# 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' MOTION IN LIMINE TO EXCLUDE "EXPERT" TESTIMONY OF NELDON JOHNSON

Judge David Nuffer

## I. Background

#### A. The claims and defenses in this case.

The United States seeks to enjoin Defendants from organizing, promoting, and selling the "solar energy scheme" that they have been promoting since or before 2010.<sup>1</sup> As described in the complaint, the solar energy scheme purportedly offers a "disruptive and revolutionary" approach to capturing and using solar energy.<sup>2</sup> The technology underlying the solar energy scheme, purportedly invented by Neldon Johnson, uses "solar lenses" on "solar towers." This purported technology is, however, only the starting point of Defendants' solar energy scheme.

According to the United States, the Defendants make money by selling "lenses" to customers, which the customers purportedly lease to LTB, LLC. But LTB is a company that

<sup>&</sup>lt;sup>1</sup> ECF Doc. No. 2 and ECF Doc. No. 35 ¶ 1(a).

<sup>&</sup>lt;sup>2</sup> ECF Doc. No. 2 ¶ 16.

<sup>&</sup>lt;sup>3</sup> <u>ECF Doc. No. 2</u> ¶ 17.

exists only on paper; it has never done anything.<sup>4</sup> Nonetheless, Defendants tell customers that LTB will operate and maintain the customer's lens for them, as part of a system that will generate electricity. Defendants tell customers that LTB will sell electricity to a third-party power purchaser, and then pay customers "rental income" for use of their lenses.

Defendants assure their customers that, by purchasing lenses, customers may claim a depreciation deduction and a solar energy tax credit. The underpinnings of Defendants' solar energy scheme are their statements assuring their customers that:

- customers who buy and then purportedly lease the lenses to LTB are in a "trade or business" and have bought the lenses for the purpose of making a profit;<sup>5</sup>
- by virtue of their "trade or business," customers may deduct "business" expenses, consisting mostly of depreciation<sup>6</sup> on the lenses, from their ordinary income like wages from their full-time jobs<sup>7</sup>; and
- customers may claim a solar energy tax credit to further reduce their tax liability.<sup>8</sup>

The United States alleges that Defendants' statements are false or fraudulent as to material matters under the internal revenue laws. Defendants knew or had reason to know that these statements were false or fraudulent when they made the statements while promoting the solar energy scheme. <sup>10</sup>

<sup>&</sup>lt;sup>4</sup> LTB has never done anything; it has never had a bank account, any employees, or any revenue. Pl. Ex. 673, Deposition of LTB1, LLC, July 1, 2017, 10:10-11:1, 14:7-16:7, 18:2-9, 42:10-43:5; 69:6-74:21, 90:19-91:8. LTB and LTB 1 are indistinguishable. LTB1 Dep. 11:9-15.

<sup>&</sup>lt;sup>5</sup> *E.g.*, Pl. Ex. 1 at 2-3.

<sup>&</sup>lt;sup>6</sup> 26 U.S.C. § 162; Pl. Ex. 25 at 1-2.

<sup>&</sup>lt;sup>7</sup> 26 U.S.C. § 167; Pl. Ex. 24; Pl. Ex. 40 at 12, Lunn\_F&L-00037; Pl. Ex. 214; Pl. Ex. 216; Pl. Ex. 492; Pl. Ex. 674.

<sup>&</sup>lt;sup>8</sup> 26 U.S.C. § 48; Pl. Ex. 25 at 2.

<sup>&</sup>lt;sup>9</sup> 26 U.S.C. § 6700(a)(2).

<sup>&</sup>lt;sup>10</sup> 26 U.S.C. § 6700(a)(2).

The United States also alleges that, to increase the tax benefits they promote to their customers, Defendants falsely inflate the value of the lenses to more than 200 percent of the correct value. According to the United States, when Defendants tell customers this falsely inflated purchase price, Defendants make a gross valuation overstatement.

Defendants deny all allegations. They also claim that they relied upon advice of counsel.<sup>13</sup>

The United States will offer evidence showing that Defendants' statements about their solar lenses and the purported tax benefits, were false or fraudulent as to material matters and were gross valuation overstatements. To establish that Defendants knew, or had reason to know that their statements were false or fraudulent, we will offer (among other evidence) testimony and documents from attorneys and accountants who advised Defendants at various times while Defendants were promoting the scheme. We will also offer testimony from Defendants themselves, and an expert witness on solar energy technology. As the factfinder, <sup>14</sup> the Court will evaluate all of the relevant evidence, make credibility determinations, and apply the law to decide:

<sup>&</sup>lt;sup>11</sup> § 6700(a)(2)(B), (b)(1); *See* Pl. Ex. 520, PSK000002 (attached) demonstrating that International Automated Systems Inc. purchases each for \$52.18. Defendants sell the lenses for \$3,500 each.

