

John R. Hammond, Jr. – ISB No. 5470
FISHER PUSCH LLP
U.S. BANK PLAZA – 7th Floor
101 S. Capitol Blvd., Suite 701
P.O. Box 1308
Boise, ID 83701
Telephone: 208.331.1000
Facsimile: 208.331.2400
E-mail: jrham@fisherpusch.com

Attorneys for Ecoplexus, Inc.

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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER) Case No. IPC-E-15-01
COMPANY'S PETITION TO MODIFY)
TERMS AND CONDITIONS OF PURPA)
PURCHASE AGREEMENTS)
_____)

IN THE MATTER OF AVISTA) Case No. AVU-E-15-01
CORPORATION'S PETITION TO)
MODIFY TERMS AND CONDITIONS)
OF PURPA PURCHASE AGREEMENTS)
_____)

IN THE MATTER OF IDAHO POWER) Case No. ~~IPC-E-15-01~~ PAC-E-15-03
COMPANY'S PETITION TO MODIFY)
TERMS AND CONDITIONS OF PURPA)
PURCHASE AGREEMENTS)
_____)

ORIGINAL

DIRECT TESTIMONY OF ERIK A. STUEBE

ON BEHALF OF

ECOPLEXUS, INC.

May 18, 2015

1 Q. Please state your name and business address.

2 A. Erik A. Stuebe, 650 Townsend Street, Suite 315, San Francisco, CA 94103

3 Q. Please describe your educational and training background.

4 A. I have a BA in Finance from the University of Minnesota and a Masters in
5 Business Administration (MBA) from Harvard University.

6 Q. Please describe your professional experience in the electric power industry.

7 A. I have been working in the solar industry for seven years, managing all facets
8 of project development and financing for utility scale solar projects. I have led the
9 negotiation and execution of more than fifteen qualifying facility ("QF") contracts for
10 solar generation in various states in the United States representing over one hundred and
11 forty (140MW) megawatts of total capacity. Many of those included negotiation or
12 arbitration related to power purchase or energy sales agreement pricing and their related
13 avoided costs.

14 Q. What is your current position?

15 A. I am the President of Ecoplexus, Inc. ("Ecoplexus").

16 Q. In what business is Ecoplexus engaged?

17 A. Ecoplexus works in the development, design, engineering, construction, and
18 financing of solar energy systems for nonprofit, commercial, municipal, and utility
19 markets.

20 Q. Are you testifying today on behalf of Ecoplexus?

21 A. Yes, I am.

22 Q. Please summarize your testimony.

1 **A.** Given my experience in the electric power industry and recent experience in
2 attempting to secure PURPA contracts for solar Photovoltaic QFs with both Idaho Power
3 Company (“Idaho Power”) and PacifiCorp d/b/a Rocky Mountain Power (“Rocky
4 Mountain Power” or “PacifiCorp”) in Idaho. My testimony highlights the fact that while
5 each of the foregoing utilities may have petitioned the Commission on the basis of the
6 potential of too much “in territory” QF generation versus retail load, and the need to
7 ensure ratepayer indifference the reality is that each utility has a unique situation and the
8 Idaho Public Utilities Commission and ratepayers may be best served to have separate
9 outcomes or structures for each. Ecoplexus does not support the proposed change to a
10 shorter term for QFs and believe it’s most practical to deal with the petitioning utilities’
11 concerns via contract structuring as opposed to contract term. We don’t believe changing
12 the QF contract term address the issues raised by the petitioning utilities. Indeed, any
13 changes now to contract terms and additional viable renewable energy resources may
14 have negative consequences related to future Environmental Protection Agency (“EPA”)
15 111d compliance requirements for Idaho. In regard to the petitioning utilities, we believe
16 that Rocky Mountain Power’s situation is different than Idaho Power’s and that they have
17 been engaged in an effort to stymie QF development in their territory altogether for some
18 time. This is supported by Rocky Mountain Power’s treatment of Ecoplexus’ fifteen
19 proposed QF project applications submitted to the utility between 2014 to the present.

