heat of condensation and by maintaining back pressure on the turbine for high Rankine cycle efficiencies.

137. If the system is operated without a boiler, the water from the collector field would have to be continuously treated or it would deposit minerals on the turbine and piping in the system. Mineral deposits or other impurities in the water will degrade performance of any

[48] Pl. Ex. 566, Photograph taken by author January 24, 2017.
[49] Pl. Ex. 567, Video Clip from RaPower3 Website: SolarTech04.
[50] Pl. Ex. 16 at US-001841.

component and can ultimately lead to system break-down. I saw no indication in the materials I reviewed that anyone has evaluated this concern.

138. None of these claims is supported by analysis, test data, or reference in the documents and information I reviewed.

139. Mr. Johnson has also claimed that molten salt is the collector heat transfer fluid. If molten salt is used as the collector working fluid, then both boiler and condenser heat exchangers are required to maintain separation between the molten salt and the steam in the Rankine cycle and support high efficiency of the power block. The use of molten salt also requires a specially designed boiler made of nickel alloys to produce steam supply for the turbine.

140. If synthetic oil is used as the collector working fluid, similar to the molten salt, the system requires both boiler and condenser heat exchangers for the same reasons.

141. In Pl. Ex. 17, Sierra Engineering Inc. is identified as the designer performing the parametric sizing and performance of the bladeless steam turbine.[51] The document also names other unidentified, "third party" reviewers of the turbine design and other components of the IAS Solar Dish Technology.[52] Reports from Sierra Engineering and other reviewers were not in the materials I reviewed. I am not able to determine what parts, if any, of Pl. Ex. 17 contain the actual evaluations of these reviewers or if the contents were modified by someone other than the reviewers.

142. Information purportedly from Sierra Engineering lists the baseline 1 MW turbine design as having inlet conditions of 3200 psia steam at a temperature of 1000F.[53] Because I have no engineering information of any kind for the turbine, I cannot confirm that their recommendations, as listed in the document, have been incorporated in the final design.

143. The turbine analysis and design purportedly from Sierra Engineering Inc. appears to be very complete in that it includes thermodynamics, fluid flow, and structural analysis models. The assumptions for the models are listed and seem reasonable.[54]

144. Pl. Ex. 17 states "It is important to note that the minimum steam inlet temperature is above 760 F; at lower temperatures the nozzle exhaust velocity will not be sonic."[55] This means that the purported Sierra Engineering turbine design is for the system with inlet steam conditions listed above, i.e., 3200 psia and 1000F. These inlet steam conditions can only potentially be achieved if the collector working fluid is superheated steam or molten salt.

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[51] Pl. Ex. 17 at US001871.
[52] Pl. Ex. 17 at US001870.
[53] Pl. Ex. 17 at US001872.
[54] Pl. Ex. 17 at US001871-86.
[55] Pl. Ex. 17 at US001878.

145. However, if the IAS Solar Dish Technology utilizes synthetic oil, that collector working fluid has a maximum temperature of only 400 C (750 F). This limits the maximum system steam operating temperature of any system proposing to use the IAS Solar Dish Technology to less than 400 C (750 F) temperature because of heat transport and boiler heat exchanger losses. In other words, according to the analysis presented in Pl. Ex. 17, the turbine as designed will not work with synthetic oil as the collector working fluid.

146. Also noted in Pl. Ex. 17, purportedly by the Sierra engineers; "Turbine specific power (Shaft Power/Mass Flow) improves with increasing steam inlet temperature. This should result in the increased overall cycle efficiency, as reduced flow rates will also reduce pump power. Thus the figure of merit should be turbine specific power and not turbine component efficiency."[56] The important point here is that the Rankine cycle efficiency determines how much power is provided to the power grid, not the turbine efficiency alone. In the materials I reviewed, it appears that Defendants erroneously used turbine efficiency (rather than Rankine cycle efficiency) to calculate system efficiency.[57]

147. During my site visits on January 24 and April 4, 2017, I did not see the IAS turbine in operation. I saw the same disassembled turbine in the same location at the Manufacturing Facility on both of my visits. I did not see any turbine parts being manufactured at the Manufacturing Facility. Also, I saw no turbines at the R&D Site or at the Construction Site.

148. According to Pl. Ex. 437, the turbine was designed and developed from 2001 – 2004 and underwent "long-term testing" from 2006 through 2010, and a proof-of-concept test in 2004. Because the turbine is such an important part of the IAS Solar Dish Technology, it is difficult to understand why it has not been further developed over this time. Based on the materials I reviewed, it appears that the IAS Turbine has not had any long-term operation and that its actual performance in any system using IAS Solar Dish Technology (or in any other system) has never been documented.

149. It is my opinion that the turbine design is at Stage 1: Research Phase of the Engineering design process of Table 3.

4.8. The Balance-of-Plant Components

150. There are other parts of a solar dish technology that are required to operate a system. I've called these balance-of-plant components and discuss some of the more important ones briefly.

[56] Pl. Ex. 17 at US001878.
[57] Pl. Ex. 17 at US001887.

151. There are no engineering analyses, no engineering drawings, and no short-term or long-term test results or performance data in the information I reviewed for any of the balance-of-plant components discussed below.

152. Each of the components and operations within the plant require controls. In fact, the only controller that I saw during my site visits was a tracking controller at the R&D Site that purportedly was providing azimuth and elevation control on a dish. I have no way of knowing whether or not this controller can operate as intended because the dish was not tracking the sun. Also, there is no information or test data in any of the materials I reviewed for this controller.

153. Temperature, pressure and flowrate sensors are required to track conditions throughout any system that might use IAS Solar Dish Technology. These measurements are used to control the flowrate of the collector working fluid, monitor the operation of the boiler and condenser heat exchangers, the receivers, and, most importantly, the turbine. In some cases, individual components, like the concentrators and turbine, will have dedicated control systems that will interact and report data to a system controller. The system controller is a computer with multiple displays monitoring and showing the conditions throughout the plant and providing alarms when component or system operation falls outside of normal operating parameters.

154. Also, I was surprised that there were no solar pyranometers at the R&D Site. Total and direct-normal pyranometers are used to measure the total and direct-normal components of the incident sunlight. This measurement is required for testing and during operation to determine when and how the plant is operated. I have never been at a solar test facility that did not have at least one, if not several, total and direct-normal pyranometers.

155. A solar plant will also have an operations manual that describes the different modes of operation of the plant including but not limited to start up, shut down, low solar radiation operation, normal operation and emergency shutdown. Each of these modes of operation include a series of steps that to be followed in order to protect the equipment.

156. In the materials I reviewed and during my two visits, I saw no information on instrumentation and controls, including hardware, software, or even a document describing the control/operational methodology for a system that might use IAS Solar Dish Technology.

157. Any solar energy generation plant requires a generator. The generator is directly coupled to the turbine and generates the electricity that is put on the grid. The system design of Figure 2 is a unit of 25 dishes and a 1 MW turbine design. Therefore, the generator must be matched with the turbine and provide 1 MW capacity. In the materials I reviewed, I did

not see information describing specifications for any generator, let alone a 1 MW (1,000 kW) one.

158. In fact during my two site visits, I saw only two small 7.5 kW motor/generators. One, at the Manufacturing Facility and a second one at R&D Site. A 7.5 kW generator does not match the other components proposed for the IAS Solar Dish Technology. As noted in the previous paragraph, the proposed turbine is supposed to accommodate the output of 25 dishes at a scale of 1 MW. A 7.5 kW generator would be much too small for a single dish even if IAS proposed using a small turbine, which they are not.

159. There is no information in the materials I reviewed about either on-site generator, or any other generator that has been used or proposed to be used with the IAS Solar Dish Technology.

160. Heat exchangers are used to transfer heat from a hot fluid to a colder one, typically without allowing them to mix. This requires large surface areas with minimal resistance to heat transfer and sufficient structural integrity to maintain the separation of the two fluid streams. The two fluids often have significantly different temperatures and densities, for example hot oil and superheated steam. Heat exchangers are well developed technology used in power plants and other industrial applications. In any system that would use IAS Solar Dish Technology, heat exchangers are required for the boiler and condenser of the Rankine cycle.

161. Pl. Ex. 16 contains a brief description of a tubeless heat exchanger that Mr. Johnson says he has designed.[58] During my visit to the Manufacturing Facility on January 24, 2017, I asked Mr. Johnson to describe the how his new, tubeless heat exchanger design worked. Mr. Johnson could not or would not explain it to me. Apart from the brief description in Pl. Ex. 16, there is no information in any of the materials I reviewed on this or any other heat exchangers.