<sup>&</sup>lt;sup>12</sup> § 6700(a)(2)(B).

<sup>&</sup>lt;sup>13</sup> ECF Doc. No. 22 & ECF Doc. No. 23, Third, Fifth, Sixth, Ninth, Tenth, and Eleventh Defenses.

<sup>&</sup>lt;sup>14</sup> The Court struck Defendants' jury demand. See ECF Doc No. 43.

- (1) what statements Defendants made or furnished while promoting the solar energy scheme, whether such statements were false or fraudulent as to material matters, and whether Defendants knew or had reason to know such statements were false or fraudulent;<sup>15</sup>
- (2) whether Defendants made or furnished gross valuation overstatements as to a material matter; <sup>16</sup> and
- (3) if Defendants made either or both such statements the extent of the injunctive and equitable relief that is appropriate.<sup>17</sup>

## B. Neldon Johnson's Report

On September 15, 2017, defendants Neldon Johnson, RaPower-3, LLC ("RaPower-3"), LTB1, LLC ("LTB"), and International Automated Systems Inc. ("IAS"), disclosed Neldon Johnson as an expert witness and provided his written report to the United States. Johnson is one of the defendants of the case and the purported inventor of the technology used in Defendants' solar energy scheme. Johnson is and has been the manager, and a direct and indirect owner of RaPower-3, IAS, and LTB (among other entities). Labeled the school of the defendants of the case and the purported inventor of the technology used in the labeled the school of the defendants.

Johnson formed IAS in September 1986.<sup>21</sup> Johnson currently serves as the CEO and President of IAS and is its Chairman of the Board.<sup>22</sup> Johnson is the primary inventor of IAS

<sup>&</sup>lt;sup>15</sup> 26 U.S.C. § 6700 (a)(2)(A).

<sup>&</sup>lt;sup>16</sup> 26 U.S.C. § 6700(a)(2)(B).

<sup>&</sup>lt;sup>17</sup> See 26 U.S.C. §§ 6700, 7408.

<sup>&</sup>lt;sup>18</sup> Pl. Ex. 643

<sup>&</sup>lt;sup>19</sup> <u>ECF Doc. No. 2</u> ¶¶ 12, 22.

<sup>&</sup>lt;sup>20</sup> Pl. Ex. 579, Deposition of Neldon Johnson, June 28, 2017 ("Johnson Dep., vol. 1"), 35:5-39:12; 44:25-47:6; 55:10-57:1; 75:19-77:11; 79:14-80:7; 82:11-83:6.

<sup>&</sup>lt;sup>21</sup> Pl. Ex. 507 at 4.

<sup>&</sup>lt;sup>22</sup> Pl. Ex. 643 at 27.

technology and has filed patent applications with the United States Patent and Trademark Office (USPTO) relating to his research and development at IAS.<sup>23</sup> Prior to forming IAS, Johnson worked as an engineer at AT&T for 3 years, and managed a grocery store in Salem, Utah for about 15 years.<sup>24</sup> Johnson also took classes at Brigham Young University, Utah Technical College's Electronics Technology Program and through his employment at AT&T, but did not graduate or obtain a degree from any institute of higher learning.<sup>25</sup>

Johnson does not have a college degree.<sup>26</sup> He has no experience with solar radiation other than his work at IAS.<sup>27</sup> His other experience and work history has no connection with solar radiation.<sup>28</sup> Johnson has never published his data or his findings, or published any articles relating to solar radiation or solar energy.<sup>29</sup> Johnson has never submitted any of his research for peer review.<sup>30</sup> Johnson has never been an expert witness before.<sup>31</sup> Johnson's qualifications to serve as an expert in this case stem solely from his role as the inventor of the purported

<sup>&</sup>lt;sup>23</sup> Pl. Ex. 643, at PLEX00643.0027 through PLEX00643.0054; Pl. Ex. 681, Deposition of Neldon Johnson, October 3, 2017 ("Johnson Dep., vol. 2"), 10:19-25.

<sup>&</sup>lt;sup>24</sup> *Id.* at PLEX00643.0027.

