

July 27, 2011

Oregon Public Utility Commission  
Attn: Filing Center  
550 Capitol Street NE #215  
P.O. Box 2148  
Salem, OR 97308  
*Sent via express mail and electronic filing*

Re: Docket UM1538 Request for waiver of 12-month Solar System Installation Requirement Pursuant to OAR 860-084-0210(1)

Dear Oregon Public Utility Commission,

PacifiCorp customer Rogue Valley Sewer System (RVSS), an Oregon Municipal Corporation, has been working with Kigin Energy Partners (KEP) for the past ten months to develop a 96 kW third-party owned solar project at a regional water pumping station in Central Point, Oregon. The solar project is being developed in conjunction with PacifiCorp's Oregon Solar Incentive Program (OSIP) for which KEP acquired a reservation on behalf of RVSS during the October 2010 allocation period. Due to unforeseen circumstances at the permit-planning level of the development process, RVSS and KEP respectfully request a waiver of the 12-month installation requirement and a four month extension in which to install the solar system. If granted this extension, the RVSS solar project will be able to be completed as all major milestones except for permitting have been successfully accomplished.

#### Background

Since early 2010, RVSS has been working with various third-party financing sources in order to install a solar system at the Bob Dunn Regional Pumping Station (BDRPS) located on Kirtland Road in Central Point Oregon. For an initial six month period, RVSS worked with a third-party investor who intended to install, own, and maintain a solar array at BDRPS in return for participating in Oregon's Business Energy Tax Credit (BETC) program. However, following the significant changes that occurred to the BETC program, the initial third-party investor concluded its negotiations with RVSS and chose to pursue other development opportunities outside of Oregon.

With the introduction of the OSIP program, KEP approached RVSS to collaborate on the development of a medium-sized solar system at the BDRPS of up to 100 kW in size. In return for hosting the solar

facility, RVSS would receive a portion of solar system's energy production free of charge and the remaining portion of the energy would be provided to RVSS at a discounted rate to what it would otherwise pay its energy provider, PacifiCorp.

On October 1, 2010 KEP secured a 100 kW incentive allocation for RVSS. Once the incentive allocation was confirmed by PacifiCorp, the parties began working with a solar integrator, Advanced Energy Systems (AES), to develop a system design for the RVSS site. Through the solar system design process, KEP and RVSS discovered that the footprint of the solar array would cover an area of the RVSS property that contained underground pipelines which may need to be serviced during the next twenty years and could necessitate the periodic removal of the solar array. Following this discovery, KEP approached the owner of an adjacent parcel of property, Pacific Pipeline Inc. (PPI), to lease a ½ acre of land to site that portion of the RVSS solar project that could not be situated on top of the underground pipelines at the BDRPS location. On November, 17, 2010 PPI and KEP reached an agreement in principle for the long term lease of the additional land required to site the RVSS solar array. Concurrent with this activity, RVSS contacted the Jackson County Planning Department (JCPD) and inquired as to permitting procedures to confirm that a solar array could be sited on each parcel of property.

Subsequent to arranging for the adjoining parcel of property, AES finalized its system design<sup>1</sup> for the RVSS project which allowed for a 96 kW dual-axis tracking solar array to be constructed across both parcels of land. Due to the dual-axis design, the solar array would generate nearly 190,000 kWh of electricity during its initial production year – offsetting approximately 27% of the electrical usage at the BDRPS site.

On December 5, 2010, RVSS filed its Volumetric Incentive Application and Interconnection Agreement with PacifiCorp<sup>2</sup>. In parallel with this activity, KEP and RVSS began negotiation of a Power Purchase Agreement (PPA) for which RVSS would purchase the power generated by the solar array during an initial twenty-year term. Among the features of the PPA, RVSS would receive a significant economic value for hosting the solar facility as well as maintain a series of options to purchase the solar array at

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<sup>1</sup> A copy of which is included in this filing.

<sup>2</sup> *ibid.*

various points during the initial term of the agreement. KEP and RVSS concluded their negotiations in mid-January and countersigned the PPA on January 19, 2011<sup>3</sup>.

Subsequent to the signing of the PPA, KEP forwarded a Property Lease Agreement (Lease) to PPI for its review on January 24, 2011. Due to other business activities, the adjoining land owners were unable to provide comments to the Lease until March 15, 2011. Following receipt of those comments, KEP re-drafted the Lease and forwarded a new copy for review on April 4, 2011. Negotiations on the Lease were further delayed by the absence of the property owners until mid-May, at which time the majority of outstanding items to be negotiated were agreed upon and a draft to be executed was prepared on May 25, 2011<sup>4</sup>.

Beginning in early March 2011 KEP began the process of contacting commercial lenders to finance a portion of the solar array at the BDRPS location. After discussing the project with a number of regional and national lenders during the months of March and April 2011, Umpqua Bank (Umpqua) agreed to provide commercial financing on May 6, 2011 (subject to due diligence and documentation). On May 27, 2011 Umpqua formalized its offer to KEP with an initial lending commitment letter that was further negotiated and re-issued on June 13, 2011. The principal officer of KEP countersigned the funding commitment letter and paid the initial financing fees on June 19, 2011<sup>5</sup>.

Concurrent with finalizing its financing arrangements for the solar project, KEP began the process of obtaining insurance coverage for construction and subsequent operation of the solar facility. On June 16, 2011, KEP received a proposal from the insurance firm Walsh Carter & Associates (WCA) for the insurance of the project consistent with the terms required by OSIP. A copy of WCA's proposal will be included in the paper filing of this document along with a confidential electronic copy.

In addition to its financing documents and insurance arrangements, KEP began negotiating with AES the Engineering Procurement and Construction Agreement (EPC) for the design and installation of the solar project. As negotiations on the EPC neared completion, KEP re-contacted the Jackson County Planning Department (JCPD) to discuss in more detail the timing of the permitting for the solar facility. At this point in the project development, KEP was able to provide JCPD with a detailed system design and site

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<sup>3</sup> A copy and confidential electronic version will be submitted in conjunction with the paper filing of this request.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

diagram of the project. Unfortunately, based on a more detailed review of the project, JCPD issued a Zoning Information Sheet (ZIS) on July 5, 2011 that identified additional permitting requirements that applied to that portion of the project that would be situated on the adjacent PPI property. Specifically, the ZIS<sup>6</sup> indicated that the permitting process would be subject to a Type 2 planning review process. This conclusion was contrary to the prior planning determination which did not take into account that the solar array that was situated on the PPI property would be serving the RVSS parcel of land. As a result of the interaction of the solar array between the two parcels of property, the Type 2 planning review was deemed to be required due to the open space reserve classification of the PPI property. Because the PPI property was determined to be a Type 2 review, an extended permitting process of up to five months in time may be required in order to accommodate a public comment period on the project. As a result of this extended permitting period, the entire project would be pushed beyond the 12-month solar installation requirement as required by OAR 860-084-0210(1).

#### Request for Waiver

In conjunction with OAR 860-084-000(3), we respectfully request that the Commission consider waiving the 12-month requirement for the RVSS solar project and allow PacifiCorp to provide an extension of four months from the original OSIP deadline of October 4, 2011. This extension will allow us to work with the Jackson County Planning Department to obtain the proper permits for both the RVSS and PPI site locations and allow installation of the solar project.

Absent the determination that the adjacent parcel of property was subject to a Type 2 planning review, the RVSS solar project would have been installed by the OSIP deadline of October 4, 2011. KEP and RVSS have diligently pursued the steps required to construct and install the solar facility and with the exception of the project permits, have completed all of the necessary steps to move forward including:

- the negotiation and execution of a power purchase agreement;
- arranging for an additional parcel of land to accommodate the solar array when complications arose at the primary location site;
- obtaining commercial financing and insurance for the project; and
- negotiation of the primary terms of an EPC Agreement.

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<sup>6</sup> A copy of the JCPD ZIS is attached to this filing

Please let us know if we may provide you with any additional information to support your decision making in this matter. In the interim, we appreciate the Commission's effort to review this request and the time that Staff has afforded to us during our prior discussions on this topic.

Respectfully submitted,

/s/

Timothy Cowart  
Kigin Energy Partners

Attachments in this Electronic Filing

Solar System Design  
OSIP Application & Interconnection Agreement  
Jackson County Zoning Information Sheet

Confidential Attachments to Be Submitted With Paper Filing

Power Purchase Agreement between RVSS & KEP  
Lease agreement between KEP and PPI Owners  
Financing Commitment Letter between KEP and Umpqua Bank  
Insurance Proposal between KEP and WCA



This design was created using solar energy.

