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April 23, 2015

Via Hand Delivery

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Jean Jewell, Secretary Idaho Public Utilities Commission 472 W. Washington St. Boise, Idaho 83720

Re: IPC-E-15-01, AVU-E-15-01, PAC-E-15-03 Intermountain Energy Partners, LLC

Dear Ms. Jewell:

Enclosed for filing in the above matter, please find an original and nine (9) copies of the Testimony of Mark van Gulik. A copy of the Testimony has been designated as the "Reporter's Copy." In addition, a disk containing MS Word version of the Testimony is enclosed for the Reporter.

If you have any questions, please do not hesitate to contact me.

Kindly return a file stamped copy to me.

Very Truly Yours,

McDevitt & Miller LLP

Dean J. Miller

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2015 APR 23 PM 2: 42 IDAHO PUBLIC UTILITIES COMMISSION

Attorneys for Intermountain Energy Partners, LLC

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S PETITION TO MODIFY TERMS AND CONDITIONS OF PURPA PURCHASE AGREEMENTS)) CASE NO. IPC-E-15-01)
IN THE MATTER OF AVISTA CORPORATION'S PETITION TO MODIFY TERMS AND CONDITIONS OF PURPA PURCHASE AGREEMENTS)) CASE NO. AVU-E-15-01)
IN THE MATTER OF ROCKY MOUNTAIN POWER COMPANY'S PETITION TO MODIFY TERMS AND CONDITIONS OF PURPA PURCHASE AGREEMENTS)) CASE NO. PAC-E-15-03))
)))

DIRECT TESTIMONY OF MARK VAN GULIK

April 23, 2015

1	Q.	Please state your name and business address.	
2	А.	Mark van Gulik, 1109 Main Street, Suite 402, Boise Idaho.	
3	Q.	Please describe your educational and training background.	
4	А.	I am a graduate with a Bachelor of Science in Construction Management, Boise State	
5		University. I worked as a Construction Professional in a capacity as a Project	
6		Manager to Division Manager for over 27 years. Beginning in 2010, I have worked	
7		specifically in the Renewable Energy Market focusing on Solar Energy Production. I	
8		have completed several courses relating to the Solar Industry including the North	
9		American Board of Certified Energy Practitioners, (NABCEP).	
10	Q.	Please describe your professional experience in the electric power industry.	
11	Α.	Beginning in 2010, I formed a Renewable Energy Development firm, Sunergy World,	
12		Inc. and installed and developed a variety of smaller projects (10 KW) to (100 KW) in	
13		eastern Oregon. I then continued the development of a variety of larger Utility Scale	
14		Projects in Idaho, Oregon and California. To date, I have been involved with the	
15		completion of a 3 MW Distributed Solar Project in California, a 500 KW Project in	
16		Oregon, and numerous developments in Idaho including Boise City Solar (40 MW),	
17		Mt. Home Solar (20 MW), and Pocatello Solar (20 MW).	
18	Q.	What is your current position?	
19	А.	I am a principal member and President of Intermountain Energy Partners (IEP).	
20	Q.	In what business is IEP engaged?	
21	А.	IEP is a utility scale alternative energy development company, focusing on solar,	
22		wind, hydro, and natural gas technologies in the North America markets.	

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1	Q.	Are you testifying today on behalf of	Intermountain Energy Partners?
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2 A. Yes I am.

3 Q. Please summarize your testimony.

A. Based on my experience in the industry generally and based on our recent experience
in Idaho in particular, I will express two perspectives:

First, the downward trend in avoided cost pricing in Idaho is such that fewer
projects will be able to obtain financing and there is not an urgency for the
Commission to shorten contract length, if the Commission's goal is to slow down or

9 stop the pace of PURPA renewable energy development.

10Second, the market for investment in energy sales agreements with short durations11of two to five years is non-existent. The consequence of a Commission order limiting

12 energy sales agreements to two or five years would be to bring any meaningful

13 PURPA development in Idaho to a halt.

14 **Recent experience with pricing.**

15 Q. Based on your experience in renewable energy development, does IEP have

16 connections with potential equity investors and/or debt institutions in renewable solar17 projects?

A. Yes. IEP has strong relationships with approximately 25 potential equity investors
 and 12 potential debt institutions. Our relationships include: Fortune 100 companies,

- 20 the largest vertically integrated renewable energy companies in the United States
- 21 market, smaller niche companies, international companies, major US Banks, and hard

22 money lenders. These corporations also include a number of top utility companies

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across the US interested in this type of investment that will provide a long-term stable return.

Q. Based on this experience, are you familiar with the criteria potential equity investors
take into account in evaluating potential equity investment in renewable solar
projects?