<sup>&</sup>lt;sup>25</sup> *Id.* at PLEX00643.0027; Johnson Dep., vol. 2, 30:16-33:10; 43:23-44:16; 59:25-60:4; 69:8-71:5; 79:13-82:3. Despite the statement that Johnson graduated from Utah Technical College's Electronics Technology Program in 1964, Johnson clarified that he did not graduate and that someone else (who he could not identify) wrote the qualifications page that he attached to his report. Johnson Dep., vol. 2, 59:25-69:7.

<sup>&</sup>lt;sup>26</sup> Johnson Dep., vol. 2, 60:1-4; 70:9-14; 81:18-23;

<sup>&</sup>lt;sup>27</sup> Johnson Dep., vol. 2, 83:1-84:7; 87:3-7.

<sup>&</sup>lt;sup>28</sup> Johnson Dep., vol. 2, 25:7-24; 31:2-5; 32:2-5; 36:21-23; 48:16-20

<sup>&</sup>lt;sup>29</sup> Johnson Dep., vol. 2, 97:5-10; 97:15-98:3; see also Pl. Ex. 643 at PLEX00643.0027.

<sup>&</sup>lt;sup>30</sup> Johnson Dep., vol. 1, 20:14-34:21.

<sup>&</sup>lt;sup>31</sup> Johnson Dep., vol. 2, 98:4-11; *see also* Pl. Ex. 643 at PLEX00643.0027.

technology, having no other experience or education specifically in solar radiation or the production of electricity.

Johnson wrote the report to rebut the expert report of the United States' expert, Dr. Thomas Mancini<sup>32</sup> and to "explain the several components to the energy production system designed and operated by IAS.<sup>33</sup> In his report, Johnson claims to have "formed an opinion, based on practical trials, engineering, and research and development, that the Fresnel lens [a component of the IAS system] that are [sic] sold by RaPower3 are solar energy equipment specifically designed for and capable of generating useful heat that can be used for the generation of electricity and for other useful purposes, and is specifically designed for and capable of producing concentrated sunlight for use with concentrated photovoltaic cells in the production of electricity."<sup>34</sup> Subsequently, Johnson offers three additional opinions "within a reasonable degree of scientific certainty [that] can be replicated and demonstrated with great ease": "1) the lenses exist and are in full production – they are manufactured by a U.S. company and we have 34,000 lenses that have been bought at this particular time; 2) the lenses produce usable heat<sup>35</sup> - this is not debatable and cannot be in dispute; and 3) the lenses are part of a solar array that can be used to produce solar process heat and electric power."<sup>36</sup> However, Johnson believes the report contains only facts, not his opinion.<sup>37</sup>

<sup>&</sup>lt;sup>32</sup> Johnson Dep., vol. 2, 23:19-24:2; Dr. Mancini's report was disclosed on July 28, 2017 pursuant to the Amended Scheduling Order, ECF Doc. No. 205.

<sup>&</sup>lt;sup>33</sup> *Id.*; Pl. Ex. 643 at 1, 21-25.

<sup>&</sup>lt;sup>34</sup> Pl. Ex. 643 at 1.

<sup>&</sup>lt;sup>35</sup> Johnson cites a YouTube video with respect to this opinion: <a href="https://ww.youtube.com/watch?v=mj83JwrUbzE">https://ww.youtube.com/watch?v=mj83JwrUbzE</a>. Pl. Ex. 643 at 25, note 5.

<sup>&</sup>lt;sup>36</sup> *Id.* at 25-26; Johnson Dep., vol. 2, 23:1-24:6.

<sup>&</sup>lt;sup>37</sup> Johnson Dep., vol. 2, 23:1-24:6.

Johnson states in his report that he prepared it "based on [his] own personal knowledge," and his "experience [] accumulated over the years as [he has] conceived, designed and engineered devices and methods in various fields of technology that have resulted in over 35 patent applications and 28 issued patents." However, Johnson himself does not even seem clear about who wrote documents attached to his report and provided unclear testimony about the drafting of his report. Johnson claims to have formed his opinions "based on practical trials, engineering, and research and development," but Johnson fails to provide any, let alone *sufficient*, data in his report or detail his methodology so that the Court could evaluate his opinion. Johnson's report and his testimony at his "expert" deposition are inconsistent, making it unclear exactly how his "expert" testimony will assist the Court in understanding the evidence or determining a fact in issue. Johnson's report also expands outside of his area of expertise and infringes upon the province of the fact-finder, offering pure speculation on the ultimate issues of this case when he has no qualifications or expertise in such areas.

<sup>&</sup>lt;sup>38</sup> Pl. Ex. 643 at 1.

<sup>&</sup>lt;sup>39</sup> Johnson Dep., vol. 2, 59:25-69:7.