162. Based on Figure 2, I calculate that (if they worked as proposed) each unit of a system comprising 25 dishes, 100 receivers, and a Rankine cycle power block using IAS' bladeless turbine would produce 1 MW of electrical power. Mr. Shepard also claims that there are currently the 200 structures started at the Construction Site.[59] I do not believe that the proposed IAS Solar Dish Technology can or will perform as claimed. However, if these assertions were the case, then the Defendants must believe that "plant" at the Construction site will produce 8 MW.

[58] Pl. Ex. 16 at US-001844.
[59] Deposition of R. Gregory Shepard, May 22, 2017, 156:25-157:19.

163. If any solar plant is transferring 8 MW of power to the grid, it must be connected through a substation. If a nearby substation with sufficient excess capacity is not available, the solar plant would have to build their own substation as part of the project.

164. When asked about the grid connection during both of my visits, Mr. Johnson pointed to a power pole and said that was where they were going to connect to the grid.[60] But a transmission line is insufficient for a solar power plant producing 8 MW of power for the grid.

165. I saw no substation on my visits to the R&D Site, the Construction Site, or the Manufacturing Facility. I have seen no information in materials I reviewed indicating that this issue has been given serious consideration.

166. If they have been considered at all, it is my opinion that the balance-of-plant components described in this section are at best at Stage 1: Research Phase of the Engineering design process of Table 3.

4.9. Comparison of IAS Solar Dish Technology Projected Performance

167. As I have shown, the IAS Solar Dish Technology is not actually a "system." The various component parts of the Technology are not designed to work together, and do not work together. Nonetheless, in Pl. Ex. 17, Mr. Johnson presents a "waterfall chart"[61] showing his numbers for the relative performance of the components of the IAS Solar Dish Technology. A waterfall chart shows the efficiency of system as the energy flows sequentially through the components from the collector through the generator resulting in a prediction of the overall system performance in the form of solar-to-electric conversion. I've reproduced Mr. Johnson's numbers in Table 5 along with the results of my calculations shown in Appendix IV. Note: the IAS column of Table 5 is from Pl. Ex. 17 and is identical to the same table as reported in the more recent version of the document.[62]

168. Two of the elements in Table 5 are for "transient effects due to cloud cover" and "power plant availability". Numbers for these two elements are only available once the plant is in operation, which the IAS Solar Dish Technology has not done. So it is not possible for me to even estimate what these parameters should be. However, I do note that the power plant availability of 96% would represent an excellent, mature coal-fired power plant and I do not believe this is appropriate for any solar technology. Because I do not have actual performance data, I have used Mr. Johnson's numbers for these two variables.

[60] Pl. Ex. 509, Video 18_4_09-4_25.
[61] Pl. Ex. 17 US-001887.
[62] Pl. Ex. 559 at Ra3 023592.

169. Another parameter listed in Table 5 is the "Electrical Loss Efficiency" of 0.86.[63] Pl. Ex. 17 identifies "Electrical Loss Efficiency" as a "parasitic load more compatible to the solar tower and dish due to piping configuration."[64] This is not a term that is known to me and I am not sure what he is trying to represent. There is no discussion or explanation in either Pl. Ex. 17 or Pl. Ex. 559, nor does there appear to be any technical, engineering basis for this value. Consequently, I will also use Mr. Johnson's value for this parameter.

170. IAS values shown in Table 5 assume that all component parts work together to receive solar radiation and convert it to electricity (which they do not do).

Table 5 Estimated Waterfall Efficiency of a System Using IAS Solar Dish Technology

System Parameter	IAS	My Analysis	Comments
Solar Collector Efficiency	0.838	0.425	There are issues with the size of the image from the concentrator likely due to inaccurate lens manufacture and/or the structure being too flexible.
Transient Effects	0.920	0.920	There is no data to support this, and I cannot estimate this, so I used Mr. Johnson's value for this parameter.
Receiver Thermal Efficiency	0.900	0.618	Mr. Johnson's estimate and my calculation.
Piping Losses	0.961	0.850	Due to the larger numbers of connections, piping losses for this system will be greater than a parabolic trough system. Engr. Est.
Electrical Loss Efficiency	0.860	0.86	There is no data to support this, and I cannot estimate this so I used Mr. Johnson's value for this parameter.
Rankine Cycle Efficiency	0.435	0.290	Mr. Johnson uses a turbine efficiency, that doesn't apply to the design, and he also uses the turbine efficiency in place of the Rankine cycle efficiency. I've used the correct parameter -- Rankine cycle efficiency based on the proposed working temperature - 400 C
Power Plant Availability	0.960	0.960	This is representative of a mature, well developed coal-fired power plant.
Generator Efficiency	0.960	0.960	Reasonable assumption
Solar-To-Electric Conversion Efficiency	0.239	0.047	

171. The comparison listed in Table 5 highlights three of the major technical issues identified in previous sections of the report; i.e.,

[63] Pl. Ex. 17 at US001887, Pl. Ex. 559 at Ra3 023592.
[64] Pl. Ex. 17 at US001889.

a) the large solar images cast by the circular Fresnel lenses, resulting from inaccurate manufacture of the lens tooling, poor alignment of the lenses within the lens assembly, and/or inaccurate determination of the focal plane;

b) the poor thermal efficiency of the receiver because of the design which locates the black surface on the inside of the glass tubes; and

c) IAS does not understand the basic engineering principles of power production of the Rankine cycle and the actual performance of their bladeless turbine.

172. Based on my analysis, the system would convert just 6.6 kW of the 141 kW of solar energy incident on the four circular Fresnel lens concentrators into electricity, resulting in the listed solar-to-electric efficiency of 4.7 %.

173. All of the components of the IAS Solar Dish Technology are at Stage 1 of the engineering technology development process. The components have been "designed" as stand-alone devices without consideration of how they would be incorporated into a system. Consequently, there is no actual "system" at this time.

174. There is no consideration of systems engineering in what are purported to be the "designs" of the various components presented in Pl. Exs. 16, 17, or 559. In my opinion, any system that proposes to use IAS Solar Dish Technology is (at best) at Stage 1: Research Stage of the Engineering design process of Table 3.

175. Mr. Johnson testified that he has produced electricity using the IAS Solar Dish Technology. Because of the inherent flaws in this technology and because I saw no corroborating records or data of the purported production of electricity, his testimony does not alter my conclusion about the status of the Technology.

Conclusion 1: Status of the IAS Solar Dish Technology

The IAS Solar Dish Technology is in the research Stage 1 of development. The "Technology" comprises separate component parts that do not work together in an operational solar energy system. The IAS Solar Dish Technology does not produce electricity or other useable energy from the sun.

5. COMMERCIALIZATION POTENTIAL OF THE IAS SOLAR DISH TECHNOLOGY

176. All of the materials I have reviewed indicate that the IAS Solar Dish Technology is at Stage 1 of the Engineering Process. It is my opinion that it will never be commercially viable technology.

177. The three primary reasons that the technology will not be commercialized are

a) The lack of an operational system that uses IAS Solar Dish Technology and significant progress toward developing a system after more than a decade of purported development.

b) IAS does not have the capability or the resources to develop a solar dish power system or a commercial, utility-scale solar project,

c) The concept of a central engine solar dish project based on Fresnel lens technology and a self-developed turbine has fundamental flaws that make it economically, if not technically, infeasible. I will discuss these issues in the context of the technical and development issues.

178. Based on the representation of the status of the technology I saw in my review of the materials in Appendix II and during my visits to the R&D Site, I expected to see multiple dishes operating, producing power, and supplying power to the utility grid.[65] I expected to see several dishes with receivers collecting solar energy and transporting it in the form of hot molten salt through pipes to a heat exchanger. In the heat exchanger, the hot salt would boil water to steam to power the turbine generator in a standard Rankine cycle. What I saw at the site was entirely different.

179. Overall, the R&D Site was dirty and disorganized, comprising 17 dishes and three equipment trailers. None of the dishes was fully functional during either of my visits.[66] Lens facets were broken and missing[67] with plastic strewn on the ground and old receivers were broken and lying on the ground as well. One of the trailers housed what we were told was a heat exchanger[68] and the other two trailers contained equipment in varying stages of assembly. Electrical wires were lying on the floors of the trailers in pools of water. Overall the site had the appearance of not having been recently used for any test activity and certainly not to generate electricity.