Yes I am. In general terms, as potential risk increases, investors require 6 A. correspondingly higher returns. Currently the market is a seller's market for viable 7 8 renewable energy projects as the available equity supply outpaces viable project demand. However, projects still need to meet an acceptable risk profile for the 9 10 expected financial returns. The market has established clear criteria required for 11 projects at different risk profiles. Examples of risk elements include: the status of entitlements, tax treatment (sales income, property), provisions in energy sales 12 13 agreements that create uncertainty (including the 90-110 provisions and a provision triggering a material default in the event of undefined material deviations from energy 14 estimates in recent Idaho Power contracts), power rates, ESA term length, technology 15 type, status of land control and permitting, status of interconnection, environmental 16 impact studies, and many other minor elements. 17 18 Q. Has IEP developed PURPA solar projects in Idaho? Yes. IEP obtained from Idaho Power Company (Idaho Power) Energy Sales 19 A. Agreements for these projects: 20 Boise City Solar-Case No. IPC-14-20 (20 MW) 21

Mountain Home Solar-Case No. IPC-14-26 (20MW)

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1		 Pocatello Solar 1-Case No. IPC-14-27 (20MW)
2		 Clark 1-Case No. IPC-14- 28 (71 MW)
3		 Clark 2-Case No. IPC-14-29 (20 MW)
4		 Clark 3-Case No. IPC-14- 30 (30 MW)
5		 Clark 4-Case No. IPC-14-31 (20 MW)
6	Q.	What is the status of these projects as of today?
7	А.	The Boise City, Mountain Home and Pocatello projects have made security deposits
8		required by the Energy Sales Agreements, totaling approximately \$3,600,000 and IEP
9		is in the process of finalizing agreements with equity investors. The Clark projects
10		were unable to make security deposits by the required dates and Idaho Power has
11		terminated those ESAs.
12	Q.	What were the prices contained in the Energy Sales Agreements for these projects?
13	А.	On a twenty year levelized basis, and taking into account the Commission approved
14		Solar Integration Charge, the "net prices" (levelized Price – levelized Solar Integration
15		Charge) were:
16		 Boise City Solar-Case No. IPC-14-20 (20 MW): \$71.43
17		 Mountain Home Solar-Case No. IPC-14-26 (20MW): \$59.42
18		 Pocatello Solar 1-Case No. IPC-14-27 (20MW): \$59.32
19		 Clark 1-Case No. IPC-14- 28 (71 MW): \$57.96
20		 Clark 2-Case No. IPC-14-29 (20 MW): \$56.72
21		 Clark 3-Case No. IPC-14- 30 (30 MW): \$56.07
22		 Clark 4-Case No. IPC-14-31 (20 MW): \$55.66.

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- Q. Did IEP expose the Energy Sales Agreements for these projects to potential equity
 investors?
- A. Yes. IEP expended considerable efforts exposing those projects to potential equity
 investors including many of the most reputable companies in the market. In total, we
 put each of the projects in front of at least four distinct financial companies that
 conducted a thorough review process. This process included site tours of each
 property along with extensive due diligence that required many dedicated man-hours
 from both IEP and these potential investment companies.
- 9 Q. In this process, did you learn of risks that potential investors perceive with investment
 10 in Idaho PURPA projects?
- Yes. We learned investors perceive risk resulting from a number of factors, most 11 A. importantly factors that create uncertainty. In regards to projects in Idaho, the primary 12 sources of perceived risk were: the "90-110" provision in existing Energy Sales 13 Agreements, a contractual term in existing Energy Sales Agreements triggering a 14 15 material default for undefined "material deviations" from energy estimates, and the 16 current and future treatment of solar projects for state personal property tax purposes. 17 Each of these perceived risk factors elevated the required equity investment return 18 threshold for individual projects primarily due to the uncertainty perceived by equity 19 investors.
- Q. As net prices (defined above) ranged downward from the \$71.43 per MwH for Boise
 City Solar to \$55.66 for Clark 4, did it become more difficult to attract equity capital?

Van Gulik, Di 5 Intermountain Energy Partners, LLC Case No. IPC-E-15-01 Case No. AVU-E-15-01 Case No. PAC-E-15-03

1	А.	Yes. Investors' interest in projects decreased with decreasing net energy rates. The
2		end result was the inability of capital partners to post security deposits for Clarks 1-4
3		even though Clark Solar 1-4 were evaluated by the same capital groups that posted
4		security deposits for Boise Solar 1, Mountain Home Solar 1, and Pocatello Solar 1.
5	Q.	Do you have any other projects in Idaho Power's service territory that you have
6		attempted to develop?
7	А.	We have an additional 10 projects totaling 200MW that have requested and received 5
8		year indicative pricing from Idaho Power. That pricing is below the rates for Clark
9		Solar 1-4, and we think it is highly unlikely that they will attract equity investment
10		with the indicative pricing for 5 years provided by Idaho Power in January. The
11		perceived risk is much higher than the perceived risk for Clark's 1-4, because the term
12		is only 5 years and not 20 years, and the other major perceived risk issues remain.
13		While we can only speculate as to the perceived success of the remaining projects
14		Idaho Power has in their ESA queue, knowing that this is a hot seller's market and no
15		further ESAs have been executed, is consistent with our experiences in the Idaho
16		market that current avoided cost pricing has rendered further development very
17		unlikely.
18	Q.	What conclusions have you drawn from your recent experience in attempting to obtain
19		equity financing for Idaho renewable solar projects?
20	А.	The equity investment companies we were working with evaluated each project
21		separately to create an overall risk profile and projected financial forecast and
22		associated expected return. They would then evaluate the strength of the return

