

KRISTINE A. SASSER  
DEPUTY ATTORNEY GENERAL  
IDAHO PUBLIC UTILITIES COMMISSION  
PO BOX 83720  
BOISE, IDAHO 83720-0074  
(208) 334-0357  
BAR NO. 6618

RECEIVED  
2014 OCT 31 PM 4:35  
IDAHO PUBLIC  
UTILITIES COMMISSION

Street Address for Express Mail:  
472 W. WASHINGTON  
BOISE, IDAHO 83702-5918

Attorney for the Commission Staff

## BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF )	
IDAHO POWER COMPANY FOR APPROVAL )	CASE NO. IPC-E-14-19
OR REJECTION OF AN ENERGY SALES )	
AGREEMENT WITH GRAND VIEW PV SOLAR )	COMMENTS OF THE
TWO, LLC, FOR THE SALE AND PURCHASE )	COMMISSION STAFF
OF ELECTRIC ENERGY. )	
_____ )	

**COMES NOW** the Staff of the Idaho Public Utilities Commission, by and through its Attorney of record, Kristine A. Sasser, Deputy Attorney General, and in response to the Notice Modified Procedure issued in Order No. 33119 on September 5, 2014, in Case No. IPC-E-14-19, submits the following comments.

### BACKGROUND

On July 25, 2014, Idaho Power (Company) filed an Application with the Commission for approval or rejection of an Energy Sales Agreement (Agreement) with Grand View PV Solar Two, LLC (Grand View), for the sale and purchase of electric energy. Idaho Power requests that the Commission accept or reject the Agreement between Idaho Power and Grand View PV Solar Two, LLC, under which Grand View would sell and Idaho Power would purchase electric energy generated by Grand View's 80 megawatt (MW) solar photovoltaic project located approximately

20 miles southwest of Mountain Home, Idaho. The Agreement between the parties was executed on July 17, 2014.

The Agreement is for a term of 20 years. Idaho Power states that the Agreement was executed in compliance with the Commission's orders directing the implementation of PURPA for the State of Idaho and contains negotiated avoided cost rates based upon the incremental cost, Integrated Resource Plan (IRP) methodology available to solar projects whose generation will exceed 100 kilowatts (kW). Idaho Power explains that the Agreement also contains negotiated solar integration charges as directed by the Commission in Order No. 33043, as well as several other negotiated provisions requiring specific Commission approval. Idaho Power states that the 20-year estimated contractual obligation based upon estimated generation levels, including avoided cost rates and solar integration charges, is approximately \$310,237,634.

The proposed project is expected to consist of approximately 340,480 polysilicon photovoltaic panels installed on a single axis tracking system, supported by a fixed post and beam structure. Grand View selected July 1, 2016, as its Scheduled Operation Date. Various requirements have been placed upon Grand View in order for Idaho Power to accept energy deliveries from the project. Idaho Power states that it will continue to monitor compliance with these requirements throughout the term of the Agreement.

Idaho Power explains that this Agreement is the first of its type submitted for approval that contains negotiated avoided cost rates based upon the incremental cost integrated resource plan pricing methodology. Prices were determined on an incremental basis with the inclusion of this project in its queued position of proposed projects on Idaho Power's system. Over the 20-year term of the Agreement, monthly rates vary from approximately \$31/megawatt hour (MWh) for light load hours in early months of the Agreement to as high as \$159/MWh for heavy load hours in the later years of the Agreement. The equivalent 20-year levelized avoided cost rate would amount to approximately \$73.41/MWh.

Article 21 of the Agreement provides that the Agreement will not become effective until the Commission has approved all of the Agreement's terms and conditions and declared that all payments Idaho Power makes to Grand View for purchases of energy will be allowed as prudently incurred expenses for ratemaking purposes.

## **STAFF ANALYSIS**

Under PURPA, utilities are required to purchase power produced by Qualifying Facilities (QFs) at avoided cost rates established by the Commission. Purchases by the utility are mandatory, not discretionary. Whether the purchase is in the public interest has already effectively been determined through PURPA itself — if a project meets the requirements of a QF, then the mandatory purchase requirements apply to the utility. The potential benefits of a QF, such as its impact on the economy, its effect on generating local tax revenue, its ability to create jobs, or its environmental benefits may all be significant, but they are generally outside of the scope of the Commission's consideration. The Commission's authority with regard to PURPA contracts is to ensure that the rates, terms and conditions contained in proposed power sales agreements are reasonable. The rates in the agreements must accurately reflect the utility's avoided costs, and the terms and conditions must fairly protect both the QFs and the utility and its ratepayers. Consequently, Staff's comments on the proposed Agreement focus exclusively on these areas.

### **Grand View Solar Pricing**

Rates in the Agreement were determined using the incremental cost IRP methodology. The rates consist of three components: (1) the avoided cost of energy, (2) the avoided cost of capacity, and (3) the solar integration charge. Essentially at a basic level,

$$\textit{Total Avoided Cost} = \textit{Avoided Cost of Energy} + \textit{Avoided Cost of Capacity} - \textit{Solar Integration Cost}$$

The avoided cost of energy is based upon the incremental costs the utility would incur, but for the addition of the QF resource, to generate power itself or to purchase power from another source. The avoided cost of capacity reflects the cost of constructing or purchasing a generation resource capable of producing that energy. The solar integration charge is intended to account for the expense of integrating solar resources into the utility's distribution and transmission system.

### **The Avoided Cost of Energy**

Idaho Power determines the avoided cost of energy by choosing the highest displaceable incremental cost being incurred during each hour of the QF's proposed contract term. Displaceable incremental costs are limited to (1) incremental costs for the utility-owned thermal resources including Bridger, Boardman, Valmy, Danskin, Bennett Mountain, and Langley Gulch

that are online and operating at above their minimum load level, (2) the incremental cost associated with longer-term firm purchases, and (3) the incremental cost of market purchases as determined by the AURORA model on an hour-to-hour basis. Next, the highest displaceable incremental cost is multiplied by the QF's hourly generation profile to produce the payment for each hour. For example,

*Highest Displaceable Incremental Cost for Hour 1 x QF Forecast Generation for Hour 1,  
Highest Displaceable Incremental Cost for Hour 2 x QF Forecast Generation for Hour 2,  
Highest Displaceable Incremental Cost for Hour 3 x QF Forecast Generation for Hour 3,*

These products are then summed over heavy load and light load hours of each month, and divided by the corresponding forecast QF generation to get the results of heavy load and light load prices for each month of the contract term.

After an extensive review of Idaho Power's application of the incremental cost IRP methodology, Staff has identified a number of flaws that it believes make the final results deviate significantly from the true avoided cost of energy. Staff believes it is appropriate to address the perceived flaws in the incremental cost IRP methodology now in order to ensure that accurate avoided cost rates are applied in this Agreement and other future contracts.

Idaho Power generally described its proposed application of the methodology in Case No. GNR-E-11-03 (*See Bokenkamp, Di. pp. 10 - 33*). Although the Commission approved use of Idaho Power's incremental cost IRP methodology in Order No. 32697, full application of the methodology has not occurred until now. The Grand View and Boise City Solar contracts will be the first solar contracts to contain rates determined using the methodology. At the time of writing of these comments, 11 additional contracts have been submitted containing rates developed using the methodology. Thus, it is critical to correct the flaws before the methodology is applied to any project.

Intense scrutiny of the methodology did not occur in the GNR-E-11-03 case because the methodology had yet to actually be applied. Now that it has been applied, it is only now that it has become possible to closely examine the details of the methodology. Staff believes that the Commission's approval of the incremental cost IRP methodology in Order No. 32697 was intended to be general and based on the concept, not specific based on yet-to-be-determined details. As stated earlier, Staff believes the Commission must ensure that the avoided cost rates are as accurate as possible. Despite Grand View and Idaho Power both apparently negotiating in good faith based on the rates in the proposed Agreement, Staff believes the Commission has both



the obligation and the authority to order that the contract rates be re-computed, correcting the flaws identified by Staff.

Staff believes the Commission's authority to order that the rates be modified is supported, in part, by a recent decision of the Idaho Supreme Court. In *Idaho Power Company v. Idaho Public Utilities Commission and Grouse Creek Wind Park*, 155 Idaho 780, 316 P.3d 1278 (2013), the Court concluded that any rates at which electric utilities can purchase power must be approved by the Commission and that the Commission is not required to accept whatever rates are set forth in power purchase agreements.

Staff will address each of the perceived flaws in more detail below.