SYSTEM CHARACTERISTICS	
(384) SolarWorld 250 Watt Modules	
Annual Production	188,520 kWh
STC Rating	96,000 Watts
(16) SMA 6000 Inverters	
(32) Strings of (12) Modules	
Modules on Dual-Axis Trackers	
PVWF: 1963.75	



DRAFT #4 BY: TBB  
Revised 11/11/10

## Rogue Valley Sewer Services

96 kW System  
3655 Kirtland Rd  
Central Point, OR 97502

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CCB# 160523  
[www.aesrenew.com](http://www.aesrenew.com)

Oregon Solar Incentive Program  
Interconnection Application  
4 Pages

**EXHIBIT A**  
**APPLICATION FOR SOLAR INCENTIVE PROGRAM INTERCONNECTION**  
**LEVEL 1, 2 OR 3 INTERCONNECTION APPLICATION**  
**CAPACITY OF 100 KW OR LESS**

**Section 1: To Be Completed By Pacific Power**

Customer-Generator Name: Rogue Valley Sewer Services  
 Level: 2 Pacific Power Request No: 5480716  
 Application Received Date: \_\_\_\_\_  
 Application fee: \$150.00 Date Paid \_\_\_\_\_

**Section 2: To Be Completed By Applicant**

**A. Applicant Information**

Name: Rogue Valley Sewer Service  
 Pacific Power Customer Account No: 31915241-001 9  
 Service Address: 3655 Kirtland Road  
 City: Central Point State: OR Zip Code: 97502  
 Mailing Address (if different from above): P.O. Box 3130  
 City: Central Point State: OR Zip Code: 97502  
 Daytime Phone: (541) 779-4144 Cell Phone: (    ) \_\_\_\_\_  
 Email: ctappert@rvss.us

**B. System Information**

Generation Nameplate Capacity of Panels: 96 kW (Combine DC total)  
 Inverter Manufacture: SMA Model: SB6000US Number of Inverters: 16 Rating: 7.5 kW  
 Manufacturer Nameplate Inverter Total Capacity Rating: 120 kW  
 Inverter(s):  Single Phase  Three Phase  Multiple Single Phase Connected on Poly-phase (three phase) system – (Attach Inverter and Panel Technical Specifications Sheets)  
 Type of Service:  Single Phase  Three Phase  
 If Three Phase Transformer, Indicate Type:  Wye  Delta  
 Please note: A disconnect switch is not required for an inverter-based facility for services of 600 volts or less with a maximum rating as follows:  
     Service Type—Maximum Facility Size (kW)  
     240 Volts, Single-Phase, 3 Wire—7.2 kW  
     120/208 Volts, 3-Phase, 4 Wire—10.5 kW  
     120/240 Volts, 3-Phase 4 Wire—12.5 kW  
     277/480, 3-Phase 4 Wire—25.0 kW  
 Manual disconnect required:  Yes  No  
 System location (show meter, production meter socket and disconnect switch in diagrams)  
 One-Line Diagram Attached:  Yes  No Site Plan Attached:  Yes  No  
 Installation Test Plan attached:  Yes  No  
 Other Information: \_\_\_\_\_  
 Anticipated Operational Date of Generation Facilities: 7/15/2011  
 (Pacific Power must be notified at least five (5) business days prior to starting operation.)  
 (A Pacific Power Engineer may contact you for additional information)



### C. Application Fees

Application Fees must be paid with Application for Interconnection.

Interconnection Level Requested (select one only):

- Level 1 (25 kW or less in most cases – submitting Level 1 may be moved to Level 2)
- Level 2 (Not more than 100 kW – submitting Level 2 may be moved to Level 3)
- Level 3 (Not more than 100 kW)

Level 1: No Fee

Level 2:

\$	50.00	Base
+ \$	100.00	\$1.00 x 100 kW of DC generation capacity
\$	150.00	TOTAL APPLICATION FEE

Level 3:

\$	100.00	Base
+ \$	_____	\$2.00 x _____ kW of DC generation capacity
\$	=====	TOTAL APPLICATION FEE

Pursuant to the Rules, Applicant is responsible for costs of any studies or required system upgrades.

### D. Production and Site Control

1. Annual System Production Estimate: 188,520 kWh

System applying for participation in the Oregon Solar Incentive Program must be sized to generate 90 percent or less than existing service's annual usage. If annual usage is unavailable, it will be estimated by Pacific Power based upon the rolling average of three years' usage by a similarly situated site. Annual kilowatt-hours (kWh) production estimate must use a forecasting methodology consistent with the methodologies used by the Energy Trust of Oregon. Information can be found at:

<http://energytrust.org/shared-resources/solar-calculator/>.

2. Applicant has legal right (e.g. through ownership, lease, or irrevocable license) to maintain the Eligible System.  Yes  No

### E. Additional Information

1. Systems must be installed by a qualified Energy Trust Trade Allies in good standing. A list of qualified Allies can be found at <http://energytrust.org/trade-ally/>.
2. An equipment package will be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing and certification laboratory, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable IEEE and UL 1741 standards in the Rule.
3. If the equipment package has been tested and listed as an integrated package, which includes a generator or other electric source, the equipment package will be deemed certified, and Pacific Power will not require any further design review, testing or additional information.
4. If the equipment package includes only the interface components (switchgears, inverters, or other interface devices), an interconnection applicant must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and consistent with the testing and listing specified for the package. If the generator or electric source being utilized with the equipment package is consistent with the testing and listing performed by the nationally recognized testing and certification laboratory, the equipment package will be deemed certified and Pacific Power will not require further design review, testing or additional equipment.
5. Customer-Generator must post signage indicating on-site generation in accordance with NEC 110.22 and 430.102. The signage must be permanent and located adjacent to the meter base, generation meters and disconnect switch noting "Parallel Generation on Site" and identifying the manual disconnect switch with the words "Manual Disconnect for Parallel Generation" and generation meters with "Generation Meter."

- The sign shall be metal or plastic engraved of sufficient durability to withstand the environment involved.
6. Pacific Power will not be responsible for the cost of determining the rating of equipment owned by the customer-generator or of equipment owned by other local customers.
  7. Customer-Generator may operate the eligible Facility temporarily for testing and obtaining inspection approval. Customer-Generator shall not operate the eligible Facility in continuous parallel without an executed Interconnection and Standard Contract, and approval from Pacific Power.
  8. Customer-generator will pay to Pacific Power at the time of application the applicable Application fee as set forth in 860-084-0280.
  9. An eligible facility must be equipped with metering equipment that can measure the flow of electricity in both directions, comply with ANSI C12.1 standards and OAR 860-023-0015. Pacific Power will install the required metering equipment at Pacific Power's expense.
  10. Production Meter Socket:
    - a. PacifiCorp requires the output of the solar panel inverter to be connected to the line side of the production meter socket. The load side of the meter base shall be connected to the panel.
    - b. Customer must provide and install a meter socket that is manufactured in accordance with ANSI-C12.7 and UL/ANSI-414 and appropriately rated for the output of the inverter. Refer to the company's WEB site at <http://www.pacificpower.net/con/esr/mse.html> for a list of approved meter bases.
    - c. Stainless steel meter enclosures are recommended for coastal areas and corrosive atmospheres. This will prevent early failure due to corrosion.

**F. Customer-generator Acknowledgment**

I certify that the information provided in this Application is true. I will provide Pacific Power a copy of the signed government electrical inspection approval document when obtained, if not already provided with this Application.

I agree to abide by the terms of this Application and I agree to notify Pacific Power thirty (30) days prior to modification or replacement of the System's components or design. Any such modification or replacement may require submission of a new Application to Pacific Power.

I agree not to operate the eligible Facility in parallel with Pacific Power, except temporarily for testing and obtaining inspection approval, until this Application is approved by Pacific Power, until this agreement is signed by both parties, and until I have provided Pacific Power with at least ten (10) days notice of anticipated start date.