20 Additionally, we believe Rocky Mountain Power’s selective use of certain
21 information done so to draw incorrect conclusions about alleged ratepayer harm due to
22 QF development. Simultaneously, Rocky Mountain Power is turning a blind eye to the
23 benefits of a balanced amount of solar QF development in its territory -- benefits that

1 could mitigate certain risks inherent to the utility's Preferred Portfolio as described in the
2 recently-released 2015 Integrated Resource Plan that is contained in Case No. PAC-E-15-
3 04-01 ("2015 IRP").

4 **Q.** Please explain what you mean by Rocky Mountain Power's "selective use of
5 information" in its Petition under this Docket.

6 **A.** The basis for Rocky Mountain Power's Petition was nearly identical to that of
7 Idaho Power's: namely, that "Given the large quantity of existing and new QF requests,
8 and considering the uncertainties in projecting avoided cost rates out 20 years or more,
9 current Idaho avoided cost rates are adversely impacting retail customers." Petition at p.
10 7. Rocky Mountain Power states this influx of PURPA pricing requests as potentially
11 causing "irreversible harm to customers" due to potentially inappropriately priced
12 PURPA contracts that might "violate the ratepayer indifference standard and [the]
13 Commission's goal of protecting retail customers." Petition at p. 22.

14 In support of this Petition, Rocky Mountain Power presents data regarding both
15 executed PURPA contracts and PURPA pricing requests across its entire six-state system,
16 with 1,732 MW of executed PURPA contracts and 3,641 MW of PURPA pricing
17 requests, for a total of 5,373 total PURPA MW, representing 79% of PacifiCorp's (Rocky
18 Mountain Power's parent company) average retail load and 108% of PacifiCorp's
19 minimum retail load. On the surface, these figures could present cause for concern;
20 however, these raw numbers obfuscate certain facts.

21 **Q.** Please explain what facts you're referring to.

22 **A.** First, this proceeding is in relation to Idaho -- not PacifiCorp's entire territory -
23 - and Rocky Mountain Power has significantly less PURPA obligations in Idaho. Rocky

1 Mountain Power states that it has 275.5 MW of proposed PURPA projects and 189.6
2 MW of “Idaho PURPA contracts already executed by PacifiCorp,” for a total of 465.1
3 MW of “existing and proposed PURPA obligations in Idaho.” Petition at p. 5. It is also
4 important to keep in mind that the gulf between a “proposed” project and an operational
5 project is exceptionally large. Even the number of “executed” PURPA contracts is not a
6 truly accurate reflection of PURPA obligations, given that the utility is only obligated to
7 pay for the power once the QF comes online, and there are still many potential pitfalls
8 that can cause a project to fail after signing a power purchase agreement.

9 **Q.** In your professional experience, what is the level of difficulty associated with
10 bringing a project to operation, even if it features a signed power purchase agreement?

11 **A.** The level of difficulty is very high. A power purchase agreement is a large
12 piece of the puzzle, but, by no means, the only one. A project can still fail to be viable
13 from an interconnection standpoint. It could also fail to receive its required use permits.
14 There may also be issues uncovered during the site assessment process, such as
15 endangered species, that can’t be cost effectively mitigated. The developer also has to
16 secure financing for the project, which is difficult for even those with a great deal of
17 experience in this area; not only must the project financials make sense, but the terms of
18 the power purchase agreement must be “financeable” by equity providers. All these
19 factors, along with proper energy, capacity and any ancillary services value pricing over
20 the term of the contract will more efficiently and effectively regulate the amount of
21 power that may actually come online versus a measure that will effectively kill all QF
22 development.

1 Q. Do you believe the data Rocky Mountain Power presented regarding its QF
2 obligations accurately portrayed the current state of Idaho solar QF development in its
3 Petition?

4 A. No. Regardless of Rocky Mountain Power's stated PURPA obligations, the
5 fact remains that the utility, according to the recently released 2015 IRP, has not even a
6 single solar PURPA contract in Idaho. To our knowledge, and Rocky Mountain Power
7 has confirmed orally that Ecoplexus' proposed projects are the first QF solar generation
8 projects in their queue in Idaho. PacifiCorp states that it has "a total of 31 solar projects
9 under contract representing 579 MW of nameplate capacity. Of these, fifteen projects
10 totaling 523 MW are new since the 2013 IRP Update." 2015 IRP at p. 65; Table 5.7 -
11 Non-owned Solar Resources. In reviewing these 579 MW of solar projects under
12 contract, all of them are sited in either Utah or Oregon -- not Idaho. The vast majority of
13 Rocky Mountain Power's stated PURPA obligations are wind QFs, which total 166 MW.
14 2015 IRP at p. 65; Table 5.4 - Non-owned Wind Resources.