#### Assumptions about Displaceable Resources

As proposed, the incremental cost IRP methodology assumes that the resource of the highest displaceable incremental cost always has enough volume to be displaced. For example, if Bridger 1 is the resource of the highest displaceable incremental cost for a specific hour, then Bridger 1 sets the avoided cost of energy for that hour, even though it may only have 10 MW to be displaced while the QF is expected to produce 80 MW during that hour. Idaho Power pointed out in Case No. GNR-E-11-03 that “[t]his simplification may introduce some error...[I]t will always be in favor of the QF since Idaho Power begins with the highest incremental cost resource that is displaceable to set the avoided cost for any hour” (See Bokenkamp, Di. pp. 26).

This simplification introduces significant errors that become greater as project size increases. For an 80 MW project like Grand View, the errors can amount to millions of dollars. Staff believes this flaw could be corrected by assigning QF capacity to different resources in the order of incremental cost values, (i.e. from the highest displaceable to the second highest displaceable to the third highest displaceable...) until all the QF capacity is distributed to various resources. The final price is the weighted average of a set of incremental costs with different displacements. For example, for the 22<sup>nd</sup> hour of March 14, 2017, the displaceable output and the displaceable incremental cost are shown in Table 1.

**Table 1. Displaceable Output and Displaceable Incremental Cost for the 22<sup>nd</sup> Hour of March 14, 2017**

Displaceable Output (MW)														
Bridger 1	Bridger 2	Bridger 3	Bridger 4	Boardman	Valmy 1	Valmy 2	Danskin 1	Danskin 2	Danskin 3	Bennett Mtn	LG	LT Firm Purchase	Market Purchase	Mkt Clearing Price
63.19	53.32	52.48	43.60	4.55	0.00	0.00	0.00	0.00	0.00	0.00	40.40	0.00	0.00	38.45
Displaceable Incremental Cost (\$/MWh)														
Bridger 1	Bridger 2	Bridger 3	Bridger 4	Boardman	Valmy 1	Valmy 2	Danskin 1	Danskin 2	Danskin 3	Bennett Mtn	LG	LT Firm Purchase	Market Purchase	Hourly Incremental Cost
27.34	27.62	29.14	29.37	32.76	0.00	0.00	0.00	0.00	0.00	0.00	32.47	0.00	0.00	32.76

The avoided cost of energy for Grand View for that hour can be calculated as follows:

$$\begin{aligned}
 & \text{Avoided Cost of Energy for the 22}^{nd} \text{ hour of March 14, 2017} \\
 &= 32.76 * (4.55/80) + 32.47 * (40.4/80) + 29.37 * [(80 - 4.55 - 40.4)/80] \\
 &= 31.13
 \end{aligned}$$

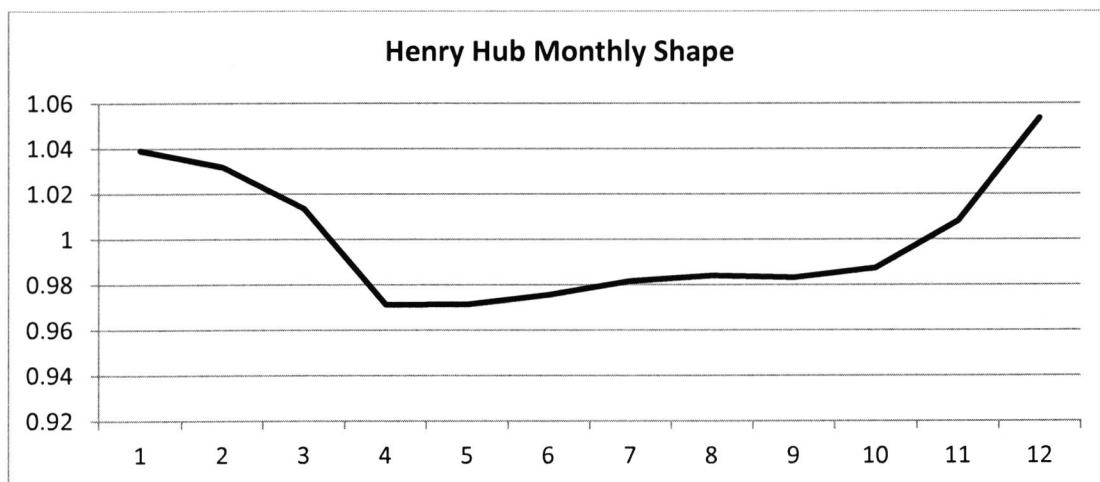
This new method takes into account the real displaceable capacities of the resources, and assigns QF's total capacity to each resource from the high to low incremental cost values until all the capacity is distributed. Prices under this new methodology are lower than or equal to those under the original IRP methodology, but never higher. Staff believes the new method is able to capture the true avoided cost of energy more accurately, and recommends the Commission consider the displaceable capacities of the resources and adopt this new method in calculating the avoided cost of energy.

#### Assumptions about Fuel Forecasts

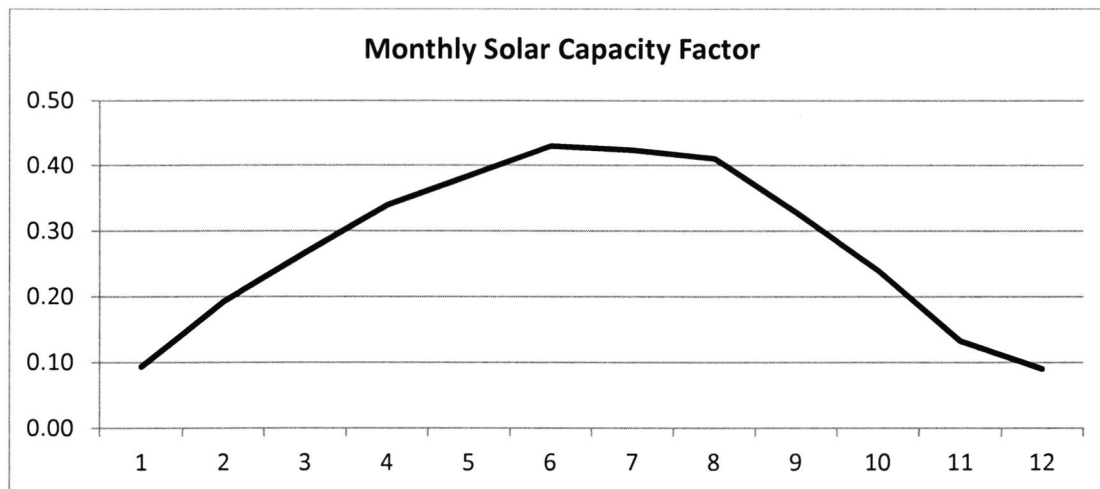
The current methodology assigns one fuel price to each year, assuming the fuel price stays the same over the entire year. This is less of a problem for coal-fired plants, because typically coal prices stay the same within a year in a contract. But when it comes to gas-fired plants, their fuel prices vary from month to month. In general, natural gas is more expensive during the winter than it is during the summer (See Figure 1). Conversely, solar generation is lower during the winter than it is during the summer (See Figure 2). When the IRP methodology applies a fixed annual natural gas price without considering the monthly variations, the QFs are underpaid in the winter and overpaid in the summer. Because the QFs produce more energy in the summer when natural gas price is lower, the overpayment amount is greater than the underpayment amount, and thus the overall effect is overpayment to QFs.

Staff re-calculated the solar prices with the monthly variations considered, and results showed that prices for Grand View dropped a small amount. This flaw is likely not an issue in calculating the avoided cost of energy for wind projects, because wind generation profiles do not seem to be related to natural gas prices. However, in a solar case, solar generation profiles and natural gas prices are correlated with temperature positively and negatively, respectively. Therefore, it is inappropriate to use the annual average natural gas price in calculating the avoided cost of energy.

Staff, in re-calculating rates for Grand View, has incorporated modeling changes to account for monthly gas price variations. Staff recommends that the Commission adopt Staff's modeling changes for Grand View and for other future contracts.



**Figure 1. Henry Hub Monthly Shape of Scaling Factors**



**Figure 2. Monthly Solar Capacity Factor**

### **The Avoided Cost of Capacity**

Under the incremental cost IRP methodology, the avoided cost of capacity is based on the cost of a simple cycle combustion turbine (SCCT) from the Company's 2013 IRP. A SCCT is assumed as a surrogate resource that Idaho Power would avoid building absent the capacity provided by the QF. The cost of the SCCT is multiplied by the peak-hour capacity factor of the PURPA resource to account for the amount of capacity the PURPA resource will provide during Idaho Power's peak-hour period between 3:00 p.m. and 7:00 p.m. in July, because the utility's need for capacity is driven by the summertime peak-hour loads during that period.