<sup>&</sup>lt;sup>40</sup> *Id*.

<sup>&</sup>lt;sup>41</sup> See, e.g., Pl. Ex. 643 at PLEX00643.0027 indicating that Johnson graduated from Utah Technical College and Johnson Dep., vol. 2, 59:25-69:7 where Johnson testified that he did not graduate and the qualifications page contained a mistake; Pl Ex. 643 at 1 and 25-26 containing opinions from Johnson and Johnson Dep., vol. 2, 23:19-24:2 where Johnson testified that his report contains *facts only* and not any opinions; Pl. Ex. 643 at 1 stating that the Fresnel lenses are a single component of the IAS system compared with Johnson Dep., vol. 2, 144:12-145:23; 199:12-200:21 where Johnson testified that a Fresnel lens is an independent system.

<sup>&</sup>lt;sup>42</sup> Pl. Ex. 643, at 10, "Therefore, the only component that ought to be at issue in this litigation is whether the Fresnel lenses sold to customers qualifies as solar energy equipment, not the actual workings of the turbine, heat exchangers or other components"; at 24, "there would be no DOJ action against Rapower3 if its power generation system had not already been successfully commercialized"; at 25, "The only part of our project that can be regulated by the federal government is what is being sold for which tax payers [sic] are claiming a tax credit or a depreciation deduction. This means that the only items that the government can challenge are the

#### II. Argument

Federal Rule of Evidence 702 allows a witness "who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise" *only if*: the witness's "scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue"; the witness's "testimony is based on sufficient facts or data"; the witness's "testimony is the product of reliable principles and methods"; and the witness "has reliably applied the principles and methods to the facts of the case."<sup>43</sup>

Before an expert is permitted to testify, Fed. R. Evid. 702 imposes upon the trial judge an important "gate-keeping" function with regard to the admissibility of expert opinions. <sup>44</sup> The gate-keeping function consists of a two-part analysis: (1) determining whether the proffered expert qualifies to render an opinion; (2) if the expert is qualified, determining whether the expert's opinions were reliable. <sup>45</sup> This gate-keeping function must be applied even if the proffered expert is a party to the case. <sup>46</sup> If the expert is qualified and the opinion reliable, the subject of the opinion must be relevant; i.e., the opinion must help the trier of fact to understand

lenses and the only question is whether the solar Fresnel lens are [sic] solar equipment that produce solar process heat or electric power."

<sup>&</sup>lt;sup>43</sup> Fed. R. Evid. 702; *Cinema Pub*, *L.L.C. v. Petilos*, 2017 WL 1066628, at \*3 (D. Utah 2017) (Nuffer, J.).

<sup>&</sup>lt;sup>44</sup> Ralston v. Smith & Nephew Richards, Inc., 275 F.3d 965, 969 (10th Cir. 2001).

<sup>&</sup>lt;sup>45</sup> *Id* 

<sup>&</sup>lt;sup>46</sup> Scheidt v. Klein, 956 F.2d 963, 968 n.4 (10th Cir. 1992);

the evidence or determine a fact in issue.<sup>47</sup> Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.<sup>48</sup>

### A. Johnson's methodology is flawed and unreliable.

An expert's testimony must be reliable.<sup>49</sup> Under Rule 702, the reliability analysis looks at whether: (1) the testimony is based on sufficient facts or data; (2) the testimony is the product of reliable principles and methods; and (3) whether the expert has reliably applied the principles and methods to the facts of the case.<sup>50</sup> An expert's testimony must be grounded "in the methods and procedures of science" and based on actual knowledge, not "subjective belief or unsupported speculation.<sup>51</sup>

Where an expert testimony's factual basis, data, principles, methods, or their application are called sufficiently into question, the trial judge must determine whether the testimony has a reliable basis in the knowledge and experience of the relevant discipline.<sup>52</sup> In assessing the reliability of expert testimony, the Supreme Court articulated four nonexclusive factors to assist the trial court in its determination: (1) whether the opinion at issue is susceptible to testing and has been subjected to testing; (2) whether the opinion has been subjected to peer review; (3)

 $<sup>^{47}</sup>$  Cinema Pub, LLC v. Petilos, 2017 WL 1066628, at \*8-9 (D. Utah 2017) (Nuffer, J.) (quotation omitted).

<sup>&</sup>lt;sup>48</sup> *Id.* (quotation omitted).

<sup>&</sup>lt;sup>49</sup> Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 592 (1993); *iFreedom Direct Corp. v. First Tennessee Bank Nat. Ass'n*, No. 2:09-CV-205-DN, 2012 WL 3067597, at \*1 (D. Utah July 27, 2012).