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[65] For example, the IAUS Research and Development Timeline in Pl. Ex. 437 claims that the solar towers were "Commercial-Ready" as of 2014 – 2015.

[66] For example, Pl. Ex. 509, Video 12_4_00-4_23, shows the towers on the R&D Site. If these dishes were tracking the sun, they would be in alignment. The different angles of each dish show that they are not tracking the sun. Further, on a number of the towers, there is no receiver installed to capture any concentrated solar radiation.

[67] Pl. Ex. 509, Video 12_4_00-4_23 and Video 12_4_38-5_15.

[68] Pl. Ex. 509, Video 16_1_38-1_59; Deposition of Neldon Johnson, June 28, 2017, 89:25-91:1.

180. I saw no turbines, receivers, or piping for heat transfer fluid at the R&D Site. I also saw no test equipment for measuring the optical performance of the solar dishes, the heat transfer in the receivers, or the power generation. It is not clear that either a turbine or molten salt have ever been tested at the site. The only "operation" I saw during either visit was the burning of a piece of wood using one of the solar concentrators that had only partial, broken lenses installed.[69]

181. I asked to see the grid connection and were taken to a junction box on the back side of the generator trailer and where the power comes onto the site.[70] Mr. Johnson said that he puts power onto the line at this connection. The R&D Site was in the same degraded condition during both of my visits.

182. To perform the testing of the IAS Solar Dish Technology components and any proposed system that would use it, I estimate that it would require a Test Team of at least 3 to 5 engineers and 7 to 10 technicians.

183. According to the materials I have reviewed, Mr. Johnson appears to be the only "designer" of the system and its components. But his claims about the IAS Solar Dish Technology and the documents that I've reviewed indicate to me that he lacks an understanding of fundamental physics, i.e., thermodynamics, heat transfer and fluid mechanics.

184. There were 5 or 6 workers present at the R&D Site during both of my visits. At least some of them appeared to be the same workers who were present at the Manufacturing Facility. I have no names or resumes for these workers, so I cannot evaluate their technical abilities or competence to test or operate solar energy technology.

185. The requisite test equipment, calorimeters, thermocouples, total and direct-normal solar pyranometers, flow meters, strain gages, and data acquisition equipment was not visible to me or in use at the Manufacturing Facility, the R&D Site or the Construction Site.

186. For all of these reasons, staffing and basic resources at all three locations is inadequate to support the work that Defendants claim they are doing.

187. Although, in my opinion, the IAS Solar Dish Technology is at Stage 1 of the Engineering Process, Mr. Johnson and others have started fabricating some concentrator structural parts, stockpiling them at the Manufacturing Facility, and erecting structure at the Construction Site.[71]

188. In my opinion, it is premature to build component parts when, as I showed above, there is no system that uses the IAS Solar Dish Technology to produce electricity.

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[69] Pl. Ex. 509, Video 16_12_24-12_41.
[70] Pl. Ex. 509, Video 16_8_32-8_57; Deposition of Neldon Johnson, June 28, 2017, 95:18-96:20.
[71] Deposition of Neldon Johnson, June 28, 2017, 52:20-24, 86:22-25; Deposition of LTB1, LLC, July 1, 2017, 32:8:17.

189. Based on the Defendants' representation of the status of the IAS Solar Dish Technology in the materials I reviewed, I expected to visit a manufacturing facility similar to other commercial solar manufacturing plants that I have previously toured. I anticipated seeing a professionally organized and operated plant that would be clean, organized, and in full operational mode. The facility would have separate production lines to manufacture collector components, solar receivers, turbines, heat exchangers, concentrators, and system controllers, with individual component quality control. There would be subassembly stations for the components including quality control and functional/operational tests to assure compliance within pre-specified operational parameters defined for each subassembly by a System Component Interface Document. Last, I would expect to see holding areas with numbers of subassemblies, collector facets and assemblies, receivers, turbine-generator assemblies, heat exchangers, control systems, etc. ready for shipping to the site for installation.

190. But the Manufacturing Facility was dirty and cluttered, much like a farm shop, and there was very little activity during either of my two visits. The only ongoing work on both of my visits was the fabrication of limited numbers of structural concentrator parts and lens facets.

191. During both of my visits to the Manufacturing Facility, there were insufficient numbers of workers, only between six and ten people, to support the fabrication of all of the equipment required for a system that would use IAS Solar Dish Technology. I estimate that a manufacturing facility to meet the scope of production described by the Defendants would require at least 50 to 100 workers of which at least 10 would be manufacturing engineers.

192. There also did not appear to be sufficient manufacturing equipment of the types or numbers needed to produce the components in the quantities required for the hundreds or thousands of components that the purported system requires.

193. While there were a number of bins with some of the solar concentrator parts and two stations for assembling optical facets, there were only two or three people assembling a couple of facets during my visits. There was no quality control activity or subassembly testing to qualify performance.

194. There were no assembly lines for the manufacture of receivers, turbines, heat exchangers, or concentrator and system controllers; i.e., there was no equipment, parts, manufacturing activity for any of these components. In fact, I saw only one disassembled turbine, one receiver, and one or two small generators (insufficient for even one concentrator) and all were at the same location in the shop during both of my tours.

195. I saw no quality control or test equipment for verifying/evaluating the performance of the parts and components, i.e., the optical facets, the thermal receivers, the turbines, etc.

196. The disheveled condition of the Manufacturing Facility and the R&D Site indicate a disorganized, low-cost operation that does not support the level of development and commitment as represented by the Defendants.

197. In my opinion, it is premature to start construction of a system using component parts when the component parts have not been validated and an assembled system has not been demonstrated in operation. But, I visited the Construction Site where assembly of some structural concentrator parts has started.

198. The Construction Site had a number of collector structural units lying on the ground along with a pile of pedestal piping. We were told that there were a total of 200 concentrator structures installed at the Construction Site. What I saw was the structural piping assembled to support the solar concentrators. Also, some solar lens support structures were stacked at one location on the site.[72] I did not see any towers with lens assemblies installed at the top at the Construction Site during either of my visits.

199. It should be noted that there is no heat transfer piping, no receivers, no turbines, no controls or other components installed or stockpiled at the Construction Site. The steel piping in storage at the site and installed as collector supports is rusted. Because rusting components will tend to flake and jam mechanical parts and quickly lose tolerance, a commercial operation would have either sand blasted and galvanized or painted the structural elements of the solar concentrators.

200. There was very little activity at the Construction Site during both of my visits. About 5 technicians were moving materials around and some of them were the same technicians present at the Manufacturing Facility and the IAS R&D Site. I estimate that a team of 2 engineers and 10 to 15 technicians would be required to install a 1 MW system comprised of a single unit using IAS Solar Dish Technology.

201. Last, there is no evidence that the IAS Solar Dish Development Project has a Project Development Team. The development of a utility-scale solar power project is a unique and specialized commercial activity that requires highly-knowledgeable personnel familiar with local, state, and federal energy requirements and regulations. I estimate that a Project Development Team would require at least 3 to 5 full-time people who would likely engage outside consultants to prepare the required legal, environmental, and regulatory compliance documentation. In the materials I have reviewed, I have not seen any indication that a Project Development Team or anyone with utility-scale project development experience is working on this project.

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[72] The stack of lenses, with dish assemblies visible behind it, appears in Pl. Ex. 509, Video 10_0_47-0_57. A wider view of the dish assemblies on the Construction site appears in Pl. Ex. 509, Video 11_0_06-0_38.

202. Mr. Johnson said that he is the Engineering Procurement Contractor (EPC) and will provide all of the Operation and Maintenance (O&M) at the Construction Site. Note: An Engineering Procurement and Construction contractor is responsible for all the activities from detailed plant design, procurement of equipment, construction, initial operation and commissioning of the plant prior to handover of the project to the owner. In the materials I have reviewed, I have not seen any indication that Mr. Johnson or anyone else affiliated with the IAS Solar Dish Technology has either the experience or the resources to support either of these activities.

203. In the materials I have reviewed, there is no indication that any person or entity has agreed to pay for any electricity or other energy produced by IAS Solar Dish Technology.

204. In my opinion, the staffing and equipment at the Manufacturing Facility, R&D Site, and the Construction Site are inadequate to support the commercialization of the technology.

205. Also, as I have previously discussed, worldwide there are no dish/engine systems in commercial operation today. In my opinion and the opinions of others in the solar community, the concept of a central engine solar dish project has fundamental flaws that make it much less likely to be commercialized than the more conventional dish/Stirling system with the engine and generator mounted on each dish.