The avoided cost of capacity is only paid by the utility when the utility experiences a capacity deficit. At the time the Agreement was being negotiated and signed, Idaho Power's first deficit was expected to occur in 2016. Consequently, the capacity component of the rates in the Agreement is based on an assumption of a 2016 capacity deficit.

In calculating Grand View's avoided cost of capacity, Idaho Power used a 6.70 percent Weighted Average Cost of Capital. Although this is inconsistent with the 8.18 percent Weighted Average Cost of Capital used in the SAR model, Staff believes it is appropriate to use 6.70 percent in this case. Because rates in the proposed Agreement are based upon the IRP methodology, it is more important to be consistent with the discount rate used in the Company's 2013 IRP, than to be consistent with the SAR methodology.

Staff believes that both the assumptions and the methods used by Idaho Power to calculate the avoided cost of the capacity are reasonable. However, as more data become available from

this and other solar PURPA facilities, Staff expects Idaho Power to regularly revisit its peak-hour capacity analysis for future solar contracts.

### **Solar Integration Charges**

The Agreement also contains a solar integration charges that were negotiated and agreed to by the parties. Although the integration charges are based on Idaho Power's 2013 solar integration study, the study was not yet complete during contract negotiations. However, the most currently available data and analysis from the study was used by the parties in the course of negotiations. The negotiated solar integration charge starts at \$0.99/MWh for the first year of the Agreement (2015) and escalates to \$1.84/MWh in 2036. The equivalent 20-year levelized solar integration charge would amount to approximately \$1.28/MWh.

Idaho Power currently has 60 MW of existing solar penetration based on recently signed Oregon contracts. As a result, Grand View's 80 MW spans two penetration levels—40 MW at the 0-100 MW cost and 40 MW at the 100-300 cost. The solar integration charges in the Agreement are blended costs from these two penetration levels.

Staff believes that the method used by Idaho Power to calculate the solar integration charge is reasonable. Staff also believes it is reasonable to base the solar integration charge on Idaho Power's best estimate at the time the Agreement was negotiated, rather than on the final integration charges now proposed in Case No. IPC-E-14-18. In any event, the difference between the solar integration charge in the Agreement and that proposed in IPC-E-14-18 is very minimal.

### **Effect on Contract Rates of Staff's Proposed Modifications**

Staff's proposed rates are included as Attachment 1. If all of the computational modifications proposed by Staff are made, the avoided cost rates in the Agreement would be decreased by approximately \$2.84 per MWh, levelized over the life of the contract. Payments from Idaho Power to Grand View would be reduced by approximately \$12.8 million over the 20-year term of the Agreement. Because 100 percent of PURPA costs are recovered in base rates, or alternatively passed through at 100 percent in Idaho Power's Power Cost Adjustment (PCA), this difference would be a direct benefit to ratepayers.

### **90/110 Firmness Requirement**

This Agreement does not contain a 90/110 firmness requirement. Instead, it contains provisions for a combination of a pricing adjustment, a Mechanical Availability Guarantee (MAG), a solar integration charge, and solar forecasting fees. Idaho Power states that it prefers that 90/110 firmness be included in all PURPA QF agreements, although Grand View preferred a MAG and forecasting costs. Idaho Power maintains that the use of a MAG is not a replacement for the firmness determinations of the 90/110 provisions; however, based on negotiations and an agreed to price adjustment, the Company states that it is comfortable and confident that the Agreement contains provisions to reasonably assure that the project performs in conformance with its generation estimates and, if not, the project receives a reduced price for the non-conforming month's generation.

More specifically, the Agreement allows for a five percent deviation in the monthly net energy deliveries from the generation profile estimates provided by the project, without assessing a price adjustment. If the project's actual generation deviates downward by more than five percent of its generation estimates, then a corresponding percentage adjustment to the monthly price is imposed. However, the adjustment is limited to a maximum price reduction of ten percent, and if the project energy deliveries exceed 100 percent of the original estimates there is no price adjustment.

Staff believes this pricing adjustment is a critical element of this contract because it provides some assurance that the initial prices calculated and included in the contract for a 20 year period are based upon accurate estimates. Moreover, the pricing adjustment helps to ensure that the rates paid to Grand View are commensurate with the degree of energy firmness delivered by the project. In Staff's opinion, the price adjustment alone carries the most weight in assuring that the Agreement's terms are a reasonable substitute for the 90/110 firmness requirement. The effectiveness of this provision requires, however, that Idaho Power strictly enforce the contract term that consistent and material deviations from the hourly energy estimates in the generation profile will be considered by Idaho Power to be a material breach of the Agreement.

The Agreement includes a MAG that requires the project be mechanically capable of generating during 85 percent of the hours when the sun is shining. Conceptually, this is the same requirement that has been applied to several wind QFs. Although Staff has no objection to this provision, Staff believes it has little value because it is already in the QF's best interest to maintain

a mechanical availability that it as high as possible. Quite simply, if a QF is not mechanically available, it cannot produce energy and receive payments from the utility.

Finally, the Agreement includes provisions requiring the QF to pay a small charge for solar forecasting. The solar forecasting charge is capped at 0.1 percent of Idaho Power's annual payments to the QF. This is the same requirement that has been included in other PURPA wind agreements in which forecasting has been required. Staff believes this contract provision and the 0.1 percent cap are reasonable.

Staff believes that collectively, the requirements for a price adjustment mechanism, the MAG, the forecasting charge, and the solar integration charge are a reasonable substitute for the 90/110 requirement that has been imposed on intermittent generation in the past.

### **Additional Contract Provisions**

New provisions providing for actual delay damages as opposed to liquidated damages are included in the Agreement, consistent with Order No. 32697. In addition, the parties negotiated a 50/50 split of environment attributes (aka renewable energy credits). Finally, as with all PURPA QF generation, the project must be designated as a network resource (DNR) to serve Idaho Power's retail load on its system. Consequently, the Agreement contains provisions requiring completion of a Generator Interconnection Agreement (GIA), compliance with GIA requirements, and designation as an Idaho Power network resource as conditions of Idaho Power accepting delivery of energy and paying for the same under the Agreement. In order for the project to maintain its DNR status, there must be a power purchase agreement associated with its transmission service request that maintains compliance with Idaho Power's non-discriminatory administration of its Open Access Transmission Tariff (OATT) and maintains compliance with FERC requirements.

Staff believes these additional contract provisions are reasonable and comply with prior Commission orders.

### **RECOMMENDATIONS**

Staff believes that the rates contained in the Agreement should be revised to account for the energy cost computation issues identified by Staff. Staff recommends that the spreadsheet model used for computing the avoided cost of energy be modified to account for monthly variations in natural gas price, thus, monthly variations in dispatch costs of Idaho Power's gas-




fired resources. Staff also recommends that the model be modified to allow for hourly dispatch costs to be assigned in proportion to the cost and quantity of each resource able to be displaced by the QF in each hour. These modeling modifications are described in more detail above in these comments. When Staff's proposed adjustments are made to spreadsheets used to compute the rates, the resulting rates are those shown in Attachment 1.

Staff believes that all of the remaining terms and conditions contained in the Agreement are acceptable and in compliance with applicable Commission orders.

Staff recommends that the Commission direct Idaho Power to revise the rates in the Agreement to reflect the methodology changes proposed by Staff, obtain concurrence by the project developer, and resubmit the Agreement for Commission approval. If Staff's recommended rates are included in a revised Agreement, then Staff recommends that the Commission approve all of the Agreement's rates, terms, and conditions and declare that all payments Idaho Power makes to Grand View for purchases of energy will be allowed as prudently incurred expenses for ratemaking purposes.

Respectfully submitted this 31<sup>ST</sup> day of October 2014.