Customer-Generator or Applicant:  Date: 12/5/10

**Please send completed application to:**  
 Pacific Power – Oregon Solar Incentive Program  
 Attention: Travis Tanner  
 825 NE Multnomah, Suite 800  
 Portland, OR 97232

**Section 3. To be completed by Installation Contractor**

**A. Installation Contractor Information/Hardware and Installation Compliance**

Installation Contractor (Company Name): Advanced Energy Systems, LLC  
 Contractor's License No.: CCB# 160523 Proposed Installation Date: 7/15/2011  
 Mailing Address: 65 Centennial Loop  
 City: Eugene State: OR Zip Code: 97401  
 Daytime Phone: 541.683.2345 Fax: 541.683.2040 Email: jonathan@aesrenew.com

System, the proposed System hardware is in compliance with *Underwriters Laboratories (UL) 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Systems; UL 1703, Standard for Safety: Flat-Plate Photovoltaic Modules and Panels; and IEEE 1262-1995, IEEE Recommended Practice for Qualification of Photovoltaic (PV) Modules.*

System must be installed in compliance with IEEE Standards, Recommended Practice for Utility Interface of Photovoltaic Systems. All System types must be installed in compliance with applicable requirements of

local electrical codes, Pacific Power and the National Electrical Code® (NEC) and must use a non-islanding inverter.

The System must include a manual, lockable, load-break (disconnect) switch, unless exempt under OAR 860-084-0340, accessible at all times to Pacific Power personnel and located within 10 feet of Pacific Power's meter. The disconnect switch may be located more than 10 feet from Pacific Power's meter if permanent instructions are posted at the meter indicating the precise location of the disconnect switch. Pacific Power must approve the location of the disconnect switch prior to the installation of the eligible facility.

The System must be measured by a meter that is capable of measuring the capacity of the eligible system only. The meter will be accessible to Pacific Power at all times. The meter that measures the production will be limited to only the production of the System installed under the requirements of 860-084-0100.

If the eligible Facility is designed to provide uninterruptible power to critical loads, either through energy storage, back-up generator, or the generation source, the eligible Facility will include a parallel blocking scheme for this backup source. This function may be integral to the inverter manufacturer's packaged system.

Does the eligible Facility include a parallel blocking scheme:  Yes  No

Signed (Contractor): Eric Nill Date: 12/05/2011

Name (Print): Eric Nill

**Section 4. To be completed by Pacific Power:**

**A. If approving the application:**

Pacific Power does not, by approval of this Application, assume any responsibility or liability for damage to property or physical injury to persons. Further, this Application does not constitute a dedication of the owner's System to Pacific Power electrical system equipment or facilities.

Customer-Generator entered into an Interconnection and eligible Service Agreement with Pacific Power on the \_\_\_ day of \_\_\_, 20\_\_.

Customer-Generator satisfactorily passed Commissioning Tests on the \_\_\_ day of \_\_\_, 20\_\_.

(Pacific Power may waive Commissioning Tests at its option; if tests are waived initial here \_\_\_)

This Application is approved by Pacific Power on this \_\_\_ day of \_\_\_, 20\_\_

Signed (Pacific Power Representative): \_\_\_\_\_ Date: \_\_\_\_\_

**B. If denying the application:**

This application is denied by Pacific Power on this \_\_\_ day of \_\_\_, 20\_\_ for the following reason(s): \_\_\_\_\_

\_\_\_\_\_

Signed (Pacific Power Representative): \_\_\_\_\_ Date: \_\_\_\_\_

**Section 5. To be completed by Pacific Power Meterman**

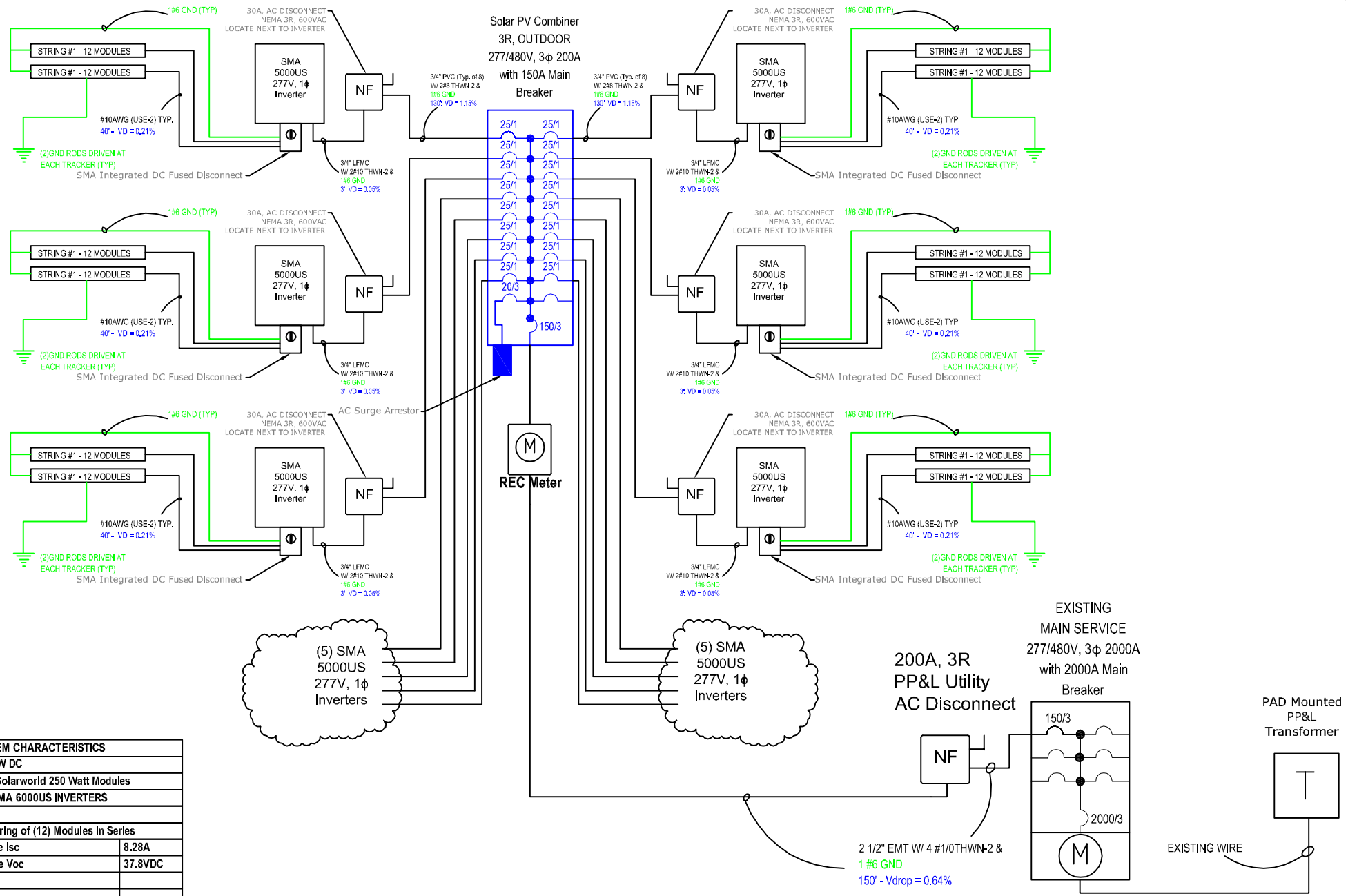
Served from Facility Point No.: \_\_\_\_\_

New Net Meter No.: \_\_\_\_\_ Date net meter installed: \_\_\_\_\_

Production Meter No.: \_\_\_\_\_ Date Production meter installed: \_\_\_\_\_

Manual disconnect device in proper location (if required) and permanent signage in place:  Yes  No

Signature/Title: \_\_\_\_\_ Date: \_\_\_\_\_



SYSTEM CHARACTERISTICS	
96.0 kW DC	
(384) Solarworld 250 Watt Modules	
(16) SMA 6000US INVERTERS	
(32) String of (12) Modules in Series	
Module Isc	8.28A
Module Voc	37.8VDC

KENNETH A. DENOUDEN 5253S

Version #1 KD  
Revised 12/03/10

Rogue Valley Sewer Services  
96kW System  
3655 Lirtland Rd.  
Central Point, OR 97502

Advanced Energy Systems  
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CCB# 160523  
[www.aesrenew.com](http://www.aesrenew.com)



This design was created using solar energy.