206. The IAS Solar Dish Technology, which is based on Fresnel lens technology and a self-developed turbine, is not technically and very likely not economically viable.

207. My experience with Stage 1 solar system designs, such as this one, is that at the beginning of development all problems are small and solvable and it is only when the developer gets to Stages 3 and 4 prototype and demonstration that the real performance and cost issues become apparent.

208. Because of the fundamental flaws in the components of the IAS Solar Dish Technology, the lack of engineering capability, staffing, and resources supporting this project, and the fact that, after more than decade of work, the IAS Solar Dish Technology is still at Stage 1 of engineering development, it is my opinion that there will never be a commercially viable system that uses the Technology.

Conclusion 2: Commercialization Potential of the IAS Solar Dish Technology

The IAS Solar Dish Technology is not now nor will it ever be a commercial-grade dish solar system converting sunlight into electrical power or other useful energy.

TRMancini Solar Consulting

APPENDIX I RESUME OF DR. THOMAS R. MANCINI

Principal, TRMancini Solar Consulting, LLC

December 2016

Contact Information: 9924 Lorelei Lane NE
Albuquerque, NM 87111
Telephone: (505) 264-0614
email: Trmancini@aol.com

Professional Experience:

August 2011 to present

TRMancini Solar Consulting draws on more than 35 years of experience with solar thermal technology and policy development to provide consultation on Concentrating Solar Power (CSP, aka solar thermal electric technologies) technology development, energy policy, and project development in the U.S. and internationally.

January 1985 to July 2011

Sandia National Laboratories, Albuquerque, NM, Program Manager, Distinguished Member of the Technical Staff (DMTS), and Senior Member of the Technical Staff (SMTS)

March 2002 to July 2011: CSP Program Manager at Sandia National Laboratory (SNL) responsible for budget, technology development planning, staffing, and program execution. This involved working with the U. S. Department of Energy CSP Program and the National Renewable Energy Laboratory during a time of Program growth and expansion by industry into the renewable market place. During this time, the DOE budget increased from a close-out budget of $6m to more than $50M annually for the CSP Program.

March 2004 to February 2011: Chair of the International Energy Agency's (IEA) Solar Power and Chemical Energy Systems (SolarPACES) Working Group. SolarPACES is the international group dedicated to the development and deployment of CSP technology worldwide. During this time, the membership of the group grew from about 10 to 18 countries and it reached out to industry involving its first industrial member.

March 1999 to December 2001: Program Manager Biomass Power, SNL, responsible for budget, technology development planning, staffing, and program execution. Started the DOE Small Biopower Program and implemented technical rigor in the evaluation of biomass power systems.

January 1995 to July 1999: DMTS, SNL, Task leader for Dish-Engine Development and Project manager for a large cost-shared program with industry to develop a commercial dish/Stirling power generator. Activities involved working with DOE Program Managers in Washington, D. C., staff members at the National Renewable Energy Laboratory, staff members at

Sandia National Laboratories and industrial contractors.

Task Leader for solar market development activities in the International Energy Agency's Solar Power and Chemical Energy Systems (Solar PACES) program working with colleagues in Russia, Spain, Germany, and Israel.

Professional Experience (cont.):

January 1985 to December 1995: SMTS at SNL and Task Lead for Solar Concentrator Development; Manager of Innovative Concentrator Project, SKI Sheet-Metal Concentrator Project, Stretched-Membrane Dish Development Project, Sol-Gel Mirror Development Project, NASA SCAD Testing Feasibility Study, Faceted, and Stretched-Membrane Dish Development Project.

August 1975 to December 1985

Assistant, Associate and Full Professor of Mechanical Engineering, New Mexico State University, Las Cruces, New Mexico. Responsibilities included: teaching courses in thermodynamics, dynamics, heat transfer, fluid mechanics, honors technology and society, and solar energy; and conducting research in solar heating and cooling, and solar power systems. Advised and graduated 10 graduate students.

1984 to 1985: Full Professor of Mechanical Engineer, NMSU, Las Cruces, New Mexico.

1979 to 1984: Associate Professor of Mechanical Engineering, NMSU, Las Cruces, New Mexico.

1982 to 1984: Adjunct Associate Professor of Petroleum Engineering, New Mexico Institute of Mining and Technology, Socorro, New Mexico.

1975 to 1979: Assistant Professor of Mechanical Engineering, New Mexico State University, Las Cruces, New Mexico.

September 1969 to August 1975

1975: Research Associate in the Mechanical Engineering Department of Colorado State University, Fort Collins, Colorado. Responsible for the development of a numerical model of a solar, absorption air-conditioning system.

1974: Assistant Civil Engineer in the Civil Engineering Department of Colorado State University. Responsible for the collection and reduction of wind tunnel data for determining wind loads on buildings and other structures.

1973: Instructor in the Mechanical Engineering Department of Colorado State University. Taught Junior and Senior level Heat Transfer courses. 1969 to 1973: Graduate Research Assistant in the Mechanical Engineering Department of Colorado State University. Responsible for experimental research in double-diffusive natural convection.

Education: Doctor of Philosophy Degree in Mechanical Engineering from Colorado State University, June 1975

Master of Science Degree in Mechanical Engineering from Colorado State University, August 1970

Bachelor of Science Degree in Mechanical Engineering from Colorado State University, June 1969

TRMancini Solar Consulting

Professional Activities/	2004 to 2011: Chair of the IEA Solar Power and Chemical Energy Systems (SolarPACES) Working Group
Awards:	2002 ASME Solar Division Yellott Award
	Chair ASME/COE Energy Committee 2000 – 2003
	ASME Energy Committee, 1997 – 2004
	1997 ASME Dedicated Service Award
	Associate Editor for Solar Thermal Power of the ASME Journal of Solar Energy Engineering, 1995 - 2001
	1994 Elected Fellow of the American Society of Mechanical Engineers
	1991 Member of the ASME Energy Resources Board
	1991 – 1992 ASME Solar Energy Division Chair
	1986 – 1988 ASME SED, Chair of the Solar Thermal Committee
	Organized more than 10 technical conferences for ASME, IEA, and other organizations.
Technical Publications	More than 70 publications in the technical literature in such broad topic areas as passive solar cooling, active heating and cooling, and solar power generation.

The following is a list of Dr. Mancini's publications in the technical area of solar energy. The "*bold italic*" references are those related to concentrating solar technology.

Handbook of Clean Energy Systems, Volume I: Renewable Energy: Chapter XX: Introduction to Concentrating Solar Power Systems, T. R. Mancini, Handbook Editor: Jinyue Yan, Volume 1 Editors: Prof. Hong-xing Yang and Prof. Robert F. Boehm, Wiley, June 2015, ISBN: 978-1-118-38858-7.

Mancini, T. R., and P. Heller, et. al. "Dish-Stirling Systems: An Overview of Development and Status," JSEE 2002, Vol 125, No. 2, May 2003.

Stone, K. W., Mancini, T. R. et. al., "Performance of the SES/Boeing Dish Stirling System," ASME Solar Energy Conference, Washington D. C., April 2001.

Stone, K. W., Mancini, T. R. et. al., "SES/Boeing Dish Stirling System Operation," ASME Solar Energy Conference, Washington D. C., April 2001.

Mancini, T. R., "Solar Dish/Stirling Systems," invited, "keynote" lecture, European Stirling Conference, Osnabruck, Germany, February 1998.

Advances in Solar Energy, Chapter on Solar Thermal Power, publication of the American Solar Energy Society, Mancini, T. R., Kolb G. J., and Prairie, M. R., April 1997.

Mancini, T. R., "Solar Dish/Engine Systems," invited "keynote" lecture, 8th Symposium on Solar Electricity, Sede Boqer, Israel, November 1997.

Mancini, T. R., "Advances in Solar Concentrators,'" presented at the SOLTECH Conference, Palm Springs, California, March 1996.

Mancini, T. R., "An Overview of Parabolic Dish Concentrator Development,"

Proceedings of the Fifth Task III Meeting, Solar PACES, Paul Scherrer Institute, Villigen, Switzerland, March 1995.

Proceedings of the 30th Intersociety Energy Conversion Engineering Conference, Orlando, FL, Editors D. Y. Goswami, L. D. Kannberg, T. R. Mancini, S. Somasundaram, ASME Publications, 1995.

Mancini, T. R., and Gallup D. R., "Comparative Analysis of Solar Thermal Power Generation: A User's Perspective," invited keynote presentation at the Comparative Analysis of Solar Power, Jerusalem, Israel, February, 1994.