<sup>&</sup>lt;sup>50</sup> Fed. R. Evid. 702(b), (c), and (d)

<sup>&</sup>lt;sup>51</sup>Dodge v. Cotter Corp., 328 F.3d 1212, 1222 (10th Cir. 2003) (citing Daubert); see also Mitchell v. Gencorp Inc., 165 F.3d 778, 783 (10th Cir. 1999) (citing Daubert, 509 U.S. 579, at 589-93).

<sup>&</sup>lt;sup>52</sup> *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999) (quotation omitted); *Dodge v. Cotter Corp.*, 328 F.3d 1212, 1221-22 (10th Cir. 2003).

whether there is a known or potential rate of error associated with the methodology used and whether there are standards controlling the technique's operation; and (4) whether the theory has been accepted in the scientific community.<sup>53</sup> Other factors may be relevant to the reliability analysis, including the degree of experience and education of an expert even if the witness is qualified as an expert.<sup>54</sup>

The Court should generally focus on an expert's methodology rather than the conclusions it generates. However, a "court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." Under *Daubert*, any step that renders the analysis unreliable renders the expert's testimony inadmissible; this is true whether the step completely changes a reliable methodology or merely misapplies that methodology. Regardless of the specific facts at issue, the purpose of the *Daubert* inquiry is always "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."

<sup>&</sup>lt;sup>53</sup> *Daubert*, 509 U.S. at 593-94.

<sup>&</sup>lt;sup>54</sup> In re Paoli R.R. Yard PCB Litigation, 35 F.3d 717, 789 (3d Cir. 1994); United States v. Mitchell, 365 F.3d 215, 242 (3d Cir. 2004); In re Cessna 208 Series Aircraft Products Liability Litigation, 2009 WL 3756980, at \*6 (D. Kan. 2009); Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 150 (1999); United States v. Taylor, 154 F.3d 675, 683 (7th Cir. 1998).

<sup>&</sup>lt;sup>55</sup> *Daubert*, 509 U.S. at 595.

<sup>&</sup>lt;sup>56</sup> Gen. Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997)

<sup>&</sup>lt;sup>57</sup> Mitchell, 165 F.3d at 782 (quotation omitted).

<sup>&</sup>lt;sup>58</sup> *Dodge v. Cotter Corp.*, 328 F.3d 1212, 1222-23 (10th Cir. 2003) (quoting *Kumho Tire*, 526 U.S. at 152).

#### 1. Johnson relies upon insufficient facts and data.

Johnson claims to have based his opinions on the thousands of hours of testing he has conducted on the IAS system and component parts, and more specifically, the solar lenses or Fresnel lenses.<sup>59</sup> But it is unclear what facts and data Johnson is relying upon as he did not include any facts and data in his report; Johnson merely made conclusory statements about the efficiencies and performance of the IAS system and Fresnel lenses.<sup>60</sup> Johnson himself does not keep data or results from the testing he claims to have conducted on the IAS system and component parts, including the Fresnel lenses.<sup>61</sup> Johnson also does not keep written records of the testing conditions<sup>62</sup> or any written records that would allow anyone to recreate, replicate or otherwise prove Johnson's tests and resulting claims.<sup>63</sup> Johnson claims that anyone who tested his components or system would replicate his test results<sup>64</sup>; however, given that Johnson does not describe the details of his testing conditions or the testing methods he utilizes, it is impossible that anyone could replicate his findings.

Johnson is also unable to identify any data from any third parties that he claims have testing the IAS system or component parts or even the names of the third parties who may have

<sup>&</sup>lt;sup>59</sup> Johnson Dep., vol. 2, 88:17-90:10; 91:17-22; 103:1-3; 107:16-108:8; 110:23-111:11; 143:12-24; 146:6-16.

<sup>&</sup>lt;sup>60</sup> Pl. Ex. 643.

<sup>&</sup>lt;sup>61</sup> Johnson Dep., vol. 2, 93:22-23; 94:20-23; 102:16-18; 105:3-20; 107:2-12; 108:9-109:7; 111:4-11; 111:18-20; 112:3-5; 114:4-20; 116:14-117:11; 117:14-21; 118:5-10; 119:4-120:10; 122:11-15; 123:2-10; 123:23-124:4; 124:20-125:15; 125:21-127:3; 127:13-15; 129:11-16; 130:12-19; 146:19-25; 147:20-148:1; 151:7-10; 151:20-24; 159:13-19; 161:17-25; 167:8-13; 187:11-188:11;

<sup>&</sup>lt;sup>62</sup> Johnson Dep., vol. 2, 143:12-18; 144:2-11; 146:12-25.