SYSTEM CHARACTERISTICS	
(384) SolarWorld 250 Watt Modules	
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STC Rating	96,000 Watts
(16) SMA 6000 Inverters	
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Modules on Dual-Axis Trackers	
PVWF: 1963.75	



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**NEW!** 25-YEAR LINEAR  
PERFORMANCE GUARANTEE  
AND 5-YEAR EXTENDED  
PRODUCT WARRANTY\*

Length 65.94 in (1675 mm)  
Width 39.41 in (1001 mm)  
Height 1.22 in (31 mm)  
Weight 46.7 lbs (21.2 kg)  
Frame Aluminum

# Sunmodule<sup>+</sup>

## SW 250 MONO



### World-class quality

SolarWorld products are manufactured in state-of-the-art factories according to strict German and US quality standards.

### Award-winning products

SolarWorld modules have been ranked number one for two years running in ongoing comparison tests carried out by the Photon trade magazine. Sunmodule plus panels generated up to 12% more yield than other major brand panels.

### SolarWorld Plus-Sorting

Plus-Sorting guarantees the highest efficiency of the installation. SolarWorld only delivers modules that have greater than or equal to the nameplate rated power.

### 25-year Linear Performance Guarantee\*

SolarWorld guarantees, over 25 years, that the modules' performance will not decrease by more than 0.7% per year – a distinct added value compared to industry-standard two-tiered guarantees.

\*according to the SolarWorld service certificate valid at the time of purchase  
[www.solarworld-global.com/service-certificate](http://www.solarworld-global.com/service-certificate)



**We turn sunlight into power.**

# Sunmodule<sup>+</sup>

## SW 250 MONO

### PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC\*)

SW 250		
Maximum power	$P_{max}$	250 Wp
Open circuit voltage	$V_{oc}$	37.8 V
Maximum power point voltage	$V_{mpp}$	31.1 V
Short-circuit current	$I_{sc}$	8.28 A
Maximum power point current	$I_{mpp}$	8.05 A

\*STC: 1000W/m<sup>2</sup>, 25°C, AM 1.5

### PERFORMANCE AT 800 W/M<sup>2</sup>, NOCT, AM 1.5

SW 250		
Maximum power	$P_{max}$	183.3 Wp
Open circuit voltage	$V_{oc}$	34.6 V
Maximum power point voltage	$V_{mpp}$	28.5 V
Short-circuit current	$I_{sc}$	6.68 A
Maximum power point current	$I_{mpp}$	6.44 A

Minor reduction in efficiency under partial load conditions at 25°C: at 220 W/m<sup>2</sup>, 95% (+/-3%) of the STC efficiency (1000 W/m<sup>2</sup>) is achieved.

### COMPONENT MATERIALS

Cells per module	60
Cell type	Monocrystalline Silicon
Cell dimensions	156 mm x 156 mm
Front	tempered glass (EN12150)

### SYSTEM INTEGRATION PARAMETERS

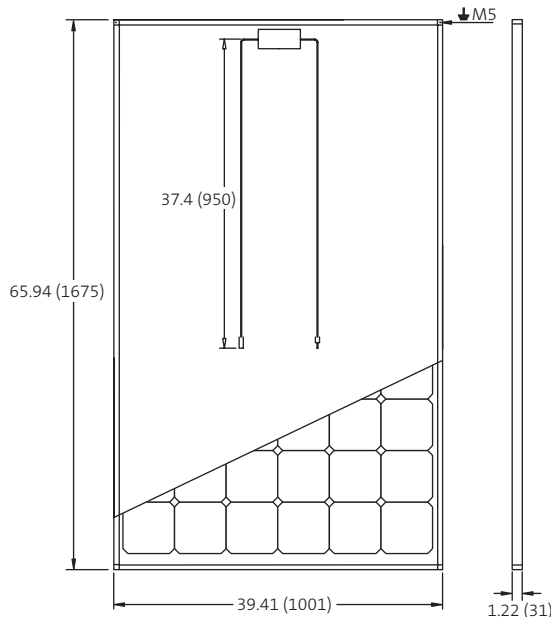
Maximum system voltage SC II	1000 V
Maximum system voltage USA NEC	600 V
Maximum reverse current	16 A
Increased snow load acc. to IEC 61215	5.4 kN/m <sup>2</sup>

### THERMAL CHARACTERISTICS

NOCT	47 °C
TC $I_{sc}$	0.042 %/°C
TC $V_{oc}$	-0.33 %/°C
TC $P_{mpp}$	-0.45 %/°C

### ADDITIONAL DATA

Power tolerance <sup>1</sup>	+/- 3 %
SolarWorld Plus-Sorting <sup>1</sup>	$P_{Flash} \geq P_{max}$
Junction box	IP65
Connector	MC4
Module Efficiency	14.9%



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection



1) The output identified by SolarWorld ( $P_{Flash}$ ) is always higher than the nominal output ( $P_{max}$ ) of the module.

SolarWorld AG reserves the right to make specification changes without notice. This data sheet complies with the requirements of EN 50380. Sunmodule panels are manufactured in ISO 9001:2000 certified facilities



# SUNNY BOY 5000-US / 6000-US / 7000-US / 8000-US

SB 5000US / SB 6000US / SB 7000US / SB 8000US



## UL Certified

- For countries that require UL certification (UL 1741/IEEE 1547)

## Efficient

- 97% peak efficiency
- OptiCool™ active temperature management system

## Safe

- Galvanic isolation

## Simple

- Patented automatic grid voltage detection\*
- Integrated DC disconnect switch

## SUNNY BOY 5000-US / 6000-US / 7000-US / 8000-US

Versatile performer with UL certification

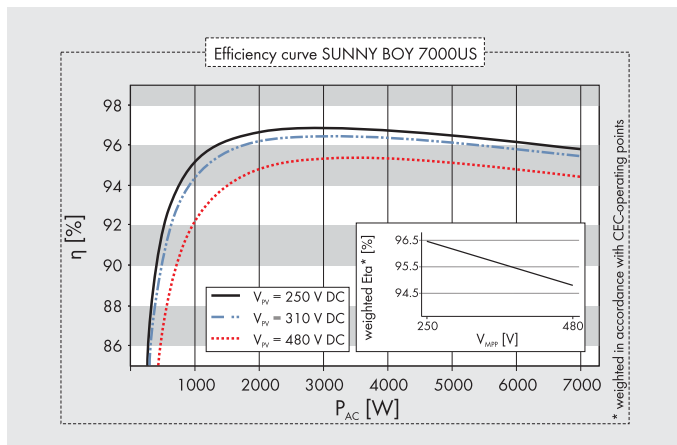
The Sunny Boy 5000-US, 6000-US, 7000-US and 8000-US inverters are UL certified and feature excellent efficiency. Graduated power classes provide flexibility in system design. Automatic grid voltage detection\* and an integrated DC disconnect switch simplify installation, ensuring safety as well as saving time. These models feature galvanic isolation and can be used with all types of modules—crystalline as well as thin-film.