  
Kristine A. Sasser  
Deputy Attorney General

Technical Staff: Rick Sterling

i:\misc\comments\ipce14.19ksrps comments

**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
**Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)**

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2014_01	\$25.25	\$22.53	\$47.78	\$23.84	\$22.53	\$46.37	\$25.06	\$22.53	\$47.60
2014_02	\$24.12	\$22.53	\$46.65	\$23.02	\$22.53	\$45.55	\$23.96	\$22.53	\$46.50
2014_03	\$19.93	\$22.53	\$42.46	\$15.53	\$22.53	\$38.06	\$19.22	\$22.53	\$41.75
2014_04	\$3.89	\$22.53	\$26.42	\$0.92	\$22.53	\$23.45	\$3.49	\$22.53	\$26.03
2014_05	\$19.35	\$22.53	\$41.88	\$9.69	\$22.53	\$32.23	\$18.09	\$22.53	\$40.63
2014_06	\$18.53	\$22.53	\$41.07	\$7.77	\$22.53	\$30.30	\$16.70	\$22.53	\$39.23
2014_07	\$32.69	\$22.53	\$55.23	\$27.45	\$22.53	\$49.98	\$32.01	\$22.53	\$54.55
2014_08	\$33.15	\$22.53	\$55.68	\$26.59	\$22.53	\$49.13	\$32.09	\$22.53	\$54.62
2014_09	\$27.32	\$22.53	\$49.86	\$22.98	\$22.53	\$45.51	\$26.74	\$22.53	\$49.28
2014_10	\$23.22	\$22.53	\$45.76	\$22.90	\$22.53	\$45.43	\$23.18	\$22.53	\$45.72
2014_11	\$28.18	\$22.53	\$50.72	\$25.69	\$22.53	\$48.23	\$27.77	\$22.53	\$50.30
2014_12	\$27.55	\$22.53	\$50.08	\$26.90	\$22.53	\$49.43	\$27.47	\$22.53	\$50.00
2015_01	\$26.11	\$22.62	\$48.73	\$25.47	\$22.62	\$48.09	\$26.03	\$22.62	\$48.65
2015_02	\$26.76	\$22.62	\$49.38	\$25.65	\$22.62	\$48.27	\$26.60	\$22.62	\$49.22
2015_03	\$21.54	\$22.62	\$44.16	\$17.04	\$22.62	\$39.66	\$20.82	\$22.62	\$43.44
2015_04	\$7.57	\$22.62	\$30.19	\$0.48	\$22.62	\$23.10	\$6.63	\$22.62	\$29.24
2015_05	\$20.48	\$22.62	\$43.10	\$6.38	\$22.62	\$28.99	\$18.19	\$22.62	\$40.81
2015_06	\$20.81	\$22.62	\$43.43	\$11.18	\$22.62	\$33.80	\$19.49	\$22.62	\$42.11
2015_07	\$35.22	\$22.62	\$57.83	\$28.67	\$22.62	\$51.29	\$34.37	\$22.62	\$56.98
2015_08	\$35.17	\$22.62	\$57.79	\$28.20	\$22.62	\$50.81	\$34.05	\$22.62	\$56.66
2015_09	\$30.57	\$22.62	\$53.19	\$25.14	\$22.62	\$47.76	\$29.85	\$22.62	\$52.47
2015_10	\$25.93	\$22.62	\$48.55	\$25.28	\$22.62	\$47.89	\$25.85	\$22.62	\$48.47
2015_11	\$28.45	\$22.62	\$51.07	\$26.82	\$22.62	\$49.44	\$28.18	\$22.62	\$50.80
2015_12	\$28.49	\$22.62	\$51.11	\$27.77	\$22.62	\$50.39	\$28.39	\$22.62	\$51.01
2016_01	\$32.14	\$22.66	\$54.80	\$30.43	\$22.66	\$53.09	\$31.86	\$22.66	\$54.52
2016_02	\$32.18	\$22.66	\$54.85	\$30.85	\$22.66	\$53.51	\$32.00	\$22.66	\$54.66
2016_03	\$26.24	\$22.66	\$48.91	\$22.92	\$22.66	\$45.58	\$25.82	\$22.66	\$48.48
2016_04	\$12.58	\$22.66	\$35.24	\$16.11	\$22.66	\$38.77	\$13.05	\$22.66	\$35.71
2016_05	\$22.12	\$22.66	\$44.78	\$11.51	\$22.66	\$34.17	\$20.40	\$22.66	\$43.06
2016_06	\$23.63	\$22.66	\$46.29	\$11.36	\$22.66	\$34.02	\$21.95	\$22.66	\$44.61
2016_07	\$36.44	\$22.66	\$59.10	\$31.63	\$22.66	\$54.29	\$35.66	\$22.66	\$58.32
2016_08	\$39.08	\$22.66	\$61.74	\$34.51	\$22.66	\$57.17	\$38.49	\$22.66	\$61.15
2016_09	\$30.74	\$22.66	\$53.40	\$27.55	\$22.66	\$50.21	\$30.31	\$22.66	\$52.97
2016_10	\$27.19	\$22.66	\$49.86	\$27.46	\$22.66	\$50.13	\$27.24	\$22.66	\$49.90
2016_11	\$32.63	\$22.66	\$55.29	\$32.52	\$22.66	\$55.19	\$32.61	\$22.66	\$55.28
2016_12	\$34.05	\$22.66	\$56.71	\$33.84	\$22.66	\$56.51	\$34.02	\$22.66	\$56.69

**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2017_01	\$34.88	\$22.79	\$57.67	\$32.25	\$22.79	\$55.04	\$34.45	\$22.79	\$57.25
2017_02	\$34.50	\$22.79	\$57.29	\$32.62	\$22.79	\$55.41	\$34.23	\$22.79	\$57.02
2017_03	\$31.03	\$22.79	\$53.82	\$28.18	\$22.79	\$50.97	\$30.66	\$22.79	\$53.45
2017_04	\$12.03	\$22.79	\$34.83	\$2.28	\$22.79	\$25.08	\$10.41	\$22.79	\$33.20
2017_05	\$24.23	\$22.79	\$47.02	\$11.38	\$22.79	\$34.17	\$22.56	\$22.79	\$45.35
2017_06	\$25.67	\$22.79	\$48.47	\$13.25	\$22.79	\$36.04	\$23.97	\$22.79	\$46.76
2017_07	\$39.39	\$22.79	\$62.18	\$35.38	\$22.79	\$58.18	\$38.74	\$22.79	\$61.53
2017_08	\$42.37	\$22.79	\$65.16	\$37.22	\$22.79	\$60.01	\$41.70	\$22.79	\$64.50
2017_09	\$36.28	\$22.79	\$59.08	\$30.38	\$22.79	\$53.18	\$35.50	\$22.79	\$58.29
2017_10	\$31.12	\$22.79	\$53.91	\$31.72	\$22.79	\$54.52	\$31.22	\$22.79	\$54.01
2017_11	\$36.18	\$22.79	\$58.97	\$36.23	\$22.79	\$59.03	\$36.18	\$22.79	\$58.98
2017_12	\$36.58	\$22.79	\$59.37	\$36.24	\$22.79	\$59.03	\$36.52	\$22.79	\$59.32
2018_01	\$32.09	\$22.89	\$54.98	\$28.41	\$22.89	\$51.30	\$31.61	\$22.89	\$54.50
2018_02	\$36.12	\$22.89	\$59.01	\$35.75	\$22.89	\$58.64	\$36.07	\$22.89	\$58.96
2018_03	\$27.84	\$22.89	\$50.73	\$26.41	\$22.89	\$49.29	\$27.66	\$22.89	\$50.54
2018_04	\$23.43	\$22.89	\$46.32	\$26.45	\$22.89	\$49.34	\$23.94	\$22.89	\$46.82
2018_05	\$28.41	\$22.89	\$51.29	\$26.43	\$22.89	\$49.31	\$28.15	\$22.89	\$51.04
2018_06	\$27.49	\$22.89	\$50.38	\$14.98	\$22.89	\$37.87	\$25.78	\$22.89	\$48.67
2018_07	\$41.18	\$22.89	\$64.06	\$40.85	\$22.89	\$63.73	\$41.12	\$22.89	\$64.01
2018_08	\$46.94	\$22.89	\$69.83	\$40.28	\$22.89	\$63.17	\$46.08	\$22.89	\$68.97
2018_09	\$37.82	\$22.89	\$60.70	\$36.54	\$22.89	\$59.42	\$37.60	\$22.89	\$60.49
2018_10	\$34.24	\$22.89	\$57.13	\$37.73	\$22.89	\$60.61	\$34.69	\$22.89	\$57.58
2018_11	\$38.47	\$22.89	\$61.36	\$38.42	\$22.89	\$61.30	\$38.47	\$22.89	\$61.35
2018_12	\$40.12	\$22.89	\$63.01	\$40.09	\$22.89	\$62.98	\$40.12	\$22.89	\$63.00
2019_01	\$32.20	\$22.98	\$55.18	\$28.13	\$22.98	\$51.11	\$31.67	\$22.98	\$54.66
2019_02	\$39.23	\$22.98	\$62.21	\$29.48	\$22.98	\$52.47	\$37.84	\$22.98	\$60.82
2019_03	\$24.94	\$22.98	\$47.92	\$24.75	\$22.98	\$47.73	\$24.91	\$22.98	\$47.89
2019_04	\$23.96	\$22.98	\$46.94	\$24.31	\$22.98	\$47.29	\$24.00	\$22.98	\$46.99
2019_05	\$26.56	\$22.98	\$49.54	\$23.05	\$22.98	\$46.03	\$26.11	\$22.98	\$49.09
2019_06	\$28.79	\$22.98	\$51.77	\$21.19	\$22.98	\$44.17	\$27.49	\$22.98	\$50.48
2019_07	\$42.89	\$22.98	\$65.87	\$38.53	\$22.98	\$61.51	\$42.32	\$22.98	\$65.30
2019_08	\$47.26	\$22.98	\$70.24	\$40.23	\$22.98	\$63.21	\$46.35	\$22.98	\$69.34
2019_09	\$39.11	\$22.98	\$62.09	\$37.81	\$22.98	\$60.80	\$38.89	\$22.98	\$61.87
2019_10	\$36.51	\$22.98	\$59.49	\$39.23	\$22.98	\$62.21	\$36.86	\$22.98	\$59.84
2019_11	\$41.21	\$22.98	\$64.19	\$40.99	\$22.98	\$63.97	\$41.18	\$22.98	\$64.16
2019_12	\$42.72	\$22.98	\$65.71	\$42.67	\$22.98	\$65.66	\$42.72	\$22.98	\$65.70