<sup>63</sup> Johnson Dep., vol. 2, 96:10-22; 104:17-23; 123:11-14;

<sup>&</sup>lt;sup>64</sup> Johnson Dep., vol. 2, 225:20-229:9.

run tests on the system or components.<sup>65</sup> Johnson's report and opinions lack a foundation in data and facts and therefore Johnson's testimony is unreliable.

2. Johnson has failed to rely upon reliable principles and methods and has failed to reliably apply the principles and methods to the facts of this case.

To the extent that Johnson has described a methodology in his report and deposition testimony, he seems to assert that he relies upon two concepts: (1) mathematical proofs and (2) actual measurements or actual testing.<sup>66</sup> However, when asked to describe the actual testing or measurements, Johnson fails to articulate the principles and methods he utilized in forming his opinions or in conducting his testing of component parts and the IAS system. Johnson's opinions and testimony are not based on reliable principles and methods.

For example, in his report Johnson makes the statement that that the solar receiver "is approximately 95 percent heat absorbent." Johnson arrived at this conclusion because it is "mathematically provable ... by the material [] used and the ... heat transfer [] coefficients to define those characteristics." Then Johnson claims he tested the actual measurement of the device for a period of time, maybe one hour. Johnson used "high-intensity light" (notably not from the sun) and measured the actual temperature by using electronic temperature measuring devices (or thermometers) installed inside the receiver. Johnson measures the temperature when the system is fully heated; he caps it off so that no transfer fluid is moving and then

<sup>65</sup> Johnson Dep., vol. 2, 109:8-23; 110:13-15; 113:3-12.

<sup>&</sup>lt;sup>66</sup> Johnson Dep., vol. 2, 140:12-146:25; 148:14-151:19; 162:17-164:6.

<sup>&</sup>lt;sup>67</sup> Pl. Ex. 643 at 18; Johnson Dep., vol. 2, 162:17-169:21; 173:5-179:25; 184:14-186:25.

<sup>&</sup>lt;sup>68</sup> Johnson Dep., vol. 2, 174:6-9.

<sup>&</sup>lt;sup>69</sup> Johnson Dep., vol. 2, 174:15-20.

<sup>&</sup>lt;sup>70</sup> Johnson Dep., vol. 2, 164:18-166:21; 176:1-179:25.

calculates the amount of heat loss anticipated through the environment (escaping the insulation of the equipment).<sup>71</sup>

Johnson's methodology in determining a 95% efficiency is unreliable. His "actual testing" did not involve a fully connected, and operating, system<sup>72</sup> and did not actually measure real-world heat loss.<sup>73</sup> Johnson did not provide all of the details of his mathematical calculation nor did he provide the variables and assumptions he used in the purported testing. For example, Johnson did not provide the length of the piping used in the testing, the material the pipe is made from, or specifics about the heat transfer fluid (other than some vague reference to an oil made by Exxon).<sup>74</sup> Johnson's failure to provide sufficient facts and data and describe the testing methodology makes his testimony unreliable and conveniently makes it impossible for anyone to

<sup>&</sup>lt;sup>71</sup> Johnson Dep., vol. 2, 164:18-166:21; 176:1-179:25; 184:14-187:3.

<sup>&</sup>lt;sup>72</sup> Johnson Dep., vol. 2, 167:14-25.

<sup>&</sup>lt;sup>73</sup> Compare with Johnson Dep., vol. 1, 147:19-150:15 where Johnson recognizes that there would be heat loss when heat is transferred through the piping, but does not take that into account in determining efficiency of the solar receiver. Although it is possible that the solar receiver itself could have a separate heat absorbency factor, Johnson's description of his testing and methodology implies that he is measuring the flow of heat through piping without taking into account heat loss.