\* US Patent US7352549B1




Technical data	Sunny Boy 5000-US			Sunny Boy 6000-US			Sunny Boy 7000-US			Sunny Boy 8000-US	
	208 V AC	240 V AC	277 V AC	208 V AC	240 V AC	277 V AC	208 V AC	240 V AC	277 V AC	240 V AC	277 V AC
<b>Input (DC)</b>											
Max. recommended PV power (@ module STC)	6250 W			7500 W			8750 W			10000 W	
Max. DC power (@ $\cos \phi = 1$ )	5300 W			6350 W			7400 W			8600 W	
Max. DC voltage	600 V			600 V			600 V			600 V	
DC nominal voltage	310 V			310 V			310 V			345 V	
MPP voltage range	250 V - 480 V			250 V - 480 V			250 V - 480 V			300 V - 480 V	
Min. DC voltage / start voltage	250 V / 300 V			250 V / 300 V			250 V / 300 V			300 V / 365 V	
Max. input current / per string (at DC disconnect)	21 A / 20 A 36 A @ combined terminal			25 A / 20 A 36 A @ combined terminal			30 A / 20 A 36 A @ combined terminal			30 A / 20 A 36 A @ combined terminal	
Number of MPP trackers / fused strings per MPP tracker	1 / 4 (DC disconnect)										
<b>Output (AC)</b>											
AC nominal power	5000 W			6000 W			7000 W			7680 W 8000 W	
Max. AC apparent power	5000 VA			6000 VA			7000 VA			8000 VA	
Nominal AC voltage / adjustable	208 V / ●	240 V / ●	277 V / ●	208 V / ●	240 V / ●	277 V / ●	208 V / ●	240 V / ●	277 V / ●	240 V / ●	277 V / ●
AC voltage range	183 - 229 V	211 - 264 V	244 - 305 V	183 - 229 V	211 - 264 V	244 - 305 V	183 - 229 V	211 - 264 V	244 - 305 V	211 - 264 V	244 - 305 V
AC grid frequency; range	60 Hz; 59.3 - 60.5 Hz			60 Hz; 59.3 - 60.5 Hz			60 Hz; 59.3 - 60.5 Hz			60 Hz; 59.3 - 60.5 Hz	
Max. output current	24 A	21 A	18 A	29 A	25 A	22 A	34 A	29 A	25 A	32 A	
Power factor ( $\cos \phi$ )	1			1			1			1	
Phase conductors / connection phases	1/2	1/2	1/1	1/2	1/2	1/1	1/2	1/2	1/1	1/2	1/1
Harmonics	< 4%			< 4%			< 4%			< 4%	
<b>Efficiency</b>											
Max. efficiency	96.7%	96.8%	96.8%	96.9%	96.8%	97.0%	97.1%	96.9%	97.0%	96.3%	96.5%
CEC efficiency	95.5%	95.5%	95.5%	95.5%	95.5%	96.0%	95.5%	96.0%	96.0%	96.0%	96.0%
<b>Protection devices</b>											
DC reverse-polarity protection	●			●			●			●	
AC short circuit protection	●			●			●			●	
Galvanically isolated / all-pole sensitive monitoring unit	●/-			●/-			●/-			●/-	
Protection class / overvoltage category	I / III			I / III			I / III			I / III	
<b>General data</b>											
Dimensions (W / H / D) in mm (in)	470 / 615 / 240 (18.5 / 24 / 9)										
DC Disconnect dimensions (W / H / D) in mm (in)	187 / 297 / 190 (7 / 12 / 7.5)										
Packing dimensions (W / H / D) in mm (in)	390 / 580 / 800 (16 / 23 / 31.5)										
DC Disconnect packing dimensions (W / H / D) in mm (in)	370 / 240 / 280 (15 / 9 / 11)										
Weight / DC Disconnect weight	64 kg (141 lb) / 3.5 kg (8 lb)									66 kg (145 lb) / 3.5 kg (8 lb)	
Packing weight / DC Disconnect packing weight	67 kg (147 lb) / 4 kg (9 lb)									69 kg (152 lb) / 4 kg (9 lb)	
Operating temperature range (full power)	-25 °C ... +45 °C (-13 °F ... +113 °F)										
Noise emission (typical)	44 dB(A)			45 dB(A)			46 dB(A)			49 dB(A)	
Internal consumption at night	0.1 W			0.1 W			0.1 W			0.1 W	
Topology	LF transformer			LF transformer			LF transformer			LF transformer	
Cooling concept	OptiCool			OptiCool			OptiCool			OptiCool	
Electronics protection rating / connection area	NEMA 3R / NEMA 3R			NEMA 3R / NEMA 3R			NEMA 3R / NEMA 3R			NEMA 3R / NEMA 3R	
<b>Features</b>											
Display: text line / graphic	●/-			●/-			●/-			●/-	
Interfaces: RS485 / Bluetooth	○/○			○/○			○/○			○/○	
Warranty: 10 / 15 / 20 years	●/○/○			●/○/○			●/○/○			●/○/○	
Certificates and permits (more available on request)	UL1741, UL1998, IEEE 1547, FCC Part 15 (Class A & B), CSA C22.2 No. 107.1-2001										
NOTE: US inverters ship with gray lids.											
Data at nominal conditions											
● Standard features ○ Optional features - Not available											
Type designation	SB 5000US			SB 6000US			SB 7000US			SB 8000US	


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### Accessories




RS485 interface  
485USPB-SMC-NR



Bluetooth® Piggy Back  
BTPBINV-NR



Combi-Switch  
DC disconnect and PV  
array combiner box  
COMBO-SWITCH



Combiner Box  
Simplify wiring for added  
convenience and safety  
SBCB-6-3R or SBCB-6-4

Oregon Solar Incentive Program  
Standard Contract  
21 Pages

**VOLUMETRIC INCENTIVE PAYMENT AND INTERCONNECTION AGREEMENT  
(Net Metering Option)**

**BETWEEN**

Rogue Valley Sewer Services  
[a new solar photovoltaic system with 100 kW Nameplate Capacity, or Less]

**AND**

**PACIFIC POWER**

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Exhibit A Application for Solar Incentive Program Interconnection

Exhibit B Participant’s Volumetric Incentive Rate

Interconnection Appendix

This Agreement shall be used for all approved Net Metering Applications for Interconnection according to the procedures and requirements set forth in Commission Rules, Oregon Administrative Rules (“OAR”) Chapter 860, Division 84 (Solar Photovoltaic Pilot Program Rules).

## VOLUMETRIC INCENTIVE PAYMENT AND INTERCONNECTION AGREEMENT

THIS VOLUMETRIC INCENTIVE PAYMENT AND INTERCONNECTION AGREEMENT (“**Agreement**”) is between Rogue Valley Sewer Services, "**Participant**" and **PacifiCorp** (d/b/a Pacific Power), an Oregon corporation acting in its regulated utility capacity, "**Pacific Power.**" (Participant and Pacific Power are referred to individually as a "**Party**" or collectively as the "**Parties**").

### RECITALS

A. Participant intends to construct, own, operate and maintain a solar photovoltaic energy system that is an eligible system under Oregon Administrative Rule (“**OAR**”) 860-084-120. Participant is a retail electric customer of Pacific Power and participant’s system will be permanently installed at 3655 Kirtland Rd Central Point, OR [Street address, City, County, State] with a Nameplate Capacity of 100 -kilowatts (kW) as further described in Participant’s Application for Solar Incentive Program Interconnection, attached hereto as **Exhibit A** (“**Eligible System**”).

B. Participant intends to net meter the energy generated by its Eligible System under the Commission’s Solar Photovoltaic Pilot Program.

C. Participant’s Eligible System requires a Level 2 Interconnection Review, as that term is used in OAR 860, Division 84.

D. This Agreement provides the terms and conditions whereby Pacific Power interconnects Participant’s Eligible System to Pacific Power’s system and compensates Participant for Payable Generation generated by its Eligible System.

E. Participant’s reservation start date is October 6, 2010 (“**Reservation Start Date**”).

F. Participant estimates that the average annual energy to be delivered by the Eligible System to Pacific Power is 188,520 kilowatt-hours (kWh), which amount of energy Pacific Power will include in its resource planning.

## AGREEMENT

NOW, THEREFORE, the Parties mutually agree as follows:

### SECTION 1: DEFINITIONS

When used in this Agreement, the following terms shall have the following meanings:

1.1 “**Accumulated Excess Generation**” means sum of uncompensated Excess Generation for each month of a Generation Year-to-date.

1.2 “**Application for Solar Incentive Program Interconnection**” means the application form filled out by Participant (Attached hereto as **Exhibit A**) and used by Pacific Power to determine Participant’s requirements for interconnection.

1.3 “**Billing Period**” means the time period between Pacific Power's consecutive readings of Participant’s meter(s) in the normal course of Pacific Power's business. Such periods typically range between twenty-seven (27) and thirty-four (34) days and coincide approximately, but not exactly, with calendar months. Participant’s generation and consumption shall be accounted for in identical Billing Periods. Any reference herein to a “monthly charge” or “monthly period” shall be interpreted to mean a charge or rate applicable during the Billing Period most closely approximating that calendar month.

1.4 “**Commission**” means the Public Utility Commission of Oregon.

1.5 “**Effective Date**” shall have the meaning set forth in Section 2.1.

1.6 “**Eligible Generation**” means the actual Eligible System generation, net of System Requirements and losses, if any, to Pacific Power’s generation meter(s).

1.7 “**Eligible System**” shall have the meaning set forth in Recital A.

1.8 “**Excess Generation**” (kWh) means that increment of Eligible Generation generated in excess of Participant’s retail electricity consumption on a monthly (Billing Period) basis.

1.9 “**Expiration Date**” shall have the meaning set forth in Section 2.3.

1.10 “**Generation Year**” unless otherwise specified, means a twelve-month period beginning at 12:00:01 a.m. prevailing Pacific Time on April 1 and terminating at midnight on March 31 of the following calendar year, except that the first Generation Year shall commence at 12:00:01 a.m. on the Effective Date and the last Generation Year shall end at midnight on the Expiration Date.