15 Moreover, Rocky Mountain Power, in its Petition, does not differentiate between
16 the types of technologies that qualify as a QF (e.g., wind, solar, biomass, cogeneration,
17 hydro, etc.), nor does it opine on the unique benefits of each technology, particularly
18 distributed generation utility scale solar. Those benefits can include locational ones in
19 terms of less line losses, potential transmission and distribution upgrade expense
20 deferment, and reactive power supply or voltage stabilization.

21 Q. Are there other ways in which solar QF development in Idaho could benefit
22 Rocky Mountain Power's ratepayers?

1 **A.** Yes. In fact, by attempting to curtail PURPA development in Idaho, which 5-
2 year contract terms would in effect do, Rocky Mountain Power is exposing its ratepayers
3 to financial risks. Those include potential transmission constraint based costs, the
4 inherent volatility of natural gas prices, potential volatility in front office trading or
5 wholesale market costs or unexpected power hedging costs, and impending changes in
6 Federal policy with the Clean Air Act § 111(d). Its ratepayers will further be exposed to
7 system reliability risks associated with both energy and capacity deficits as described in
8 Rocky Mountain Power’s 2013 Integrated Resource Plan, along with questions regarding
9 the viability of Rocky Mountain Power’s planned transmission line projects. All of these
10 risks could be mitigated by an appropriate, balanced amount of solar PURPA power
11 delivered to Rocky Mountain Power in Idaho under long-term (i.e., 20 year) contracts.

12 **Q.** Please explain a bit more about EPA Rule 111(d) and how ratepayers, the
13 utilities and the State of Idaho may be impacted?

14 **A.** In general, the EPA rules and compliance calculations will look more
15 favorably upon in state renewable energy sources. In the Idaho Governor’s Office of
16 Energy Resources reply comments to the EPA for docket EPA HQ OAR 2013 0602 filed
17 on November 26, 2014, the Governor’s Office eludes to potential scenarios which could
18 create significant financial impacts for the State of Idaho, the utilities and ultimately their
19 ratepayers. “If the EPA requires Idaho to further reduce emissions, the EPA may
20 ultimately force Idaho to resort to energy sources that would increase overall carbon
21 intensity. As an example, if Idaho is required to comply with the rules as written, at least
22 one Idaho utility would be forced to; 1) operate its peaking plants more often, at a higher
23 cost to consumers and with greater emissions than its Natural Gas Combined Cycle

1 (“NGCC”) units; and 2) rely on market purchases which can be costly, unreliable and
2 have unknown carbon profiles.

3 The Governor’s Office argues that hydro should be considered as a renewable
4 energy source. It is not very likely the EPA will allow this, as it has been firm on the
5 types of generation and their place in the new regulations from the start. There is not
6 enough political willpower to force a change nationally on that topic. This creates the
7 following potential scenario that the Governor’s office points out. “Idaho proposes a
8 minimum target of 550 pounds of CO₂ per MWh. For Idaho, this target emissions rate
9 would include NGCC generation at 70% capacity factor to replace out of state coal
10 generation consistent with Building Block 2 of the proposed rule.” Having to move more
11 baseload generation to in state thermal resources from the lowest cost loading order out
12 of state coal will just pressure retail electric rates. That will also increase ratepayers’
13 exposure to natural gas pricing which increases risk as has been pointed out by many
14 witnesses. Additionally if thermal plants, which are currently used as peakers or as load
15 following to hydro, have to be moved to serve baseload. What will serve peak loads cost
16 efficiently? Solar, or solar plus storage is very well positioned to provide a valuable in
17 state peaking resource.