<sup>&</sup>lt;sup>74</sup> Johnson Dep., vol. 2, 168:1-13. Johnson's testimony regarding the heat transfer fluid to be used is a moving target as Johnson claims he can use whatever heat transfer fluid he wants without having to make any modifications to the equipment to account for the different chemical properties of each potential heat transfer fluid; at times, Johnson claims to be using oil, water, and/or molten salt. Johnson Dep., vol. 1, 68:2-18; 93:14-95:17; 147:19-150:15; 157:1-163:3; Johnson Dep., vol. 2, 156:16-157:11;

confirm that his calculations are correct or state with certainty that his methodology would be accepted in the solar energy or engineering community.<sup>75</sup>

Instead, Johnson estimates the heat absorbency based on a mathematical calculation vaguely described as a product of multiplying coefficients of different components. <sup>76</sup> He is under the impression that if the transfer of solar radiation from the sun through a system to a turbine to produce electricity works mathematically, then it works in the real world and that real-world conditions will not impact the operation of a mathematical proven concept. <sup>77</sup> Relying solely upon a mathematical proof of concept for the justification is not a reliable principle or method, and failure to include the principles and methods that Johnson utilized in his actual testing or for forming his opinions also renders his opinion and "expert" testimony unreliable. <sup>78</sup>

Johnson's conclusory statement that because the Fresnel lenses focused solar radiation into a concentrated point such that one of Johnson's employees holding a piece of wood under the focal point would catch on fire shows just how unreliably he has applied the principles and

<sup>&</sup>lt;sup>75</sup> *Lyman v. St. Jude Med. S.C., Inc.*, 580 F. Supp. 2d 719, 726 (E.D. Wis. 2008) ("if the data underlying the expert's opinion is 'so unreliable that no reasonable expert could base an opinion on them, the opinion resting on that data must be excluded.") (quoting *In re TMI Litig.*, 193 F.3d 613, 697 (3d Cir. 1999)).

<sup>&</sup>lt;sup>76</sup> Johnson Dep., vol. 2, 184:14-24.

<sup>&</sup>lt;sup>77</sup> Johnson Dep., vol. 2, 194:22-198:12.

<sup>&</sup>lt;sup>78</sup> See Tassin v. Sears Roebuck, 946 F. Supp. 1241, 1248 (M.D. La. 1996) (design engineer's testimony can be admissible when the expert's opinions "are based on facts, a reasonable investigation, and traditional technical mechanical expertise, and he provides a reasonable link between the information and procedures he uses and the conclusions he reaches"); O'Conner v. Commonwealth Edison Co., 13 F.3d 1090 (7th Cir. 1994) (expert testimony based on a completely subjective methodology held properly excluded); Kumho Tire Co. v. Carmichael, 119 S.Ct. 1167, 1176 (1999) ("[I]t will at times be useful to ask even of a witness whose experience is based purely on experience, say a perfume tester able to distinguish between 140 odors at a sniff, whether his preparation is of a kind that others in the field would recognize as acceptable.").

methods in this case.<sup>79</sup> There mere fact that the RaPower-3 Fresnel lenses can light a cardboard box or 2x4 piece of wood on fire does not support Johnson's opinion that these lenses can generate electricity or produce "usable heat." The analytical gap between the data Johnson cites and the opinions he offers is just too great.<sup>81</sup>

As is evidenced by Johnson's report and deposition testimony, his opinion is not susceptible to testing or been subjected to testing, <sup>82</sup> has not been subject to peer review, <sup>83</sup> does not have a known or potential rate of error controlling the operating of his testing, <sup>84</sup> and has not been accepted in the scientific community. <sup>85</sup> Johnson's "expert" opinions and testimony are unreliable and are unsupported speculative and conclusory statements. <sup>86</sup> Because Johnson has

<sup>&</sup>lt;sup>79</sup> Pl. Ex. 643 at 26.

<sup>&</sup>lt;sup>80</sup> Pl. Ex. 643 at 25.

<sup>&</sup>lt;sup>81</sup> *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); *see also, United States v. Posado*, 57 F.3d 428, 433 (5th Cir. 1995) (Evidentiary reliability, or trustworthiness, is demonstrated by a showing that the knowledge offered is "more than speculative belief or unsupported speculation.") (quoting *Daubert*, 509 U.S. at 590).

<sup>&</sup>lt;sup>82</sup> Johnson claims that various of the components have been tested by independent third parties, but when pressed, could not provide the names of these third parties, the dates of the purported testing, any data from the testing or written results of the testing. Johnson Dep., vol. 1, 186:20-188:19; Johnson Dep., vol. 2, 109:8-110:15; 112:22-113:21; 123:2-124:4.

<sup>83</sup> Johnson Dep., vol. 1, 20:14-34:21.

<sup>84</sup> Johnson Dep., vol. 2, 103:22-104:14

<sup>&</sup>lt;sup>85</sup> Pl. Ex. 643 at 21-25 where in responding to Dr. Mancini's report and opinions, Johnson implicitly admits that his "disruptive" and "revolutionary" solar energy technology and methodology is not generally accepted in the solar energy community.