1.11 “**Interconnection Appendix**” means the attached appendix to this Agreement, providing for the construction, modification, testing, operation, and maintenance of

Interconnection Facilities required to accommodate generation from Participant's Eligible System.

1.12 “**Interconnection Facilities**” means facilities and equipment installed or modified in order to accommodate the interconnection of the Eligible System.

1.13 “**Nameplate Capacity**” means the maximum rated direct current output of a solar photovoltaic system, measured at an irradiance level of 1000W/m<sup>2</sup>, with reference air mass 1.5 solar spectral irradiance distribution and cell or module junction temperature of 25°C.

1.14 “**Operation Date**” means the date that the Eligible System is deemed by Pacific Power to be fully operational and reliable, and authorized for operation in parallel with Pacific Power's distribution system in accordance with Article 3 of the Interconnection Appendix.

1.15 “**Participant's Retail Rate**” (\$/kWh) means the sum of the Distribution Energy Charge and the Transmission & Ancillary Services Charge in the Pacific Power service schedule under which Participant takes retail electric service.

1.16 “**Payable Generation**” means Eligible Generation (kWh) during a Billing Period plus Accumulated Excess Generation (if any), up to Participant's actual Billing Period usage.

1.17 “**Point of Interconnection**” means the point of common coupling between Participant's Eligible System and Pacific Power's distribution system.

1.18 “**Qualifying Assignee**” means a person to whom Participant may assign Volumetric Incentive Rate payments. Pacific Power or its affiliate or any other regulated utility is not a Qualifying Assignee. Qualifying Assignees include, but are not limited to:

- (a) A lender providing up front financing to Participant;
- (b) A company or individual who enters into a financial agreement with Participant to own and operate the Eligible System on behalf of Participant in return for compensation;
- (c) A company or individual who contracts with Participant to locate the Eligible System on property owned by Participant; or
- (d) Any entity identified by Participant to receive payments that Pacific Power is obligated to pay to Participant.

1.19 “**Renewable Energy Certificates**” is defined in Section 6.

1.20 “**Reservation Start Date**” means the date consumer secured an entitlement to capacity under Pacific Power's Solar Photovoltaic Pilot Program as set forth in Recital E.

1.21 “**Solar Photovoltaic Pilot Program**” or “**Pilot Program**” means the Commission's implementation of ORS 757.365 (2009)(as amended by House Bill 3690(2010)) via the Solar Photovoltaic Pilot Program Rules, including any subsequent revisions thereto.

1.22 “**Solar Photovoltaic Pilot Program Rules**”, or “**Rules**”, means Oregon Administrative Rules (“OAR”) Chapter 860, Division 84 and related Commission orders interpreting or augmenting those Rules.

1.23 “**Volumetric Incentive Rate**” means the incentive price paid by Pacific Power for Eligible Generation set forth in **Exhibit B**.

Capitalized terms not defined herein shall have the meaning set forth in the Solar Photovoltaic Pilot Program Rules.

## **SECTION 2: TERM; EFFECTIVE DATE**

2.1 This Agreement shall become effective on the latest date of execution by either Party, below (“**Effective Date**”).

2.2 This Agreement shall terminate automatically if the Eligible System has not been installed within twelve months of the Reservation Start Date, unless the Commission waives termination for good cause shown.

2.3 Except as otherwise provided herein, this Agreement shall expire at midnight exactly fifteen (15) years after the Operation Date (“**Expiration Date**”).

## **SECTION 3: CERTIFICATIONS AND WARRANTIES**

Participant certifies and warrants to Pacific Power that:

3.1 The information set forth in Exhibit A (Participant’s Application for Solar Incentive Program Interconnection) is accurate, to the best of Participant’s knowledge.

3.2 Participant’s Eligible System is and shall for the term of this Agreement continue to be an Eligible System under OAR 860-084-120.

3.3 The Eligible System will not benefit from expenditures under ORS 757.612 (3)(b)(B) or tax credits under ORS 469.160 or ORS 469.185 to 469.225.

3.4 The Eligible System is a new system, made with all new components, installed after the Reservation Start Date.

3.5 The Eligible System complies with siting, design, interconnection, installation, and electric output standards and codes required by the laws of Oregon.

3.6 Participant has not and will not compete for a power purchase agreement for its Eligible System under the Commission’s Solar Capacity Standard, as described in OAR 860-084-0020 through OAR 860-084-0080.

3.7 The Eligible System meets quality, reliability, and system installation requirements established by the Commission. (*See* OAR 860-084-0240(2)(e)(B); OAR 860-084-0120).

3.8 Participant (or any subsequent owner of the Eligible System) will remain a retail electricity customer of Pacific Power during this Agreement.

3.9 The Eligible System complies with the size requirements of OAR 860-084-0100(2)(e).

3.10 The Eligible System will be installed on the same property where Participant buys electricity from Pacific Power.

3.11 Participant possesses the legal right (e.g. through ownership, lease, or irrevocable license) to maintain its Eligible Facility at the site described in Exhibit A for the term of this Agreement and, if requested by Pacific Power, will provide documentation of such right at any time.

3.12 Participant will notify Pacific Power within 30 days of any changes to the Eligible System.

#### **SECTION 4: OBLIGATIONS OF THE PARTIES**

4.1 Participant is participating in the Net Metering Option as provided for under the Commission's Solar Photovoltaic Pilot Program Rules, as may be amended from time to time. The Parties' performance of this Agreement is subject to the requirements set forth therein. Performance of this Agreement shall also be subject to the requirements of Pacific Power's Schedule 136 Tariff and other applicable Pacific Power tariffs, as may be amended from time to time. In the event that the provisions of this Agreement conflict with the Solar Photovoltaic Pilot Program Rules or any Pacific Power tariff, the Commission's rules and Pacific Power's tariffs shall take precedence in that order.

4.2 Payable Generation. Commencing on the Operation Date, unless otherwise provided herein, Participant will sell and Pacific Power will purchase all Payable Generation from the Eligible System. Participant shall not sell any generation from the Eligible System to any party except Pacific Power during this Agreement.

4.3 Accumulated Excess Generation. At the end of each Generation Year, Participant shall forfeit Accumulated Excess Generation, if any, and Pacific Power shall make a corresponding donation to Pacific Power's low-income assistance program at the applicable average annual avoided cost tariff rate in Pacific Power's Schedule 37 Tariff. Pacific Power may retain for its benefit any Renewable Energy Certificates associated with Accumulated Excess Generation.

4.4 Participant remains responsible for Commission-authorized minimum monthly charges and all other non-volumetric tariff charges (including the meter fee in Section 10), which Pacific Power will assess in Participant's retail monthly bill.



## **SECTION 5: VOLUMETRIC INCENTIVE RATES**

Pacific Power shall pay Participant the difference between Participant's Volumetric Incentive Rate (as set forth in Pacific Power's Schedule 136 Tariff) and Participant's Retail Rate (\$/kWh) for all Payable Generation. The resulting rate is provided in Exhibit B.

## **SECTION 6: RENEWABLE ENERGY CERTIFICATES**

Pacific Power shall own all the Renewable Energy Certificates ("RECs") associated with the Eligible System; Participant shall reasonably cooperate as needed to help Pacific Power perfect its ownership thereof. RECs means all right, title and interest in and to Environmental Attributes, plus the REC Reporting Rights. "Environmental Attributes" means any and all credits, benefits, claims, emissions reductions, environmental air quality credits, and emissions reduction credits, offsets, and allowances, howsoever entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance attributable to the generation of the Payable Generation by the Eligible System and the delivery of the Payable Generation to Pacific Power's meter, and include without limitation any of the same arising out of legislation or regulation concerned with oxides of nitrogen, sulfur, or carbon, with particulate matter, soot, or mercury, or implementing the United Nations Framework Convention on Climate Change (the "UNFCCC") or the Kyoto Protocol to the UNFCCC or crediting "early action" with a view thereto, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator (collectively with any state or federal entity given jurisdiction over a program involving transferability of Environmental Attributes, the "CAMD"), but specifically excluding only (i) the wind production tax credits, if any, and (ii) matters designated by Pacific Power as sources of liability or adverse wildlife or environmental impacts. "REC Reporting Rights" means the right to report to any agency, authority or other party, including without limitation under Section 1605(b) of the Energy Policy Act of 1992, or under any present or future domestic, international or foreign emissions trading program, exclusive ownership of the Environmental Attributes. One REC represents the Environmental Attributes attributable to the generation of 1 MWh of Payable Generation by the Eligible System and the delivery thereof to the electricity grid.