18 Ratepayers could be impacted in the following ways. If Idaho opts for a
19 “portfolio basis” approach and there is a compliance gap in any year the utilities with in
20 state generation will be required to go out and procure compliance instruments, those
21 may be RECs. These procurement costs would need to be passed on to ratepayers.
22 Conversely, if Idaho develops more in state renewable resources including solar, the
23 utilities will be in a position to potentially sell compliance instruments to other state’s

1 utilities that may be out of compliance. These revenues can help to keep retail rates
2 stable or be lowered. It is highly likely that renewable energy generation will have
3 greater value than just local energy and capacity in the future.
4 Finally, it is entirely likely that Idaho Power and Rocky Mountain Power may be
5 impacted in different ways. Rocky Mountain Power, having very limited in state
6 generation sources now would not have to take any of the brunt of any compliance issues
7 under either the portfolio approach or the individual sources approach proposed by the
8 EPA. Idaho Power has done more with solar QFs and renewable energy to date, yet they
9 will still be more exposed. The Commission should require that Rocky Mountain Power
10 increase its in state renewable energy generation capacity to better support the State of
11 Idaho and its other utilities in the upcoming EPA 111d environment. It is also worth
12 noting that Rocky Mountain Power, under the currently proposed EPA rules, has the
13 choice to use its system wide RECs for compliance in any state it wants. It is not likely
14 they will use those on behalf of Idaho, as Washington and Wyoming have larger
15 compliance issues looming over them. Ecoplexus suggests the Commission should
16 consider including a REC or Compliance Certificate value in its QF contracts and
17 requiring that any in state QFs the utilities contract with must deliver the RECs to the
18 utilities. Finally, those can only be used in Idaho for EPA 111d purposes.

19 **Q.** Please describe, as you understand it, Rocky Mountain Power's stated capacity
20 deficit.

21 **A.** According to its 2013 IRP, Rocky Mountain Power has a summer peak load
22 capacity deficiency that grows to 2,308 MW by 2022 with on-peak energy shortfalls first
23 appearing in 2018. Order No. 33105 at 1. Rocky Mountain Power further reports that

1 “during on-peak periods, the first energy shortfall appears in July 2018 and by 2022
2 available system energy falls short of monthly load in January, July, August, and
3 October.” 2013 IRP, Figure 5.5; Order No. 33015 at 1.

4 **Q.** Please describe for the Commission your experience with Rocky Mountain
5 Power related to your proposed solar QFs.

6 **A.** On October 21, 2014, Ecoplexus submitted pricing requests for two 20 MW-
7 AC solar QFs, Idaho Falls PV1 and Bancroft PV1, to Bruce Griswold of PacifiCorp.
8 Additionally, on February 11, 2015 Ecoplexus submitted a further four solar QF projects
9 totaling 130MW-AC. Those four projects were the specific ones that Rocky Mountain
10 Power cited in their Petition in this consolidated document.

11 **Q.** Did Mr. Griswold confirm receipt of the pricing requests?

12 **A.** Yes. Mr. Griswold responded on October 22, 2014, asking if the proposed
13 projects were fixed-tilt or single axis, and provided indicative pricing letters in references
14 to the two projects on December 1, 2014. Confirmation was also given on the February
15 2015 pricing requests.

16 **Q.** What were the contract terms and levelized prices contained in those indicative
17 pricing letters?

18 **A.** The contract term for both projects was for 20 years, commencing on October
19 30th, 2016. The 20-year nominal levelized price for Idaho Falls PV1 was \$48.00/MWh,
20 or \$47.41 if the QF elected levelized pricing, due to the estimated degradation of the solar
21 generation equipment. For Bancroft PV1, the 20-year nominal levelized price was
22 \$47.76, or \$47.18, if the QF elected levelized pricing. The terms provided for the
23 February 2015 project submissions were provided on March 25, 2015 and had prices

1 ranging from \$32 to \$34 on a levelized basis but only a 5 year contract term was
2 proposed.

3 **Q.** Did Ecoplexus request Energy Sales Agreements for its QFs?

4 **A.** Yes. In various phone calls during 2014 with Rocky Mountain Power,
5 Ecoplexus requested Rocky Mountain Power's Energy Sales Agreement ("ESA"). We
6 were told on all occasions that they don't have one for Idaho and they would need to
7 revise one from a different State. On December 11, 2014, having not received a draft by
8 that time, Ecoplexus requested Rocky Mountain Power's standard ESA which could be
9 applied to any project applications. The request was sent to both Mr. Griswold and Mr.
10 Paul Clements in PacifiCorp's Salt Lake City office.