**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
**Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)**

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2020_01	\$38.45	\$23.04	\$61.49	\$38.07	\$23.04	\$61.11	\$38.40	\$23.04	\$61.44
2020_02	\$28.92	\$23.04	\$51.95	\$24.35	\$23.04	\$47.38	\$28.29	\$23.04	\$51.32
2020_03	\$23.79	\$23.04	\$46.83	\$23.78	\$23.04	\$46.82	\$23.79	\$23.04	\$46.83
2020_04	\$23.01	\$23.04	\$46.05	\$22.78	\$23.04	\$45.82	\$22.98	\$23.04	\$46.02
2020_05	\$24.94	\$23.04	\$47.97	\$22.07	\$23.04	\$45.11	\$24.47	\$23.04	\$47.51
2020_06	\$29.82	\$23.04	\$52.86	\$23.96	\$23.04	\$46.99	\$29.02	\$23.04	\$52.06
2020_07	\$44.48	\$23.04	\$67.52	\$39.71	\$23.04	\$62.75	\$43.86	\$23.04	\$66.90
2020_08	\$48.88	\$23.04	\$71.91	\$41.54	\$23.04	\$64.57	\$47.69	\$23.04	\$70.73
2020_09	\$36.36	\$23.04	\$59.39	\$32.72	\$23.04	\$55.75	\$35.87	\$23.04	\$58.91
2020_10	\$37.76	\$23.04	\$60.79	\$40.47	\$23.04	\$63.51	\$38.11	\$23.04	\$61.14
2020_11	\$42.96	\$23.04	\$66.00	\$42.91	\$23.04	\$65.95	\$42.95	\$23.04	\$65.99
2020_12	\$45.27	\$23.04	\$68.31	\$45.29	\$23.04	\$68.33	\$45.28	\$23.04	\$68.31
2021_01	\$41.18	\$23.18	\$64.36	\$35.10	\$23.18	\$58.28	\$40.20	\$23.18	\$63.38
2021_02	\$31.58	\$23.18	\$54.76	\$26.25	\$23.18	\$49.43	\$30.82	\$23.18	\$54.00
2021_03	\$29.36	\$23.18	\$52.54	\$25.83	\$23.18	\$49.01	\$28.91	\$23.18	\$52.09
2021_04	\$25.48	\$23.18	\$48.66	\$25.50	\$23.18	\$48.69	\$25.48	\$23.18	\$48.67
2021_05	\$29.55	\$23.18	\$52.73	\$25.50	\$23.18	\$48.68	\$28.89	\$23.18	\$52.07
2021_06	\$31.90	\$23.18	\$55.08	\$26.35	\$23.18	\$49.53	\$31.14	\$23.18	\$54.32
2021_07	\$46.61	\$23.18	\$69.79	\$43.10	\$23.18	\$66.28	\$46.15	\$23.18	\$69.33
2021_08	\$51.39	\$23.18	\$74.57	\$43.55	\$23.18	\$66.74	\$50.13	\$23.18	\$73.31
2021_09	\$39.14	\$23.18	\$62.32	\$33.91	\$23.18	\$57.09	\$38.44	\$23.18	\$61.62
2021_10	\$39.76	\$23.18	\$62.94	\$41.62	\$23.18	\$64.80	\$40.06	\$23.18	\$63.24
2021_11	\$46.36	\$23.18	\$69.54	\$45.84	\$23.18	\$69.02	\$46.29	\$23.18	\$69.47
2021_12	\$48.40	\$23.18	\$71.58	\$48.31	\$23.18	\$71.49	\$48.39	\$23.18	\$71.57
2022_01	\$43.96	\$23.28	\$67.25	\$41.41	\$23.28	\$64.69	\$43.55	\$23.28	\$66.84
2022_02	\$47.40	\$23.28	\$70.69	\$40.85	\$23.28	\$64.13	\$46.47	\$23.28	\$69.75
2022_03	\$33.04	\$23.28	\$56.32	\$31.01	\$23.28	\$54.30	\$32.78	\$23.28	\$56.06
2022_04	\$29.33	\$23.28	\$52.61	\$29.73	\$23.28	\$53.01	\$29.38	\$23.28	\$52.67
2022_05	\$32.43	\$23.28	\$55.71	\$29.72	\$23.28	\$53.01	\$31.99	\$23.28	\$55.27
2022_06	\$35.21	\$23.28	\$58.49	\$24.08	\$23.28	\$47.36	\$33.68	\$23.28	\$56.97
2022_07	\$49.69	\$23.28	\$72.97	\$46.18	\$23.28	\$69.46	\$49.12	\$23.28	\$72.40
2022_08	\$55.52	\$23.28	\$78.81	\$47.16	\$23.28	\$70.45	\$54.44	\$23.28	\$77.73
2022_09	\$46.65	\$23.28	\$69.94	\$43.16	\$23.28	\$66.44	\$46.19	\$23.28	\$69.47
2022_10	\$42.84	\$23.28	\$66.13	\$43.25	\$23.28	\$66.53	\$42.91	\$23.28	\$66.19
2022_11	\$50.69	\$23.28	\$73.98	\$49.81	\$23.28	\$73.10	\$50.58	\$23.28	\$73.86
2022_12	\$52.57	\$23.28	\$75.85	\$52.37	\$23.28	\$75.65	\$52.54	\$23.28	\$75.83