<sup>&</sup>lt;sup>86</sup> Daubert, 509 U.S. at 593-94; Masterson Mktg. v. KSL Rec. Corp., 495 F. Supp. 2d 1044, 1050-51 (S.D. Cal. 2007) (Court must find that proffered expert testimony is properly grounded, well-reasoned, and not speculative before it can be admitted; the expert's testimony must be grounded in an accepted body of learning or experience in the expert's field, and the expert must explain how the conclusion is so grounded.)

utilized unreliable methods and principles, and unreliably applied them to the facts of this case, his opinions and "expert" testimony are unreliable and should be excluded.

### B. Johnson's "expert opinions" are not helpful to this Court.

Fed. R. Evid. 702 permits expert opinion testimony when the witness's expertise will "help" the trier of fact understand evidence or determine a fact. Johnson's "expert" testimony and opinions however, are not helpful to the Court, as the trier of fact because: (1) Johnson spends pages of his report discussing issues unrelated to the technology and RaPower-3 Fresnel lenses; <sup>87</sup> (2) Johnson's "expert" testimony would merely be duplicative and cumulative of the testimony he will presumably offer as a fact witness (or testimony and exhibits from other sources) and defendant in this case, and will be a waste of judicial resources; <sup>88</sup> and (3) Johnson confuses technical terms and specific technical aspects of his own equipment. <sup>89</sup>

Johnson's "expert" testimony and opinions are also unhelpful because of Johnson's obvious and inherent bias. Johnson is a defendant in this case and the purported inventor of the solar energy technology. Johnson and his family are all paid by and through his companies, including IAS, RaPower-3, LLC, and Cobblestone Centre. <sup>90</sup> While bias is generally to be

<sup>&</sup>lt;sup>87</sup> See, e.g., Pl. Ex. 643 at 10-11 which includes a discussion of the leasing transaction that a customer engages in after purchasing lenses from RaPower-3.

<sup>&</sup>lt;sup>88</sup> See Ordon v. Karpie, 543 F. Supp. 2d 124, 127-28 (D. Conn. 2006) (excluding proposed expert testimony by party because he is too intertwined in the facts of the case and the proposed testimony would not assist the trier of fact to understand the evidence or to determine a fact in issue; moreover, it would be more prejudicial than probative because of the difficulty in separating his lay testimony from what he did from his expert testimony about what was the proper protocol in the situation).

 $<sup>^{89}</sup>$  Johnson Dep., vol. 2, 103:22-104:14 discussing the definition of "error rate"; 169:22-171:8 Johnson's confusion in discussing the aperture size of the solar receiver and the size of the focal point and solar image.

<sup>&</sup>lt;sup>90</sup> Johnson Dep., vol. 2,202:8-220:16; Pl. Exs. 646, 647, 648, 649, and 650.

evaluated in determining the weight to afford an expert's testimony, in this case, Johnson's bias too great for his "expert" opinion to be of any help to the court. Johnson takes issue with his opinions being challenged and rather than providing a reasoned explanation to the Court through the questions asked by plaintiff's counsel, Johnson is combative and obstinate, refusing to answer questions if he thinks the questioner disagrees with him. Johnson is not an independent expert, and he is clearly unable to separate his interest in the case from his "expert" testimony and opinions. As such, his "expert" testimony is unhelpful to this Court.

Finally, Johnson's "expert" testimony and opinions are unhelpful to this Court, as the fact-finder, because certain of his opinions require no specialized expertise. For example, one of Johnson's opinions is "that the [RaPower-3 Fresnel] lenses exist and are in full production – they are manufactured by a U.S. company and we have 34,000 lenses that have been bought at this particular time." The fact of whether the RaPower-3 Fresnel lenses exist and how many Defendants have collectively purchased is not a fact that requires expert testimony.

#### III. ORDER

IT IS HEREBY ORDERED that the United States' Motion to Exclude Neldon Johnson's Expert Testimony is GRANTED. Johnson shall not be permitted to testify under Fed. R. Evid. 702, or to provide any expert opinion testimony at trial. Johnson's opinions and report are excluded.

<sup>&</sup>lt;sup>91</sup> Johnson Dep., vol. 2, 16:19-22; 19:1-5, 7-10; 23:19-24; 72:25-78:7; 99:19-100:22; 103:10-21; 143:5-11; 164:25-167:7; 180:1-182:17; 191:13-193:12; 193:13-194:1.

<sup>&</sup>lt;sup>92</sup> Pl. Ex. 643 at 25.

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Signed	
	BY THE COURT:
	David Nuffer
	United States District Judge