Gallup, D. R., and T. R. Mancini, "The Utility-Scale Joint-Venture Program," Proceedings of the 29th IECEC Conference, Monterey, CA, August 1994.

Mancini, T. R., "The DOE Solar Thermal Electric Program," invited overview paper, Proceedings of the 29th IECEC Conference, Monterey, CA, August, 1994.

Mancini, T. R., J. M. Chavez, and G. J. Kolb, "The Promise and Progress of Solar Thermal Power," Mechanical Engineering Magazine, vol. 116, no. 8, August, 1994.

Mancini, T. R., "An Overview of Concentrators and Receivers for Solar Thermal Systems," invited keynote presentation at the 7th International Symposium on Solar Thermal Concentrating Technologies," Moscow, Russia, September 26-30, 1994.

Dudley, V. J., G. J. Kolb, A. R. Mahoney, T. R. Mancini, C. W. Matthews, M. Sloan, and D. Kearney, "SEGS LS-2 Solar Collector," SAND94-1884, Sandia National Laboratories Report, Albuquerque, NM, December 1994.

"Analysis and Design of Two Stretched-Membrane Parabolic Dish Concentrators," by T. R. Mancini Proceedings of the 1991 ASME-JSES-JSME International Solar Energy Conference, Reno, NV, March 17-22, 1991.

Alpert, D. J., Mancini, T. R., Houser, R. M., Grossman, J. W., Schissel, P. O., Carasso, M., Jorgensen, G., and Scheve, M., Solar Concentrator Development in the United States, Solar Energy Materials, pp. 307-319, Elsevier Science Publishers B. V., 1991.

Grossman, J.W., Mancini, T. R, Houser R. M., and Erdman, W. W., "Task 3 Report: On-Sun Test and Evaluation of the NASA STAR Facets," Report for the National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio, June 1991.

Solar Engineering 1991, Editors T. R. Mancini, K. Watanabe, and D. E. Klett, Proceedings of the Second ASME-JSES-JSME International Solar Energy Conference, Reno, Nevada, March 17-22, 1991.

"Analysis and Design of Two Stretched-Membrane Parabolic Dish Concentrators," by T. R. Mancini, ASME Journal of Solar Energy Engineering, August 1991.

Alpert, D. J., Mancini, T. R., Houser, R. M., Grossman, J. W., Schissel, P. O., Carasso, M., Jorgensen, G., and Scheve, M., Solar Concentrator Development in the United States, presented at the 5th Symposium on Solar High-Temperature Technologies, Davos, Switzerland, August 1990.

Solar Energy in the 1990s, Editors T. R. Mancini and W. M. Worek, SED-Vol. 10, The American Society of Mechanical Engineers, November, 1990.

Holmes, J. T., Alpert, D. J., Mancini, T. R., Murphy, L. M., Schissel, P. O., Development of Concentrating Collectors for Solar Thermal Systems, Proceedings of the 24th Intersociety Energy Conversion Engineering Conference, vol. 6, pp. 1971-1978, Washington D. C., August 1989.

Mancini, T. R., Cameron, C. P., and Goldberg, V. R., NASA SCAD Concentrator Terrestrial Testing Feasibility Study, Report for the National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio, September 1988.

Ratzel, A. C., Boughton, B. D., Mancini, T. R., and Diver, R. B., "CIRCE: A Computer Code for the Analysis of Point-Focus Concentrators," presented at the ASME-JSES Solar Energy Conference, Honolulu, Hawaii, March 1987.

Leonard, J. A., Diver, R. B., and Mancini, T. R., Proceedings of the Concentrating Solar Collector Workshop, SAND87-0131, Sandia National Laboratories, Albuquerque, New Mexico, June 1987.

Mancini, T. R., "The DOE Innovative Concentrator Project," Solar Engineering 1986, publication of the ASME Solar Energy Division, 1986.

Mancini, T. R., "Innovative Point-Focus Concentrator Projects," presented at the American Solar Energy Society Conference, Boulder, Colorado, June 1986.

Mancini, T. R., Performance Evaluation of the New Mexico State University Passive Solar House, Final Report submitted to the U. S. Department of Energy, San Francisco Operations Office, June 1983.

Mancini, T. R., "The Performance of a Roof-Pond Solar House: The New Mexico State University Experience," 8th Annual Passive Solar Conference, Glorieta, New Mexico, September 1983.

Mancini, T. R., "The New Mexico State University Passive Cooling Test Facility," Passive and Hybrid Cooling Workshop Manual, Solar Rising Conference, Philadelphia, Pennsylvania, May 1981.

Mancini, T. R., Suter, K. J., and Price, D. M., "The New Mexico State University Passive Skytherm Solar House: Summer Cooling Data 1981," presented at the ASME Solar Energy Division meeting, Albuquerque, New Mexico, April 1981.

Mancini, T. R., Mulholland, G. P., and Wilson, D. B., The Utilization of Solar Energy in the Potash Industry at Carlsbad, New Mexico, Final Report submitted to the New Mexico Energy and Minerals Department, March 1980.

Abernathy, G. H., and Mancini, T. R., Solar Powered Agricultural Irrigation Pump, New Mexico Energy Institute, Report No. 21, Las Cruces, New Mexico, February 1979.

Mancini, T. R., Smith, P. R., and Petersen, J. L., Preliminary Performance Evaluation of the New Mexico State University Solar House, New Mexico Energy Institute, Report No. 17, Las Cruces, New Mexico, May 1979.

Mancini, T. R., Fox, J. B., and Mulholland, G. P., Solar Radiation Simulation, Final Project Report submitted to the White Sands Missile Range, White Sands, New Mexico, May 1979.

Mancini, T. R., An Economical Solar Heated and Cooled House for Southern New Mexico, Final Project Report submitted to the New Mexico Energy Institute, Las Cruces,

New Mexico, July 1979.

Mancini, T. R., Evaluation of a Roof-Pond Solar House, Final Project Report submitted to the Department of Energy, July 1979.

Fate, R. E., and Mancini, T. R., "The Performance of a Roof-Pond Solar House," Proceedings of the Fourth Annual Passive Solar Conference, Kansas City, Missouri, October 1979.

Mancini, T. R., Performance Evaluation of the New Mexico State University Solar House, Final Report submitted to the New Mexico Energy Institute, Las Cruces, New Mexico, December 1979.

Miller, W. C., and Mancini, T. R., "The Effects of Selected Parameters on the Heating and Cooling Performance of a Passive Solar House," Proceedings of the Second Annual Passive Solar Conference, Philadelphia, Pennsylvania, March 1978.

Mancini, T. R. and Matzkanin, R. L., "The New Mexico State University Solar House," Proceedings of the Solar Heating and Cooling Operational Results Conference, Colorado Springs, Colorado, December 1978.

Matzkanin, R. L., and Mancini, T. R., "Performance Evaluation of the New Mexico State University Solar House," ASME paper No. 78HA/SOL-8, ASME Winter Annual Meeting, San Francisco, California, December 1978.

Miller, W. C., and Mancini, T. R., "Numerical Simulation of a Solar Heated and Cooled House Using Roof Ponds and Movable Insulation," Proceedings of the Solar World Conference, AS/ISES, Orlando, Fla., June 1977.

Moore, R., Smith, P. R., and Mancini, T. R., et. al., "A Unique Solar Residence Using Conventional Construction Techniques," Proceedings of the Solar World Conference, AS/ISES, Orlando, Fla., June 1977.

Abernathy, G. H., and Mancini, T. R., "Design and Installation of a Solar-Powered Irrigation Pump," Paper No. 77-4020, presented at the American Society of Agricultural Engineers, Raleigh, North Carolina, 1977.

Abernathy, G. H., and Mancini, T. R., "Can Sunshine Power the Pump?," Agricultural Engineering Magazine, Vol. 58, No. 10, October 1977.

Mancini, T. R, Peterson, J. L., and Smith, P. R., "Preliminary Performance Evaluation of the New Mexico State University Solar House," ASME Heat Transfer in Solar Energy Systems, December 1977.

Wilbur, P. J. and Mancini, T. R., "Energy Storage in a Solar Absorption Air Conditioning System," Solar Energy, Vol. 18, pp. 569 to 576, 1976.