**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
**Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)**

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2023_01	\$47.42	\$23.39	\$70.81	\$41.56	\$23.39	\$64.95	\$46.48	\$23.39	\$69.87
2023_02	\$51.10	\$23.39	\$74.49	\$46.08	\$23.39	\$69.47	\$50.38	\$23.39	\$73.77
2023_03	\$37.32	\$23.39	\$60.71	\$36.68	\$23.39	\$60.07	\$37.23	\$23.39	\$60.62
2023_04	\$31.46	\$23.39	\$54.85	\$31.06	\$23.39	\$54.45	\$31.39	\$23.39	\$54.79
2023_05	\$33.66	\$23.39	\$57.05	\$31.49	\$23.39	\$54.88	\$33.38	\$23.39	\$56.77
2023_06	\$36.90	\$23.39	\$60.30	\$31.88	\$23.39	\$55.27	\$36.22	\$23.39	\$59.61
2023_07	\$52.49	\$23.39	\$75.88	\$51.70	\$23.39	\$75.10	\$52.36	\$23.39	\$75.76
2023_08	\$57.90	\$23.39	\$81.29	\$53.15	\$23.39	\$76.55	\$57.29	\$23.39	\$80.68
2023_09	\$49.63	\$23.39	\$73.02	\$44.95	\$23.39	\$68.34	\$49.01	\$23.39	\$72.40
2023_10	\$44.50	\$23.39	\$67.89	\$44.71	\$23.39	\$68.10	\$44.53	\$23.39	\$67.92
2023_11	\$54.57	\$23.39	\$77.96	\$53.37	\$23.39	\$76.77	\$54.41	\$23.39	\$77.81
2023_12	\$56.62	\$23.39	\$80.01	\$55.68	\$23.39	\$79.07	\$56.47	\$23.39	\$79.86
2024_01	\$57.71	\$23.46	\$81.16	\$51.03	\$23.46	\$74.49	\$56.85	\$23.46	\$80.30
2024_02	\$54.53	\$23.46	\$77.99	\$46.31	\$23.46	\$69.77	\$53.40	\$23.46	\$76.85
2024_03	\$36.40	\$23.46	\$59.85	\$38.16	\$23.46	\$61.62	\$36.68	\$23.46	\$60.14
2024_04	\$29.96	\$23.46	\$53.42	\$29.78	\$23.46	\$53.24	\$29.94	\$23.46	\$53.39
2024_05	\$31.68	\$23.46	\$55.13	\$29.90	\$23.46	\$53.36	\$31.45	\$23.46	\$54.90
2024_06	\$37.27	\$23.46	\$60.73	\$33.54	\$23.46	\$57.00	\$36.64	\$23.46	\$60.09
2024_07	\$57.79	\$23.46	\$81.25	\$53.99	\$23.46	\$77.44	\$57.30	\$23.46	\$80.76
2024_08	\$67.88	\$23.46	\$91.34	\$52.74	\$23.46	\$76.20	\$65.93	\$23.46	\$89.39
2024_09	\$50.59	\$23.46	\$74.05	\$48.67	\$23.46	\$72.12	\$50.27	\$23.46	\$73.72
2024_10	\$45.81	\$23.46	\$69.27	\$46.04	\$23.46	\$69.50	\$45.84	\$23.46	\$69.30
2024_11	\$58.08	\$23.46	\$81.54	\$57.11	\$23.46	\$80.56	\$57.95	\$23.46	\$81.41
2024_12	\$60.26	\$23.46	\$83.71	\$59.94	\$23.46	\$83.40	\$60.21	\$23.46	\$83.66
2025_01	\$62.35	\$23.62	\$85.97	\$62.47	\$23.62	\$86.09	\$62.37	\$23.62	\$85.98
2025_02	\$58.44	\$23.62	\$82.05	\$46.84	\$23.62	\$70.46	\$56.78	\$23.62	\$80.40
2025_03	\$43.25	\$23.62	\$66.86	\$39.72	\$23.62	\$63.33	\$42.68	\$23.62	\$66.29
2025_04	\$30.21	\$23.62	\$53.82	\$30.05	\$23.62	\$53.66	\$30.19	\$23.62	\$53.80
2025_05	\$35.35	\$23.62	\$58.96	\$36.74	\$23.62	\$60.36	\$35.53	\$23.62	\$59.14
2025_06	\$39.61	\$23.62	\$63.23	\$34.80	\$23.62	\$58.41	\$38.79	\$23.62	\$62.41
2025_07	\$62.80	\$23.62	\$86.41	\$54.60	\$23.62	\$78.21	\$61.73	\$23.62	\$85.35
2025_08	\$72.33	\$23.62	\$95.95	\$55.00	\$23.62	\$78.62	\$69.54	\$23.62	\$93.15
2025_09	\$53.02	\$23.62	\$76.64	\$48.90	\$23.62	\$72.51	\$52.47	\$23.62	\$76.09
2025_10	\$47.53	\$23.62	\$71.14	\$47.61	\$23.62	\$71.22	\$47.54	\$23.62	\$71.15
2025_11	\$61.60	\$23.62	\$85.21	\$61.16	\$23.62	\$84.77	\$61.52	\$23.62	\$85.14
2025_12	\$63.98	\$23.62	\$87.59	\$63.21	\$23.62	\$86.83	\$63.88	\$23.62	\$87.49

**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
**Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)**

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2026_01	\$64.99	\$23.73	\$88.72	\$65.66	\$23.73	\$89.39	\$65.08	\$23.73	\$88.81
2026_02	\$67.66	\$23.73	\$91.39	\$62.46	\$23.73	\$86.19	\$66.92	\$23.73	\$90.65
2026_03	\$39.33	\$23.73	\$63.06	\$33.03	\$23.73	\$56.77	\$38.32	\$23.73	\$62.05
2026_04	\$31.17	\$23.73	\$54.90	\$29.67	\$23.73	\$53.40	\$30.97	\$23.73	\$54.70
2026_05	\$36.66	\$23.73	\$60.39	\$41.75	\$23.73	\$65.48	\$37.49	\$23.73	\$61.22
2026_06	\$40.70	\$23.73	\$64.43	\$35.82	\$23.73	\$59.55	\$40.03	\$23.73	\$63.77
2026_07	\$64.89	\$23.73	\$88.62	\$57.73	\$23.73	\$81.46	\$63.96	\$23.73	\$87.69
2026_08	\$71.85	\$23.73	\$95.58	\$58.62	\$23.73	\$82.35	\$69.72	\$23.73	\$93.45
2026_09	\$57.69	\$23.73	\$81.42	\$52.88	\$23.73	\$76.61	\$57.05	\$23.73	\$80.78
2026_10	\$49.10	\$23.73	\$72.83	\$49.21	\$23.73	\$72.94	\$49.12	\$23.73	\$72.85
2026_11	\$65.21	\$23.73	\$88.94	\$63.90	\$23.73	\$87.64	\$64.99	\$23.73	\$88.72
2026_12	\$69.11	\$23.73	\$92.84	\$67.51	\$23.73	\$91.24	\$68.90	\$23.73	\$92.63
2027_01	\$67.74	\$23.85	\$91.60	\$60.60	\$23.85	\$84.45	\$66.59	\$23.85	\$90.44
2027_02	\$70.32	\$23.85	\$94.17	\$63.70	\$23.85	\$87.55	\$69.38	\$23.85	\$93.23
2027_03	\$43.02	\$23.85	\$66.88	\$43.36	\$23.85	\$67.21	\$43.07	\$23.85	\$66.92
2027_04	\$35.05	\$23.85	\$58.91	\$36.86	\$23.85	\$60.71	\$35.29	\$23.85	\$59.15
2027_05	\$37.27	\$23.85	\$61.13	\$40.53	\$23.85	\$64.38	\$37.80	\$23.85	\$61.65
2027_06	\$42.68	\$23.85	\$66.53	\$37.57	\$23.85	\$61.42	\$41.98	\$23.85	\$65.83
2027_07	\$67.87	\$23.85	\$91.72	\$57.79	\$23.85	\$81.64	\$66.56	\$23.85	\$90.41
2027_08	\$75.71	\$23.85	\$99.56	\$62.14	\$23.85	\$85.99	\$73.52	\$23.85	\$97.37
2027_09	\$60.58	\$23.85	\$84.43	\$55.16	\$23.85	\$79.01	\$59.85	\$23.85	\$83.71
2027_10	\$50.82	\$23.85	\$74.67	\$50.86	\$23.85	\$74.72	\$50.83	\$23.85	\$74.68
2027_11	\$68.13	\$23.85	\$91.98	\$67.67	\$23.85	\$91.52	\$68.07	\$23.85	\$91.92
2027_12	\$73.05	\$23.85	\$96.91	\$70.50	\$23.85	\$94.35	\$72.72	\$23.85	\$96.58
2028_01	\$71.90	\$23.93	\$95.83	\$61.30	\$23.93	\$85.23	\$70.19	\$23.93	\$94.12
2028_02	\$75.22	\$23.93	\$99.15	\$69.06	\$23.93	\$92.99	\$74.37	\$23.93	\$98.30
2028_03	\$40.82	\$23.93	\$64.75	\$42.70	\$23.93	\$66.63	\$41.06	\$23.93	\$64.99
2028_04	\$34.84	\$23.93	\$58.77	\$37.97	\$23.93	\$61.90	\$35.36	\$23.93	\$59.29
2028_05	\$42.40	\$23.93	\$66.33	\$47.62	\$23.93	\$71.55	\$43.08	\$23.93	\$67.01
2028_06	\$43.31	\$23.93	\$67.24	\$38.00	\$23.93	\$61.93	\$42.58	\$23.93	\$66.51
2028_07	\$72.27	\$23.93	\$96.20	\$62.25	\$23.93	\$86.18	\$70.64	\$23.93	\$94.57
2028_08	\$78.01	\$23.93	\$101.94	\$64.69	\$23.93	\$88.62	\$76.29	\$23.93	\$100.22
2028_09	\$63.56	\$23.93	\$87.49	\$59.57	\$23.93	\$83.51	\$63.03	\$23.93	\$86.96
2028_10	\$52.39	\$23.93	\$76.32	\$52.39	\$23.93	\$76.32	\$52.39	\$23.93	\$76.32
2028_11	\$72.48	\$23.93	\$96.41	\$71.68	\$23.93	\$95.61	\$72.37	\$23.93	\$96.30
2028_12	\$77.69	\$23.93	\$101.62	\$75.04	\$23.93	\$98.97	\$77.26	\$23.93	\$101.19