## **SECTION 7: INTERCONNECTION**

**7.1 Prior to interconnecting its Eligible System, Participant shall obtain Pacific Power's approval in accordance with the requirements of Article 3 of the Interconnection Appendix.** Participant will abide by all requirements for construction, testing, operation and maintenance set forth in the Solar Photovoltaic Pilot Program Rules and all applicable Pacific Power tariffs.

**7.2 Interconnection Appendix.** The Parties shall perform all obligations set forth in the Interconnection Appendix.

**7.3 Allocation of costs.** Participant shall be responsible for all costs, including overheads, associated with procuring, installing, owning, operating, maintaining, repairing, and replacing its Eligible System (including any disconnect switch required by OAR 860-084-

340(3)), any associated equipment package, and any associated Interconnection Facilities or modifications described in the Interconnection Appendix.

7.4 Access. As provided in the Solar Photovoltaic Pilot Program Rules, Participant shall provide Pacific Power access to any required disconnect switch at the Eligible System at all times and for inspection when otherwise permitted. Pacific Power will provide reasonable notice to Participant when possible prior to using its right of access. Additionally, as provided in Pacific Power & Light Company Oregon Rule 6, or its successor tariff, Participant shall permit Pacific Power access to the metering equipment.

## **SECTION 8: TEMPORARY DISCONNECTION**

8.1 Pacific Power or Participant may temporarily disconnect the Eligible System from Pacific Power's system for so long as reasonably necessary in the event one or more of the following conditions or events occurs:

- 8.1.1 Emergency conditions. Pacific Power or Participant may immediately and temporarily disconnect the Eligible System in an emergency. Pacific Power shall notify Participant promptly when Pacific Power becomes aware of an emergency condition that may reasonably be expected to affect operation of the Eligible System. Participant shall notify Pacific Power promptly when it becomes aware of an emergency condition that may reasonably be expected to affect Pacific Power's system. To the extent the information is known, the notification shall describe the emergency condition, the extent of any damage or deficiency, the expected effect on the operation of each Party's facilities and operations, the anticipated duration, and the necessary corrective action.
- 8.1.2 Scheduled maintenance, repair or construction. Pacific Power or the Participant may disconnect the Eligible System during maintenance of the Eligible System or Pacific Power's distribution system. Parties will make reasonable efforts to provide two (2) business days notice to the other Party prior to such interruption and shall use reasonable efforts to coordinate such interruption.
- 8.1.3 Likelihood of harm to other customers. Pacific Power may disconnect the Eligible Facility if it will likely cause disruption or deterioration of service to other customers, or if operating the Eligible System could cause damage to Pacific Power's electric distribution system. In such event, Pacific Power shall provide the Participant supporting documentation used to reach the decision to disconnect the Eligible Facility upon the Participant's request.
- 8.1.4 Unauthorized modifications. Pacific Power may disconnect the Eligible Facility if the Participant makes any change to the Eligible System, other

than minor equipment modifications, without prior written authorization of Pacific Power.

8.1.5 Nonconformance with this Agreement. Pacific Power may disconnect the Eligible System if it determines that the Eligible System is noncompliant with this Agreement, the Rules or its tariffs.

8.2 If the Eligible System must be physically disconnected for any reason, Pacific Power may do so by disconnecting all service to the Participant or all service to the premises where the Eligible System is located, or both.

8.3 The Parties shall cooperate with each other to restore the Eligible System, Interconnection Facilities, and Pacific Power's system to their normal operating state as soon as reasonably practicable following any disconnection pursuant to this Section 8.

## **SECTION 9: PARTICIPANT'S ADDITIONAL COOPERATION**

9.1 Agreement to Release Information. Participant hereby agrees to allow Pacific Power to release information concerning its participation in the Solar Photovoltaic Pilot Program, including the names of all participants in the Pilot Program, to the Oregon Department of Revenue, the Oregon Department of Energy, the Commission and the Energy Trust of Oregon ("ETO"). Pacific Power shall use reasonable efforts to pursue appropriate confidentiality terms with the above agencies and organizations. As required by OAR 860-084-0240 (2)(f), Pacific Power shall provide Participant with documentation of the confidentiality requirements that those receiving the information must follow.

9.2 Agreement to Participate in Surveys. Participant hereby agrees to complete up to three surveys on the effectiveness of the Pilot Program in order to remain eligible for participation in the Pilot Program. Information to be provided may include, but is not limited to: understanding the various factors contributing to participation in the Pilot Program; understanding decision processes used to choose between the volumetric incentive rate solar program and the existing net-metering solar program; and satisfaction with and recommendations for improving the Pilot Program processes. Participant agrees that Pacific Power may release information concerning Participant obtained from the surveys to the Commission, Oregon Department of Revenue, Oregon Department of Energy, and the ETO.

## **SECTION 10: METERING**

10.1 Subject to Section 10.4, Pacific Power shall install, own and maintain, at its sole expense, a kilowatt-hour meter(s) and associated equipment to measure the flow of energy in each direction, in accordance with OAR 860-084-0280. Participant shall provide, at its sole expense, adequate facilities, including, but not limited to, a current transformer enclosure (if required), meter socket(s) and junction box, for the installation of the meter and associated equipment. Participant hereby consents to the installation and operation by Pacific Power, of one or more additional meters to monitor the flow of electricity in each direction. Such meters shall be located on the premises of Participant.

10.2 Metering shall be performed at the location and in a manner consistent with this Agreement.

10.3 Pacific Power may periodically inspect, test, repair and replace its metering equipment. If any of the inspections or tests discloses an error exceeding two percent (2%), either fast or slow, proper correction, based upon the inaccuracy found, shall be made of previous readings for the actual period during which the metering equipment rendered inaccurate measurements if that period can be ascertained. If the actual period cannot be ascertained, the proper correction shall be made to the measurements taken during the time the metering equipment was in service since last tested, but not exceeding three (3) billing periods, in the amount the metering equipment shall have been shown to be in error by such test. Any correction in billings or payments resulting from a correction in the meter records shall be made in the next monthly billing or payment rendered following the repair of the meter.

10.4 Monthly Meter Fee. In accordance with Commission Order No. 10-198, Participant shall pay a \$10 monthly meter fee, for each additional meter required, for the term of this Agreement. The monthly meter fee shall be included in Participant's monthly retail service bill.

#### **SECTION 11: BILLINGS, COMPUTATIONS, AND PAYMENTS**

11.1 On or before the forty-fifth (45th) day following the end of each month, Pacific Power shall send to Participant payment for Participant's deliveries of Payable Generation to Pacific Power, together with computations supporting such payment. Participant elects the following method of payment:

- Payments will be paid directly to the Participant; the Participant will continue to receive a standard monthly utility bill for electricity purchased under the applicable rate schedule [default option if none selected]; or
- Payments will be netted with the Participant's monthly utility bill for electricity purchased under the Participant's applicable schedule.

Pacific Power may deduct from any such payment, above, amounts owing and delinquent more than 45 days on Participant's monthly utility bill or owing under this Agreement.

11.2 Corrections. Pacific Power shall have up to eighteen months to adjust any payment made pursuant to Section 11.1. In the event Pacific Power determines it has overpaid Participant (for Excess Output or otherwise), Pacific Power may adjust Participant's future payment accordingly in order to recapture any overpayment in a reasonable time.

#### **SECTION 12: PARTICIPANT'S DEPOSIT**

Participant paid Pacific Power \$2000.00 at the time it submitted its Solar Photovoltaic Pilot Program Capacity Reservation Application ("Reservation Fee"). Pacific Power shall refund the Reservation Fee by mailing Participant a check with Participant's first incentive

payment or incentive payment statement. In the event Participant does not achieve operation in substantial compliance with this Agreement, Participant shall be deemed to have forfeited its Reservation Fee. Pacific Power will notify Participant in writing when it has deemed the Reservation Fee forfeited.

### **SECTION 13: DEFAULTS AND REMEDIES**

13.1 Events of Default. The following events shall constitute defaults under this Agreement:

13.1.1 Breach of Material Term. Failure of a Party to perform any material obligation imposed upon that Party by this Agreement or breach by a Party of a representation or warranty set forth in this Agreement.