11 **Q.** Were the draft ESAs ever received?

12 **A.** No. Two months later, on February 11, 2015 as part of additional project
13 applications, Ecoplexus again emailed Mr. Griswold and Mr. Clements to inquire about
14 the status of the Rocky Mountain Power ESA for all of its projects. Mr. Griswold
15 responded directly by saying that their attorney was "working on a draft PPA" and that he
16 expected to have us a draft for review "in the next two to three weeks."

17 **Q.** Did Rocky Mountain Power provide the ESAs within that time frame?

18 **A.** No. To date, no ESAs have ever been received from Rocky Mountain Power.
19 Instead, during that time period, Rocky Mountain Power petitioned the Commission for
20 relief from its obligations to provide 20-year PURPA contracting terms.

21 **Q.** What was Ecoplexus' next course of action?

22 **A.** On March 10th, having never received an ESA from Rocky Mountain Power,
23 Ecoplexus submitted two executed ESAs -- executed under Ecoplexus' wholly-owned

1 special purpose entity, Fresh Air Energy II, LLC (FAE II), as the seller -- to Mr.
2 Griswold, accompanied by letters stating that FAE II had “unequivocally committed FAE
3 II to a legally enforceable obligation to sell the output of its generation to PacifiCorp over
4 the life of the ESA.”

5 **Q.** What was the template you used for the ESA?

6 **A.** Since Rocky Mountain Power had failed to provision a draft ESA, Ecoplexus
7 used a recent Idaho PUC approved agreement as template; it incorporates what we
8 understand to be all of the contractual provisions required by the Commission for a solar
9 QF sited in Idaho.

10 **Q.** What was the avoided cost rate and contracting term included in the ESA?

11 **A.** The levelized avoided cost rate was \$72.15/MWh, and the contracting term
12 was for 20 years. The source of the \$72.15/MWh avoided cost pricing was Idaho
13 Power’s recently-approved IRP-based methodology rates found in Case No. IPC-E-14-20
14 (Application for an ESA between Idaho Power and Boise City Solar), ran as a surrogate
15 for Rocky Mountain Power.

16 **Q.** What was the Scheduled First Energy Date and Scheduled Operation Date
17 contained in the ESAs?

18 **A.** May 1, 2016, and June 15, 2016, respectively, for both QFs.

19 **Q.** Did Rocky Mountain Power acknowledge receipt of the ESAs?

20 **A.** Yes. Mr. Griswold acknowledged receipt that day via email, on March 10,
21 2015, stating that they will “review and revert.”

22 **Q.** Did Rocky Mountain Power provide a formal response?

1 A. Yes. On March 25, 2014, Mr. Griswold sent a letter stating that PacifiCorp
2 denied that a Legally Enforceable Obligation (“LEO”) existed base on the “unilateral
3 execution and delivery of the Idaho Power contracts.” This letter was accompanied by
4 updated indicative pricing featuring proposed contracting terms of five (5) years.

5 Q. Do you believe that a LEO still exists between FAE II and PacifiCorp?

6 A. Yes. FAE II has unequivocally committed itself to sell the output of the
7 generation to PacifiCorp over the life of the ESA. Moreover, Ecoplexus continues to
8 develop the projects.

9 Q. What further actions has Ecoplexus taken to substantiate its claim that a LEO
10 exists?

11 A. Ecoplexus has had executed site control agreements for both properties,
12 submitted Interconnection Applications for the two projects, and commenced the use
13 permitting process.

14 Q. Is Ecoplexus/FAE II still on track to meet the Scheduled First Energy and
15 Schedule Operation Date deadlines contained in the ESA?

16 A. Yes.

17 Q. Do you have any further information to share regarding Ecoplexus’
18 interactions with Rocky Mountain Power or Idaho Power as it relates to your projects?