APPENDIX II LIST OF FACTS AND DATA CONSIDERED

Documents produced in *United States v. RaPower-3, et al.*, 15-828 (D. Utah)

Bates Begin	Bates End
Freeborn_Roger-00001	Freeborn_Roger-00624
Gregg_P&R-000564	Gregg_P&R-000583
Gregg_P&R-000939	Gregg_P&R-000943
Gregg_P&R-000946	Gregg_P&R-000951
Gregg_P&R-001042	Gregg_P&R-001046
Gregg_P&R-001242	Gregg_P&R-001243
Gregg_P&R-001320	Gregg_P&R-001321
Gregg_P&R-001452	Gregg_P&R-001454
Gregg_P&R-001757	Gregg_P&R-001758
Gregg_P&R-001859	Gregg_P&R-001860
Gregg_P&R-001938	Gregg_P&R-001939
Gregg_P&R-001987	Gregg_P&R-001992
LUCITE0001	LUCITE0981
PAC00001	PAC02425
PSK000001	PSK000072
Ra3 000001	Ra3 018637.623
Ra3 023288	Ra3 023594
Shepard_Greg-00001	Shepard_Greg-04016
US000001	US004270

Other Sources of Information and Materials in *United States v. RaPower-3, et al.*, 15-828 (D. Utah)

- April 4, 2017 Site Visit to the Manufacturing Facility, the Construction Site, and the R&D Site in Millard County, Utah, with United States Department of Justice attorneys Erin Healy Gallagher, Erin Hines, Christopher Moran and associated video (3 disks)
- United States' Complaint
- United States Written Discovery Requests and Defendants' responses
- Deposition Transcripts[73] of:
  - Robert Aulds
  - Kenneth Birrell

[73] Unless otherwise noted, refers to depositions taken in this case.

  - Cody Buck
  - Peter Gregg
  - Roger Halversen
  - John Howell
  - Frank Lunn
  - David Mantyla
  - Preston Olsen
  - Ken Olson
  - Samuel Otto
  - Kenneth Oveson
  - PacifiCorp
  - Mike Penn
  - Robert Rowbotham
  - Matthew Shepard
  - Lynette Williams
  - Brian Zeleznik
  - Greg Shepard
  - Roger Freeborn
  - Neldon Johnson (which Dr. Mancini also attended in person)
  - International Automated Systems, Inc.
  - RaPower-3, LLC
  - LTB1, LLC
  - Neldon Johnson (deposition taken by the Securities Exchange Commission on May 10, 2001 in *SEC v. International Automated Systems, Neldon Johnson, et al.* Case No. 2:98-cv-562s (D. Utah))
- Plaintiff's Exhibits 1 through 558
- Dr. Mancini reviewed the rapower3.com and iaus.com websites as they have appeared at different times since September 2015.
- Videos and PDF's from Defendants' websites
  - Animated Hydrolic Pivot.avi
  - Benefit Final Thoughts.avi
  - ChefPlex News Story.avi
  - Dual Axis Tracking.avi
  - History in Pictures.mp3
  - History in Pictures.wmv
  - Hydrolic Pivot in Use.avi
  - IAUS Dynamic Voltage Controller.wmv
  - IAUS Solar Dual Axis Tracking.wmv
  - IAUS Solar Receiver.wmv
  - Jet Propulsion Turbine.wmv
  - Learning Center – Rental Agreement.wmv
  - Pictures from the 2014 MEGA Tour.mp3
  - Pictures from the 2014 MEGA Tour.wmv
  - Program Summary.avi
  - RAPower3 – 2014 Mega Tour video of Turbine.wmv
  - RaPower3 – Concentrated Photovoltaic.wmv
  - RaPower3 – Concentrated PV Field Test.wmv
  - Rapower3 – Manufacturing Update.wmv
  - Rapower3com.avi
  - Solar Lens Test.avi

- Solar News.wmv
- Solar Tech01.avi
- Solar Tech02.avi
- Solar Tech03.avi
- Solar Tech04.avi
- Solar Thermal Heat
-

Lenses.wmv

- Solar Tracking.avi
- Turbine Prototype.avi
- XSun Energy.avi
- 2011 Convention Freebor's Facebook (folder)
  - 15 Minute RaPower3 Video.avi
  - RaPower3 Convention Clip #1.avi
  - RaPower3 Convention Clip #10.avi
  - RaPower3 Convention Clip #2.avi
  - RaPower3 Convention Clip #4.avi
  - RaPower3 Convention Clip #5.avi
  - RaPower3 Convention Clip #6.avi
  - RaPower3 Convention Clip #7.avi
  - RaPower3 Convention Clip #8.avi
  - RaPower3 Convention Clip #9.avi
  - RaPower3 Intro Movie.avi
  - RaPower3 System Heat Demo.avi
  - Webinar.avi
  - Untitled.avi
- IAS Website (folder)
  - AdvancedSolarCollector.aspx.pdf
  - AirportSecurity.aspx.pdf
  - AutomatedSupermarket.aspx.pdf
  - BladelessTurbine.aspx.pdf
  - Company.aspx.pdf
  - Contact.aspx.pdf
  - Fingerprint.aspx.pdf
  - Home Page.pdf
  - JoinEmailList.aspx.pdf
  - LouveringPanels.aspx.pdf
  - OrderXcel.aspx.pdf
  - news2011.aspx
  - news02092006.aspx.pdf
  - news02132007.aspx.pdf
  - news02232009.aspx.pdf
  - news03182009.aspx.pdf
  - news04092007.aspx.pdf
  - news06152010.aspx.pdf
  - news07112006.aspx.pdf
  - news07172009.aspx.pdf
  - news08232007.aspx.pdf
  - news11122007.aspx.pdf
- Solco Energy Website (folder)

- Business Opportunity - Video.avi
- Solco Energy - YouTube Video.avi

- www.rapower3.com (folder)
  - Benefit Final Thoughts - Video.avi
  - about_us.shtml.pdf
  - benefit_commissions.shtml.pdf
  - benefit_final_thoughts.shtml.pdf
  - benefit_options.shtml.pdf
  - benefit_residual.shtml.pdf
  - benefit_retirement.shtml.pdf
  - benefit_success_stories.shtml.pdf
  - Compensation_04082011.pdf
  - convention.shtml.pdf
  - current_news.shtml.pdf
  - EquipmentPurchase_04082011.pdf
  - Home Page.pdf
  - OperationMaint_11192010.pdf
  - PoliciesReport.pdf
  - 101 purchase_join.shtml.pdf
  - solar_sites.shtml.pdf
  - tax_cpa_info.shtml.pdf
  - tax_credits.shtml.pdf
  - tax_finer_points.shtml.pdf
  - tax_forms.shtml.pdf
  - tax_history.shtml.pdf
  - tax_opinionletter.shtml.pdf
  - tax_quarterly.shtml.pdf
  - tax_state_credits.shtml.pdf
  - tech_closed_loop.shtml.pdf
  - tech_going247.shtml.pdf
  - tech_heatexchangers.shtml.pdf
  - tech_lens.shtml.pdf
  - tech_turbine.shtml.pdf
- www.sunpowerassociates.com (folder)
  - SunPowerAssociates Video.avi
  - www.sunpowerassociates.com.pdf
- www.tvital.com (folder)
  - test.avi
  - www.tvital.com.pdf
- www.xsunenergy.com (folder)
  - XSun Energy Video.avi
  - www.xsunenergy.com.pdf
- www.xsuntaxprogram.com (folder)
  - Program Summary - Video.avi
  - Solar Technology - Video 2.avi
  - Solar Technology - Video 3.avi
  - Solar Technology - Video 4.avi
  - Solar Technology - Video.avi
  - About XSun.pdf
  - Home Page.pdf

- Program Summary.pdf
- Solar Technology.pdf
- Tax Calculator.pdf

Information and Documents Provided by IRS, Office of Chief Counsel in related Tax Court case, *Olsen v. Commissioner*, United States Tax Court, Docket No. 26469-14