**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
**Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)**

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2029_01	\$74.04	\$24.10	\$98.14	\$64.52	\$24.10	\$88.62	\$72.81	\$24.10	\$96.92
2029_02	\$78.93	\$24.10	\$103.03	\$71.67	\$24.10	\$95.77	\$77.89	\$24.10	\$102.00
2029_03	\$49.47	\$24.10	\$73.57	\$42.76	\$24.10	\$66.87	\$48.60	\$24.10	\$72.71
2029_04	\$34.12	\$24.10	\$58.23	\$36.68	\$24.10	\$60.79	\$34.55	\$24.10	\$58.65
2029_05	\$46.00	\$24.10	\$70.11	\$48.93	\$24.10	\$73.03	\$46.38	\$24.10	\$70.49
2029_06	\$44.76	\$24.10	\$68.87	\$37.33	\$24.10	\$61.43	\$43.75	\$24.10	\$67.85
2029_07	\$77.61	\$24.10	\$101.71	\$67.69	\$24.10	\$91.79	\$76.00	\$24.10	\$100.10
2029_08	\$84.12	\$24.10	\$108.22	\$66.95	\$24.10	\$91.05	\$81.90	\$24.10	\$106.01
2029_09	\$68.44	\$24.10	\$92.55	\$62.59	\$24.10	\$86.70	\$67.47	\$24.10	\$91.57
2029_10	\$54.23	\$24.10	\$78.33	\$54.20	\$24.10	\$78.30	\$54.22	\$24.10	\$78.33
2029_11	\$76.04	\$24.10	\$100.15	\$75.29	\$24.10	\$99.39	\$75.94	\$24.10	\$100.05
2029_12	\$81.88	\$24.10	\$105.99	\$78.67	\$24.10	\$102.78	\$81.36	\$24.10	\$105.47
2030_01	\$79.03	\$24.24	\$103.26	\$72.66	\$24.24	\$96.89	\$78.20	\$24.24	\$102.44
2030_02	\$81.27	\$24.24	\$105.51	\$74.10	\$24.24	\$98.34	\$80.25	\$24.24	\$104.48
2030_03	\$46.11	\$24.24	\$70.35	\$47.01	\$24.24	\$71.24	\$46.26	\$24.24	\$70.49
2030_04	\$34.03	\$24.24	\$58.27	\$35.38	\$24.24	\$59.61	\$34.21	\$24.24	\$58.45
2030_05	\$40.11	\$24.24	\$64.35	\$36.52	\$24.24	\$60.76	\$39.65	\$24.24	\$63.88
2030_06	\$45.81	\$24.24	\$70.05	\$43.60	\$24.24	\$67.84	\$45.44	\$24.24	\$69.67
2030_07	\$84.09	\$24.24	\$108.32	\$73.41	\$24.24	\$97.65	\$82.70	\$24.24	\$106.94
2030_08	\$86.46	\$24.24	\$110.69	\$69.52	\$24.24	\$93.76	\$84.27	\$24.24	\$108.51
2030_09	\$71.75	\$24.24	\$95.98	\$65.96	\$24.24	\$90.20	\$70.78	\$24.24	\$95.02
2030_10	\$56.58	\$24.24	\$80.82	\$56.50	\$24.24	\$80.73	\$56.57	\$24.24	\$80.80
2030_11	\$79.91	\$24.24	\$104.15	\$78.13	\$24.24	\$102.37	\$79.68	\$24.24	\$103.91
2030_12	\$86.83	\$24.24	\$111.07	\$82.74	\$24.24	\$106.97	\$86.17	\$24.24	\$110.41
2031_01	\$87.81	\$24.37	\$112.18	\$82.64	\$24.37	\$107.01	\$87.14	\$24.37	\$111.51
2031_02	\$86.88	\$24.37	\$111.25	\$78.01	\$24.37	\$102.38	\$85.61	\$24.37	\$109.99
2031_03	\$69.79	\$24.37	\$94.16	\$58.68	\$24.37	\$83.05	\$67.99	\$24.37	\$92.37
2031_04	\$44.61	\$24.37	\$68.98	\$39.89	\$24.37	\$64.26	\$43.98	\$24.37	\$68.35
2031_05	\$65.47	\$24.37	\$89.85	\$59.33	\$24.37	\$83.70	\$64.67	\$24.37	\$89.05
2031_06	\$60.08	\$24.37	\$84.45	\$58.73	\$24.37	\$83.10	\$59.85	\$24.37	\$84.22
2031_07	\$95.65	\$24.37	\$120.02	\$82.17	\$24.37	\$106.54	\$93.90	\$24.37	\$118.27
2031_08	\$91.64	\$24.37	\$116.01	\$74.34	\$24.37	\$98.71	\$88.85	\$24.37	\$113.22
2031_09	\$82.92	\$24.37	\$107.29	\$77.98	\$24.37	\$102.36	\$82.26	\$24.37	\$106.63
2031_10	\$78.07	\$24.37	\$102.44	\$61.95	\$24.37	\$86.32	\$75.99	\$24.37	\$100.36
2031_11	\$90.80	\$24.37	\$115.17	\$89.77	\$24.37	\$114.14	\$90.63	\$24.37	\$115.00
2031_12	\$100.33	\$24.37	\$124.70	\$95.12	\$24.37	\$119.49	\$99.66	\$24.37	\$124.03



**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IRP) CONTRACT PRICING**  
Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2032_01	\$92.19	\$24.46	\$116.66	\$87.15	\$24.46	\$111.61	\$91.54	\$24.46	\$116.01
2032_02	\$91.50	\$24.46	\$115.96	\$77.01	\$24.46	\$101.48	\$89.00	\$24.46	\$113.46
2032_03	\$74.44	\$24.46	\$98.90	\$63.54	\$24.46	\$88.00	\$73.03	\$24.46	\$97.50
2032_04	\$52.41	\$24.46	\$76.87	\$50.20	\$24.46	\$74.67	\$52.11	\$24.46	\$76.58
2032_05	\$68.72	\$24.46	\$93.18	\$66.19	\$24.46	\$90.66	\$68.31	\$24.46	\$92.77
2032_06	\$64.18	\$24.46	\$88.65	\$63.16	\$24.46	\$87.62	\$64.04	\$24.46	\$88.51
2032_07	\$104.04	\$24.46	\$128.50	\$87.99	\$24.46	\$112.46	\$101.95	\$24.46	\$126.42
2032_08	\$97.63	\$24.46	\$122.10	\$80.00	\$24.46	\$104.47	\$94.79	\$24.46	\$119.25
2032_09	\$86.76	\$24.46	\$111.23	\$83.20	\$24.46	\$107.66	\$86.29	\$24.46	\$110.75
2032_10	\$85.61	\$24.46	\$110.07	\$69.86	\$24.46	\$94.33	\$83.07	\$24.46	\$107.53
2032_11	\$99.81	\$24.46	\$124.28	\$96.32	\$24.46	\$120.79	\$99.35	\$24.46	\$123.81
2032_12	\$102.15	\$24.46	\$126.61	\$97.18	\$24.46	\$121.65	\$101.51	\$24.46	\$125.97
2033_01	\$90.40	\$24.65	\$119.61	\$84.29	\$24.65	\$114.41	\$89.61	\$24.65	\$118.94
2033_02	\$87.43	\$24.65	\$118.90	\$74.31	\$24.65	\$103.98	\$85.17	\$24.65	\$116.32
2033_03	\$78.93	\$24.65	\$101.33	\$69.06	\$24.65	\$90.10	\$77.66	\$24.65	\$99.88
2033_04	\$61.46	\$24.65	\$78.63	\$56.17	\$24.65	\$76.36	\$60.76	\$24.65	\$78.33
2033_05	\$71.40	\$24.65	\$95.44	\$69.11	\$24.65	\$92.83	\$71.03	\$24.65	\$95.01
2033_06	\$68.55	\$24.65	\$90.76	\$66.73	\$24.65	\$89.71	\$68.30	\$24.65	\$90.62
2033_07	\$126.85	\$24.65	\$131.81	\$103.80	\$24.65	\$115.29	\$123.85	\$24.65	\$129.67
2033_08	\$112.80	\$24.65	\$125.22	\$85.97	\$24.65	\$107.06	\$108.47	\$24.65	\$122.29
2033_09	\$89.46	\$24.65	\$114.02	\$86.55	\$24.65	\$110.35	\$89.07	\$24.65	\$113.53
2033_10	\$97.46	\$24.65	\$112.83	\$86.81	\$24.65	\$96.61	\$95.74	\$24.65	\$110.21
2033_11	\$102.63	\$24.65	\$127.46	\$98.84	\$24.65	\$123.87	\$102.12	\$24.65	\$126.98
2033_12	\$105.85	\$24.65	\$129.87	\$99.99	\$24.65	\$124.75	\$105.10	\$24.65	\$129.21
2034_01	\$93.11	\$24.80	\$122.61	\$86.82	\$24.80	\$117.26	\$92.30	\$24.80	\$121.92
2034_02	\$90.06	\$24.80	\$121.87	\$76.54	\$24.80	\$106.51	\$87.73	\$24.80	\$119.22
2034_03	\$81.30	\$24.80	\$103.78	\$71.14	\$24.80	\$92.21	\$79.99	\$24.80	\$102.28
2034_04	\$63.31	\$24.80	\$80.40	\$57.86	\$24.80	\$78.06	\$62.58	\$24.80	\$80.09
2034_05	\$73.55	\$24.80	\$97.71	\$71.19	\$24.80	\$95.03	\$73.16	\$24.80	\$97.27
2034_06	\$70.61	\$24.80	\$92.89	\$68.73	\$24.80	\$91.80	\$70.35	\$24.80	\$92.74
2034_07	\$130.65	\$24.80	\$135.18	\$106.91	\$24.80	\$118.15	\$127.57	\$24.80	\$132.96
2034_08	\$116.19	\$24.80	\$128.38	\$88.54	\$24.80	\$109.68	\$111.73	\$24.80	\$125.36
2034_09	\$92.15	\$24.80	\$116.85	\$89.15	\$24.80	\$113.07	\$91.75	\$24.80	\$116.34
2034_10	\$100.39	\$24.80	\$115.62	\$89.42	\$24.80	\$98.92	\$98.62	\$24.80	\$112.93
2034_11	\$105.70	\$24.80	\$130.70	\$101.80	\$24.80	\$126.99	\$105.18	\$24.80	\$130.20
2034_12	\$109.03	\$24.80	\$133.17	\$102.99	\$24.80	\$127.90	\$108.25	\$24.80	\$132.49