19 A. No.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 18 day of May, 2015, I served a true and correct copy of the foregoing by delivering the same to each of the following individuals by electronic mail, addressed as follows:

Donovan E. Walker
Regulatory Dockets
Idaho Power Company
1221 W. Idaho St. (83702)
PO Box 70
Boise, ID 83707-0070
E-mail: dwalker@idahopower.com
dockets@idahopower.com

Donald L. Howell, II
Daphne Huang
Deputy Attorneys General
Idaho Public Utilities Commission
472 W. Washington (83702)
PO Box 83720
Boise, ID 83720-0074
E-mail: don.howell@puc.idaho.gov
daphne.huang@puc.idaho.gov

Don Reading
6070 Hill Road
Boise, ID 83703
E-mail: dreading@mindspring.com

Benjamin J. Otto
Idaho Conservation League
710 N. Sixth Street (83702)
PO Box 844
Boise, ID 83701
E-mail: botto@idahoconservation.org

Matt Vespa
Sierra Club
85 Second St., 2nd Floor
San Francisco, CA 94105
E-mail: matt.vespa@sierraclub.org

Leif Elgethun, PE, LEED AP
Intermountain Energy Partners, LLC
PO Box 7354
Boise, ID 83707
E-mail: leif@sitebasedenergy.com

Dean J. Miller
McDevitt & Miller LLP
420 W. Bannock St.
Boise, ID 83702
E-mail: joe@mcdevitt-miller.com

Kelsey Jae Nunez
Snake River Alliance PO Box 1731
Boise, ID 83701
E-mail: knunez@snakeriveralliance.com

Electronic Copies Only:

Ken Miller
Snake River Alliance
E-mail: kmiller@snakeriveralliance.com

Ted Weston
PacifiCorp/ dba Rocky Mountain Power
201 S. Main Street, Suite 2300
Salt Lake City, UT 84111
E-mail: ted.weston@pacificorp.com

Daniel E. Solander
Yvonne R. Hogle
PacifiCorp/ dba Rocky Mountain Power
201 S. Main Street, Suite 2300
Salt Lake City, UT 84111
E-mail: daniel.solander@pacificorp.com
yvonne.hogle@pacificorp.com

Electronic Copies Only:

Data Request Response Center
PacifiCorp
E-mail: datarequest@pacificorp.com

C. Tom Arkoosh
Arkoosh Law Offices
802 W. Bannock St., Ste. 900 (83702)
PO Box 2900
Boise, ID 83701

E-mail: tom.arkoosh@arkoosh.com

Electronic Copies Only:

Erin Cecil
Arkoosh Law Offices
E-mail: erin.cecil@arkoosh.com

Eric L. Olsen
Racine, Olson, Nye, Budge
& Bailey, Chartered
201 E. Center
PO Box 1391
Pocatello, ID 83204-1391
E-mail: elo@racinelaw.net

Anthony Yankel
29814 Lake Road
Bay Village, OH 44140
E-mail: tony@yankel.net

Peter J. Richardson
Gregory M. Adams
Richardson Adams, PLLC
515 N. 27th Street
Boise, ID 83702
E-mail: peter@richardsonadams.com
greg@richardsonadams.com

Ronald L. Williams
Williams Bradbury, PC
1015 W. Hays St.
Boise, ID 83702
E-mail: ron@williamsbradbury.com

Irion Sanger
Sanger Law, PC
1117 SW 53rd Avenue
Portland, OR 97215
E-mail: irion@sanger-law.com

Michael G. Andrea
Senior Counsel Avista Corporation
1411 E. Mission Ave., MSC-23
Spokane, WA 99202

E-mail:
michael.andrea@avistacorp.com

Clint Kalich, Manager
Resource Planning & Analysis
Avista Corporation
1411 E. Mission Ave., MSC- 7
Spokane, WA 99202
E-mail: clint.kalich@avistacorp.com

Frederick J. Schmidt
Pamela S. Howland
Holland & Hart, LLP
377 S Nevada Street
Carson City, NV 89703
E-mail: fschmidt@hollandhart.com

Richard E. Malmgren
Micron Technology, Inc.
800 South Federal Way
Boise, ID 83716
E-mail: remalmgren@micron.com

Scott Dale Blickenstaff
The Amalgamated Sugar Co LLC
1951 S. Saturn Way, Suite 100
Boise, ID 83702
E-mail: sblickenstaff@amalsugar.com

Andrew Jackura
Sr. Vice President North America Development
Camco Clean Energy
9360 Station Street, Suite 37
Lone Tree, CO 80124
E-mail:
andrew.jackura@camcocleanenergy.com



John R. Hammond, Jr.