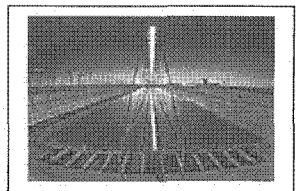
- Ninety-two pictures (taken on or about September 1, 2011) of the R&D Site, surrounding area and some other related properties
- Deseret News article (Dec. 21, 2013) discussing the IAUS and RaPower3 project in Millard County, Utah
- Two pages printed (Apr. 4, 2014) from the IAUS website, www.IAUS.com, two pages with four pictures of the IAS Solar Dish
- Two pages printed (Apr. 4, 2014) from the Wikipedia entry for IAUS
- Form 10-QSB, Quarterly Report, filed with the United States Securities and Exchange Commission by IAUS for quarter ended September 30, 2007
- Form 10-QSB, Quarterly Report, filed with the United States Securities and Exchange Commission by IAUS for fiscal year ended June 30, 2008
- Form 10-QSB, Quarterly Report, filed with the United States Securities and Exchange Commission by IAUS for fiscal year ended June 30, 2009
- Form 10-QSB, Quarterly Report, filed with the United States Securities and Exchange Commission by IAUS for fiscal year ended June 30, 2010
- Form 10-QSB, Quarterly Report, filed with the United States Securities and Exchange Commission by IAUS for quarter ended December 31, 2010
- Form 10-QSB, Quarterly Report, filed with the United States Securities and Exchange Commission by IAUS for quarter ended March 31, 2011
- IAS Articles of Incorporation, dated September 26, 1986
- Three pages printed from IUAS website, www.iaus.com, series of news articles reproduced on the IAS website: http://www.iausenergy.com/NewsHistory/20060118_SolarTaxCredit.html
- RaPower3 Articles of Organization, dated November 17, 2009
- Page prints made on April 16, 2013 from RaPower3 website, www.RaPower3.com, approximately 50 pages of the RaPower3 website with apparent downloads of other documents from the site
- RaPower3 Compensation Contract and Policies and Procedures dated September 2009.
- Sample RaPower3 Equipment Purchase Agreement with invoice, placed in service letter and Referral Fee Contract
- Sample RaPower3 Operation and Maintenance Agreement
- Tax Court Rule 143(g) discussing expert witness reports
- January 24, 2017 Site Visit to the Manufacturing Facility, the Construction Site, and the R&D Site in Millard County, Utah, with IRS Chief Counsel attorneys Skyler Bradbury and David Sorenson

APPENDIX III: GLOSSARY OF TERMS

The following definitions are generally accepted by the CSP and electrical power communities[74] and will be used throughout this report.

Capacity: The ability to produce electrical power to meet system load requirements, typically represented at the nominal or rated load conditions in megawatts (MW).

CLFR: Compact Linear Fresnel Reflector solar concentrator. This is a variant of a parabolic trough in which linear reflector facets track and focus sunlight in one dimension while the receiver moves to intercept the reflected beam.



Areva's CLF Reflector

Collector: the solar concentrator and thermal receiver.

Concentrating Solar Power (CSP): also referred to as Solar Thermal Electric Power; it uses the heat absorbed from the sun to drive a conventional power cycle and produce electricity for delivery to the electric power grid.

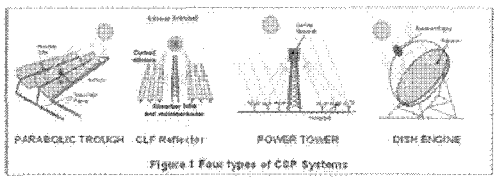


Figure 1 Four types of CSP Systems

Concentration ratio: the simple concentration ratio is represented by the projected area of the concentrator divided by the projected area of the receiver.

Concentrator: a curved, reflective mirror or a Fresnel lens that concentrates the solar energy along a line (trough) or at a point or on a small area (dish, and power tower).

Conversion System or Power Block: The equipment comprising that part of a CSP system that uses the concentrated solar heat to produce electricity. In the case of parabolic trough and power tower systems, it is Rankine cycle (defined below) equipment and for a dish/Stirling system it is the Stirling engine and generator (defined below).

Dish: a solar concentrator, typically in the shape of a paraboloid of revolution, that focus the incident solar radiation at its respective focal point. For this discussion, the term dish is also used for a Fresnel™ refractive, point focus concentrator. A dish tracks the sun in two axes to maintain the focal image(s) always at a fixed point(s) on the receiver(s).

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74 Specifying Steam and Rating Conditions for Special Purpose Steam Turbines, J. S. Aalto, Manager of Application Engineering, Industrial and Power Systems, General Electric Company, Fitchburg, MA. n.ed.;
U.S. Energy Information Agency Glossary website, available at http://www.eia.gov/tools/glossary/index.cfm (last accessed on December 15, 2016);
PNUCC Committee Report Capabilities of Electric Power Resources, March 2011.

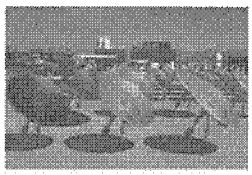
Dish/Engine/Stirling: A CSP system that uses a parabolic dish, a thermal receiver located at the focal point, and an externally heated engine, usually a Stirling engine cycle, to produce electricity.

Efficiency: The ratio of net power generated to total fuel or solar energy input to the cycle.

Fresnel™ Lens: is a flat approximation of a continuous lens in which each of the plano-centric annular regions has the corresponding curvature of the continuous lens.

Generator: In power plant engineering, generator is a generic term that refers to the electrical equipment that is rotated by the steam turbine to produce electricity. It is often an alternator but, even then, commonly referred to as a generator.

Heat Exchangers: These are large, wall-separated pieces of equipment used for transferring heat from a hot fluid source to a different, colder fluid. Examples of heat exchangers are: coal boilers where hot combustion gases heat and boil water passing through tubes; condensers where cold water condenses and cools steam; and the boiler in a Parabolic Trough plant where the hot oil heats water and produces steam.



Infinia 3.5 kW Dish Stirling Systems

Heliostat: A slightly curved mirror used to focus sunlight in a power tower system.

HTF: The Heat-Transfer Fluid (HTF) that flows through the solar receivers and used to generate steam for the power conversion cycle. For a dish system, the working fluid is generally contained within the heat engine.

MW: (megawatt) a capacity equivalent to 1000 kilowatts.

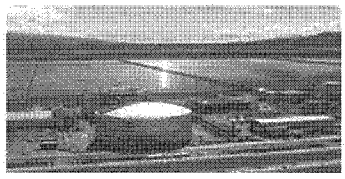
MWHr: (megawatt hour) is power or the electricity produced by a generator operating at a constant 1 MW output for 1 hour.

Molten Salt: For this discussion, molten salt is molten sodium-potassium nitrate (60% $NaNO_3$ and 40% KNO_3). It is used as a liquid storage material and also a heat-transfer fluid to store heat which can be used to provide electricity at night or during periods when the sun is not shining.

Net Power: The power delivered to the grid (MWHrs) over some period of time.

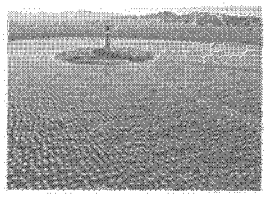
One Sun: The power of the sun at a good solar location on the Earth ~ 1 kWatt/ m^2

Parabolic Trough: a parabolic shaped solar concentrator that focuses along a line. Parabolic troughs track the sun in one direction, mostly from east to west over the course of the day.



Andasol Parabolic Trough Plant

Power Tower or Central Receiver: A CSP system comprising a thermal receiver mounted on top of a central tower and illuminated by a field of slightly curved mirrors (heliostats). The heat is removed from the receiver by a working fluid and used to power a Rankine cycle producing electricity.



Ivanpah Power Tower Plant

Pyranometer: A pyranometers is a device for measuring solar radiation. There are two fundamental types of pyranometers to measure total radiation and direct normal radiation. Total radiation is what would be measured typically on a horizontal surface and includes the radiation coming directly from the sun (direct normal radiation) and the scattered component of radiation coming from other directions (diffuse radiation) Direct normal radiation is important because it is the only component that can be concentrated.

Rankine cycle: a thermodynamic power cycle in which the input is heat and the output is electrical power. For this discussion, water is heated producing high-temperature steam that is used to turn a turbine connected to an electric power generator to produce electricity for the utility grid. The cycle is completed by condensing the steam back to water.

Reflective Concentrator: is a concentrator that utilizes the reflection of solar rays to concentrate the solar energy.

Refractive Concentrator: is one that that refracts or bends the solar rays as they pass through it; like a Fresnel lens.

Secondary Concentrator: is a reflective element (often a cone-shaped device) placed on the receiver in order to effectively increase the size of the receiver aperture without incurring the increased thermal losses from actually having a larger receiver aperture.

Thermal Energy Storage System: an energy storage system comprising molten sodium-potassium nitrate salt, which is heated by the solar energy from temperatures of about 265°C to 390°C. The system often includes hot and cold storage tanks, pumps for moving the molten salt, and heat exchangers for transferring heat from the solar field to the salt and in a separate heat-transfer loop from the hot salt to water producing steam.