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1		against the perceived risk profile and determine the strength and viability of a project.
2		This evaluation process was not disclosed to us, but we were made aware of the
3		relative weakness of all projects. We were also made aware of material changes to the
4		perceived risk profiles that increased or decreased the interest of each capital partner
5		for each project as those changes happened. For risk elements that had high
6		uncertainty, typically the potential capital investor would use the worst-case scenario
7		to evaluate return potential, reducing the interest in projects with a low return. Of all
8		the perceived risk components, the most chilling effect has been seen for the projects
9		with only 5 year terms however, followed by the other uncertainties I have mentioned
10		above.
11	Q.	What effect did the termination of the Clark 1-Clark 4 contracts have upon the total
12		amount of PURPA solar projects under contract but not yet constructed?
13	A.	According to Exhibit 2, page 4 of 6 accompanying the testimony of Randy Alphin, as
14		of January 30, 2015, there were 411 MW of Idaho solar PURPA contracts. The Clark
15		projects accounted for 141 MW of that total, reducing the total to 270 MW.
16	Q.	Based on your experience, is the amount of PURPA solar capacity under contract but
17		not yet constructed a good predictor of the amount of solar PURPA capacity that will
18		actually come into existence?
19	Α.	As our experience indicates, even after obtaining an executed Energy Sales
20		Agreement, a developer faces many hurdles before bringing a project on-line. A
21		signed Firm Energy Sales Agreement is not be any means a guarantee of eventual
22		success and requests for indicative pricing is much less so.

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1	Market for investment in renewable projects depending on contract length.	
2	Q.	You previously mentioned the IEP obtained indicative pricing from Idaho Power for
3		projects with five year contract lengths. Based on your experience, do you believe
4		there is a market for equity investment in five year contracts?
5	A.	An investment in a five year contract would be highly speculative—the investor would
6		have to gamble that prices for a subsequent replacement contract would be higher or at
7		least the same as the existing agreement. We have not found any investors willing to
8		undertake that kind of speculation.
9	Q.	Do you have specific projects with indicative pricing from Idaho Power in Idaho?
10	A.	Yes.
11	Q.	Have you attempted to find equity investors and/or debt lenders for those projects?
12	А.	Yes, as I have discussed above.
13	Q.	Has there been any interest from equity investors and/or debt lenders for those
14		projects?
15	А.	No.
16	Q.	What are the primary reasons given for the lack of interest?
17	А.	Utility scale renewable energy projects have an amortization period longer than 5
18		years, typically 15-30 years. If the ESA term is shorter than the amortization period,
19		the project is considered speculative by potential financing partners and is not
20		typically financeable as an independent power production facility.
21	Q.	What is the shortest term that is typically acceptable to potential financing partners in
22		the United States PURPA project market?

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1	A.	I am aware of projects with an ESA with a 10-year term finding financing. However,	
2		that financing has only been in states with attractive state tax incentives. For states	
3		without attractive state tax incentives, a 15-year term is typically the minimum term	
4		required to attract market financing.	
5	Q.	Does Idaho have attractive state tax incentives?	
6	A.	No.	
7	Q.	Is it reasonable to expect a shorter term to be acceptable to potential financing partners	
8		for projects that have attractive energy payments in Idaho?	
9	А.	No. Rates would need to be much higher than we would expect in Idaho for a term	
10		shorter than 15 years to be attractive to investors due to our lack of state tax	
11		incentives. They would have to be even higher yet for a term shorter than 10 years to	
12		be attractive to investors. Since energy rates have been dropping for each successive	
13		issued indicative pricing and integration charges have been increasing it is reasonable	
14		to assume the combination of projected energy rates with shorter terms will not be	
15	acceptable to financing partners in the near or medium term future. This effect is		
16	further compounded by the reduction in the federal Investment Tax Credit from 30%		
17		to 10% at the end of 2016.	
18	Conclus	ion.	
19	Q.	Based on your testimony, do you have any concluding observations for the	
20		Commission?	
21	А.	In my testimony, I have not touched on issues such as the legality of reducing contract	
22		lengths to the levels proposed by the utility companies and associated public policy	

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1		considerations. I have, however, attempted to demonstrate that the downward trend in
2		avoided cost pricing coupled with increasing integration charges will likely slow the
3		pace of solar PURPA development in Idaho. I therefore think it would be premature
4		for the Commission to reduce contract lengths as requested by the utility companies
5		because that would certainly bring further renewable development under PURPA to an
6		immediate halt.
7	Q.	Does that conclude your testimony?

8 A. Yes it does.

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CERTIFICATE OF SERVICE

I hereby certify that on the 23° day of April, 2015, I caused to be served, via the method(s) indicated below, true and correct copies of the foregoing document, upon:

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