**2013 INCREMENTAL INTEGRATED RESOURCE PLAN (IIRP) CONTRACT PRICING**  
**Grandview PV Solar Two 80 (MWac) Single Axis Tracker (originally called Black Sands Solar)**

Date	HL Pricing - Energy (Nominal \$/MWh)	HL Pricing - Capacity (Nominal \$/MWh)	HL Pricing - Energy + Capacity (Nominal \$/MWh)	LL Pricing - Energy (Nominal \$/MWh)	LL Pricing - Capacity (Nominal \$/MWh)	LL Pricing - Energy + Capacity (Nominal \$/MWh)	AVG Pricing - Energy (Nominal \$/MWh)	AVG Pricing - Capacity (Nominal \$/MWh)	AVG Pricing - Energy + Capacity (Nominal \$/MWh)
2035_01	\$95.90	\$24.95	\$125.70	\$89.42	\$24.95	\$120.18	\$95.07	\$24.95	\$124.98
2035_02	\$92.76	\$24.95	\$124.94	\$78.84	\$24.95	\$109.11	\$90.36	\$24.95	\$122.21
2035_03	\$83.74	\$24.95	\$106.30	\$73.27	\$24.95	\$94.38	\$82.39	\$24.95	\$104.76
2035_04	\$65.21	\$24.95	\$82.22	\$59.59	\$24.95	\$79.81	\$64.46	\$24.95	\$81.90
2035_05	\$75.75	\$24.95	\$100.05	\$73.32	\$24.95	\$97.29	\$75.36	\$24.95	\$99.60
2035_06	\$72.73	\$24.95	\$95.09	\$70.79	\$24.95	\$93.97	\$72.46	\$24.95	\$94.94
2035_07	\$134.57	\$24.95	\$138.64	\$110.12	\$24.95	\$121.11	\$131.40	\$24.95	\$136.36
2035_08	\$119.67	\$24.95	\$131.64	\$91.20	\$24.95	\$112.38	\$115.08	\$24.95	\$128.53
2035_09	\$94.91	\$24.95	\$119.76	\$91.82	\$24.95	\$115.87	\$94.50	\$24.95	\$119.24
2035_10	\$103.40	\$24.95	\$118.50	\$92.10	\$24.95	\$101.29	\$101.58	\$24.95	\$115.72
2035_11	\$108.88	\$24.95	\$134.02	\$104.85	\$24.95	\$130.21	\$108.34	\$24.95	\$133.52
2035_12	\$112.30	\$24.95	\$136.57	\$106.08	\$24.95	\$131.15	\$111.50	\$24.95	\$135.87
2036_01	\$98.78	\$25.06	\$128.83	\$92.10	\$25.06	\$123.15	\$97.92	\$25.06	\$128.09
2036_02	\$95.54	\$25.06	\$128.05	\$81.20	\$25.06	\$111.74	\$93.07	\$25.06	\$125.23
2036_03	\$86.25	\$25.06	\$108.85	\$75.47	\$25.06	\$96.58	\$84.86	\$25.06	\$107.26
2036_04	\$67.16	\$25.06	\$84.05	\$61.38	\$25.06	\$81.57	\$66.39	\$25.06	\$83.72
2036_05	\$78.03	\$25.06	\$102.41	\$75.52	\$25.06	\$99.57	\$77.62	\$25.06	\$101.95
2036_06	\$74.91	\$25.06	\$97.30	\$72.92	\$25.06	\$96.15	\$74.64	\$25.06	\$97.14
2036_07	\$138.61	\$25.06	\$142.16	\$113.42	\$25.06	\$124.10	\$135.34	\$25.06	\$139.81
2036_08	\$123.26	\$25.06	\$134.95	\$93.94	\$25.06	\$115.11	\$118.53	\$25.06	\$131.75
2036_09	\$97.76	\$25.06	\$122.72	\$94.57	\$25.06	\$118.70	\$97.33	\$25.06	\$122.18
2036_10	\$106.50	\$25.06	\$121.42	\$94.86	\$25.06	\$103.69	\$104.62	\$25.06	\$118.56
2036_11	\$112.14	\$25.06	\$137.41	\$108.00	\$25.06	\$133.48	\$111.59	\$25.06	\$136.88
2036_12	\$115.67	\$25.06	\$140.03	\$109.26	\$25.06	\$134.45	\$114.84	\$25.06	\$139.31

**Difference Between Idaho Power and Staff Pricing Results**  
Grand View PV Solar Two 80 (MWac) Single Axis Tracker

Online Jan 2016 (20 Year Indicative Weighted Levelized \$/MWh in 2014 \$)

Category	Idaho Power Results			Staff Results			Difference		
	HL	LL	Average	HL	LL	Average	HL	LL	Average
Avoided Cost of Energy (from AURORA)	\$50.66	\$45.66	\$49.94	\$47.79	\$42.99	\$47.10	\$2.87	\$2.67	\$2.84
Avoided Cost of Capacity (from Excel)	\$23.47	\$23.46	\$23.47	\$23.47	\$23.46	\$23.47	\$0.00	\$0.00	\$0.00
Avoided Cost of Energy & Capacity	\$74.13	\$69.12	\$73.41	\$71.26	\$66.45	\$70.57	\$2.87	\$2.67	\$2.84

20 Year Contract Obligation (Nominal \$)

Category	Idaho Power Results			Staff Results			Difference		
	HL	LL	Average	HL	LL	Average	HL	LL	Average
Online Jan 2016	\$273,105,670	\$42,470,777	\$315,576,447	\$261,906,463	\$40,897,525	\$302,803,989	\$11,199,207	\$1,573,252	\$12,772,459

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 31<sup>ST</sup> DAY OF OCTOBER 2014, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. IPC-E-14-19, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

DONOVAN E. WALKER  
REGULATORY DOCKETS  
IDAHO POWER COMPANY  
P.O. BOX 70  
BOISE, ID 83707  
E-MAIL: [dwalker@idahopower.com](mailto:dwalker@idahopower.com)  
[dockets@idahopower.com](mailto:dockets@idahopower.com)

RANDY C. ALLPHIN  
ENERGY CONTRACT ADMINISTRATOR  
IDAHO POWER COMPANY  
PO BOX 70  
BOISE ID 83707-0070  
E-MAIL: [rallphin@idahopower.com](mailto:rallphin@idahopower.com)

  
\_\_\_\_\_  
SECRETARY

CERTIFICATE OF SERVICE