Thermal Receiver or receiver: the component of a CSP system on which solar energy is concentrated. The receiver absorbs the heat from the sun at a high temperature and transfers the heat to a working fluid, usually steam.

Turbine: A machine for generating rotary mechanical power from the energy of a stream of fluid (such as water, steam, or hot gas). Turbines convert the kinetic energy of fluids to mechanical energy through the principles of impulse and reaction, or a mixture of the two

APPENDIX IV ANALYSIS OF THE IAS SOLAR DISH TECHNOLOGY

IAS Solar Dish Technology Analysis			
SOLAR CONCENTRATOR			Comments:
4 CIRCULAR LENSES			
Diameter m	6.70		PL. EX. 559 Ra3 023532
Area sq m	35.26		
Solar Racidation kW/m2	1000.00		Good Solar Day 1 kW/m2
Lens assy Area X Solar Radiation kW	35.26		PL. EX. 559 Ra3 023532
Accuracy of the lens manufacturing	0.95		Engineering Estimate
Transmissivity T	0.89		PL. EX. 561 Lucite 0751
Dirt soiling	0.93		Same loss as assumed by IAS.
Energy per single lens transmitted throught the lens kW	27.75		Product of the numbers listed
RECEIVER INTERCEPT CALCULATION			
Struct deflect, lens deflection and alignment and tracking errors	0.90		Effect of movement of the structure, deflection of lens structure, deflection of receiver supports Engineering Estimate
Area of Solar Image in Receivr plane m2	0.79		PL. EX. 562 Movie: Solar Lens on RaPower3 Website Engineering Estimate of the image diameter 1 m
Receiver area m2	0.30		Dimensions of Receiver Aperture Estimate Photograph of the Receiver Engineering Estimate based on 0.60 m x 0.50 m
Receiver Intercept Factor	0.54		Engineering Estimate of intercept factor as 0.60 Note: greater than ratio of areas due to likely flux distribution. Multiply times structural deflection and tracking errors

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POWER SUPPLIED BY SINGLE LENS			Comments:
Optical Efficiency of dish	42.5%		Product of optical parameters accuracy, transmissivity, soiling, and intercept
Total Solar Incident on one Receiver kW	15.0		Product of receiver intercept and power transmitted through a siingle lens
Total Solar per on Dish (4 circular lenses) kW	59.9		4 times the power provided by a single lens assembly
RECEIVER HEAT LOSS CALCULATIONS			
			Iterative solution method
Outer Glass Temp	654.0		Assume glass Temperature
Degrees R	1114.0		In absolute degrees R
Conduction through glass	19450.4		Calculate conduction losses through the glass multiply times 7 tubes and use 0.5 surface area of 0.22 m2 per tube.
Radiation Losses from Glass Tube	9401.7		Calculate radiation losses mujltiply times 7 tubes and use 0.85 surface area of 0.22 m2 per tube
Convection Losses from Glass Tube	10139.3		Calculate convection losses from multiply times 7 tubes and use 0.85 surface area of 0.22 m2 per tube
Rad + Conv	19541.03		Add the losses and iterate until the conduction is equal to the lossses by conection + radiation
Thermal losses from one receiver kW	5.7		From Radiation and convection losses above
Total Thermal losses from the 4 Receivers in kW	22.9		Multiply single receiver losses by 4 receivers.
Thermal loss fractioof the thermal losses	38.2%		Thermal loss divided by total input to the receiver
Receiver Thermal efficiency	61.8%		Absorbed Heat divided by total input to the receiver

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THERMAL LOSSES FROM SCHOTT RECIEVER			Comments:
Solar incidence W/m2	1000		Good Solar Day 1 kW/m2
Concentration of trough	80		General CR
Diameter of tube m	0.07		Reported diameter
Thermal Losses W/m	210		Reference schott receiver tube losses
Schott Rec Efficiency	96.3%		Thermal Efficiency of Schott Receiver

Rankine Cycle Efficiency			
Coal Fired Power Plant T C	540		Coal Plant Operating Temperature
Ambient Temperature c	21		
	0.64		Coal Plant Carnot Effieincey
Actual Coal Fired Effiency	0.33		Typical Coal Plant efficiency
IAS Operating T C	400		
	0.56		IAS Carnot Efficiency
IAS Actual Efficiency	0.29		Apply same fraction of actual/Carnot
			to get cycle Efficiency

Summary of Lens Transactions
From February 16, 2018

Transaction Number	Customer Name	Quantity	Serial Number(s)
1	1 1	1	28660690-1,
2	FAREED ABDULLAH	30	4360-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,
3	FAREED ABDULLAH	3	4372-1,2,3,
4	LORRIANNE AND JOSEPH ABEYI	9	3397-1,2,3,4,5,6,7,8,9,
5	KELSEY ADAMS	33	3820-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,
6	FANISHA ADAMS	1	4302-1,
7	MICHAEL ADAMS	16	4568-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,
8	MICHAEL ADAMS	5	4635-1,2,3,4,5,
9	ROBERT ADAMS 1	5	1148-1,2,3,4,5,
10	ROBERT ADAMS 1	5	2149-1,2,3,4,5,
11	MALCOLM ADAMS JR.	3	3968-1,2,3,
12	BRADLEY AGERS	3	894-1,2,3,
13	RAFAEL AGOSTINI	5	1353-1,2,3,4,5,
14	RAFAEL AGOSTINI	5	1885-1,2,3,4,5,
15	BROOKE AIRGOOD	3	1788-1,2,3,
16	DOUGLAS ALBUS	1	28660639-1,
17	DOUGLAS ALBUS	4	4199-1,2,3,4,
18	DOUGLAS ALBUS	1	28660642-1,
19	DOUGLAS ALBUS	5	4400-1,2,3,4,5,
20	DOUGLAS ALBUS	19	28660799-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,
21	DOUGLAS ALBUS	9	3913-1,2,3,4,5,6,7,8,9,
22	DOUGLAS ALBUS	1	28660641-1,
23	DOUGLAS ALBUS	4	4394-1,2,3,4,
24	DOUGLAS ALBUS	1	28660640-1,
25	MARIE ALCE	6	4248-1,2,3,4,5,6,
26	MARIE ALCE	8	3047-1,2,3,4,5,6,7,8,
27	MARIE ALCE	14	2276-1,2,3,4,5,6,7,8,9,10,11,12,13,14,
28	MARIE ALCE	7	3779-1,2,3,4,5,6,7,
29	LESLIE ALEXANDER	10	1725-1,2,3,4,5,6,7,8,9,10,
30	KENNETH ALEXANDER	1	2709-1,
31	CLARENCE ALEXANDER	5	4647-1,2,3,4,5,
32	CLARENCE ALEXANDER	2	4011-1,2,
33	CLARENCE ALEXANDER	1	4629-1,
34	ROBERT ALEXANDER	2	3387-1,2,
35	LESLIE ALEXANDER	2	661-1,2,
36	KENNETH 1894 ALEXANDER	1	3157-1,

Plaintiff Exhibit 742B

PLEX00742B

Summary of Lens Transactions
From February 16, 2018

Transaction Number	Customer Name	Quantity	Serial Number(s)
4344	Timothy annis	23	28660737-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,
4345	amatullah attar	1	28660232-1,
4346	kevin elkins	26	28660206-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,
4347	derotha jones	1	28660323-1,
4348	dean martin	2	28660299-1,2,
4349	ramon roberts	10	28660557-1,2,3,4,5,6,7,8,9,10,
4350	ramon roberts	10	28660558-1,2,3,4,5,6,7,8,9,10,
4351	mikel sharp	20	28660519-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,
4352	matthew ulrich	61	28660720-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,
	Total	**49,415**	

CERTIFICATE OF SERVICE AND DIGITAL SUBMISSION

I hereby certify that on March 27, 2019, I electronically filed the foregoing using the court's CM/ECF system which will send notification of such filing to the following:

Steven Richard Paul (spaul@nsdplaw.com)
Denver C. Snuffer, Jr. (dcsnuff@aol.com)

I hereby certify that with respect to the foregoing:

(1) all required privacy redactions have been made per 10th Cir. R. 25.5;

(2) if required to file additional hard copies, that the ECF submission is an exact copy of those documents;

(3) the digital submissions have been scanned for viruses with the most recent version of a commercial virus scanning program, System Center Endpoint Protection 2016 (updated daily), and according to the program are free of viruses.

Date: March 27, 2019

s/ Clint A. Carpenter

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Clint.A.Carpenter@usdoj.gov