13.1.2 Non-delivery. Participant's failure to deliver Payable Generation for any 12-month period.

13.1.3 Insolvency. A Party files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy or similar law for the protection of creditors, or has such a petition filed against it and such petition is not withdrawn or dismissed within sixty (60) days after such filing.

13.1.4 Participant is found by the Commission to have made a false certification hereunder.

13.2 Notice; Opportunity to Cure. For a default under Section 13.1.1, a defaulting Party shall have sixty (60) days to cure after receipt of written notice from the non-defaulting Party. If the default is not capable of cure within the 60-day period, the defaulting Party must begin to cure the default within twenty (20) calendar days after receipt of the written default notice, and must continuously and diligently complete the cure within six (6) months of the receipt of the notice.

13.3 Termination. If a default described herein has not been cured within the prescribed time to cure (if any) above, the non-defaulting Party may terminate this Agreement at its sole discretion by delivering written notice to the other Party. Upon termination, the Eligible System will be disconnected from Pacific Power's system at Participant's expense. The termination of this Agreement will not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination. In the event this Agreement is terminated because of Participant's default, neither Participant nor the Eligible System shall be eligible, at any location in Oregon, for subsequent volumetric incentive rates, other feed-in tariffs, or pilot programs prior to the Expiration Date. The non-defaulting Party may contest a termination by seeking dispute resolution with the Commission within 30 days of termination, else termination shall be final.

## **SECTION 14: INDEMNIFICATION AND LIABILITY**

### 14.1 Indemnities.

14.1.1 Indemnity by Participant. Participant shall release, defend, indemnify and hold harmless Pacific Power, its directors, officers, agents, and representatives against and from any and all loss, fines, penalties, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with (a) the energy delivered by Participant under this Agreement to and at the Point of Interconnection, (b) any facilities on Participant's side of the Point of Interconnection, (c) Participant's operation and/or maintenance of the Eligible System, or (d) arising from this Agreement, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property belonging to Pacific Power, Participant or others, excepting only such loss, claim, action or suit as may be caused solely by the fault or gross negligence of Pacific Power, its directors, officers, employees, agents or representatives.

14.1.2 Indemnity by Pacific Power. Pacific Power shall release, defend, indemnify and hold harmless Participant, its directors, officers, agents, Lenders and representatives against and from any and all loss, fines, penalties, claims, actions or suits, including costs and attorney's fees, both at trial and on appeal, resulting from, or arising out of or in any way connected with the energy delivered by Participant under this Agreement after the Point of Interconnection, including without limitation any loss, claim, action or suit, for or on account of injury, bodily or otherwise, to, or death of, persons, or for damage to, or destruction or economic loss of property, excepting only such loss, claim, action or suit as may be caused solely by the fault or gross negligence of Participant, its directors, officers, employees, agents, Lenders or representatives.

14.2 No Dedication. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to any person not a Party to this Agreement. No undertaking by one Party to the other under any provision of this Agreement shall constitute the dedication of that Party's system or any portion thereof to the other Party or to the public, nor affect the status of Pacific Power as an independent public utility corporation or Participant as an independent individual or entity.

14.3 No Consequential Damages. NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR SPECIAL, PUNITIVE, INDIRECT, EXEMPLARY OR CONSEQUENTIAL DAMAGES, WHETHER SUCH DAMAGES ARE ALLOWED OR PROVIDED BY CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, STATUTE OR OTHERWISE.

## **SECTION 15: INSURANCE**

15.1 Certificates. Prior to connection of the Eligible System to Pacific Power's electric system, Participant shall secure and continuously carry insurance in compliance with the requirements of this Section 15. Upon request, participant shall provide Pacific Power insurance certificate(s) (of "ACORD Form" or the equivalent) evidencing Participant's compliance with the insurance requirements hereunder. Liability coverage written on a "claims-made" basis, if any, shall be specifically identified on the certificate. If requested by Pacific Power, a copy of each insurance policy, certified as a true copy by an authorized representative of the issuing insurance company, shall be furnished to Pacific Power.

15.2 Required Policies and Coverages. Without limiting any liabilities or any other obligations of Participant under this Agreement, Participant shall secure and continuously carry with an insurance company or companies rated not lower than "B+" by the A.M. Best Company the insurance coverage specified below:

Liability insurance shall be provided with a minimum single limit of \$1,000,000 to protect against and from all loss by reason of injury to persons or damage to property based upon and arising out of the activity under this Agreement.

15.3 The liability policy required herein shall include provisions or endorsements i) naming Pacific Power, its Board of Directors, Officers and employees as additional insureds, ii) cross liability coverage so that the insurance applies separately to each insured against whom claim is made or suit is brought, even in instances where one insured claims against or sues another insured, iii) such insurance is primary insurance with respect to the interests of Pacific Power and that any other insurance maintained by Pacific Power is excess and not contributory insurance with the insurance required hereunder, and iv) such policies shall not be canceled or their limits of liability reduced without 1) ten (10) days prior written notice to Pacific Power if canceled for nonpayment of premium, or 2) thirty (30) days prior written notice to Pacific Power if canceled for any other reason; *provided however*, that the requirements of this Section 15.3 shall not apply to liability insurance carried by residential or noncommercial farming customers.

## **SECTION 16: DISCLOSURE REQUIRED BY OAR 860-084-0240(2)(K)**

In conformance with OAR 860-084-0240(2)(K) Pacific Power hereby notifies Participant that payments under the net metering option may be taxable as income under Oregon and Federal Tax law and Participant's Eligible System may be subject to property tax in the State of Oregon.

## **SECTION 17: FORCE MAJEURE**

17.1 As used in this Agreement, a Force Majeure Event shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation, or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause which is in each case (i) beyond the reasonable control of such affected Party, (ii) by the exercise of reasonable foresight

such Party could not reasonably have been expected to avoid and (iii) by the exercise of due diligence, such Party shall be unable to prevent or overcome.

17.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (“Affected Party”) shall promptly notify the other Party of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, the expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance, and if the initial notification was verbal, it should be promptly followed up with a written notification. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be reasonably mitigated. The Affected Party will use reasonable efforts to resume its performance as soon as possible. The Parties shall immediately report to the Commission should a Force Majeure Event prevent performance of any non-waivable obligations required by Commission Rules.

## **SECTION 18: SUCCESSORS AND ASSIGNS**

18.1 This Agreement may be assigned by either Party with the consent of the other Party. A Party’s consent to an assignment may not be unreasonably withheld. The assigning Party must give the non-assigning Party written notice of the assignment at least fifteen days (15) before the effective date of the assignment. The non-assigning Party must submit its objection to the assignment, if any, to the assigning Party in writing at least five (5) business days before the effective date of the assignment. If a written objection is not received within that time period, the non-assigning party is deemed to consent to the assignment.

### 18.2 Exceptions to the Consent Requirement

18.2.1 Either Party may assign its rights and obligations under this Agreement without the consent of the other Party to any affiliate (including a merger or acquisition of the Party with another entity) of the assigning Party with an equal or greater creditworthiness and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement.

18.2.2 Participant may assign its rights and obligations under this Agreement, without the consent of Pacific Power, for collateral security purposes to aid in obtaining financing for the Eligible System.

18.2.3 Participant may assign Section 11.1 payments to a single Qualifying Assignee at any time by providing Pacific Power written notice and a \$25 setup fee; *provided*, that such notice and payment must be given at least 15 business days before becoming effective to allow Pacific Power time to determine that the assignee is a Qualifying Assignee and process the



change. Such notice shall specify the term of assignment and whether the assignment is revocable. Such an assignment will not operate to delegate any responsibilities or duties of Participant under this Agreement to Qualifying Assignee.

18.3 Any attempted assignment that violates this Article is void. An assignee is responsible for meeting the same obligations as the assigning Party.

## **SECTION 19: DISPUTES**

Nothing in this Agreement shall restrict or enlarge the rights of any Party to file a complaint with the Commission under relevant provisions of the Commission's rules.

## **SECTION 20: MISCELLANEOUS**

20.1 Survival. The rights and obligations set forth in Sections 9, 11, 13.3, and 15.5 shall survive Termination or Expiration of this Agreement.

20.2 Amendment. The Parties may only amend this Agreement by a written instrument duly executed by both Parties in accordance with the provisions of the applicable Commission rules and Orders, or by the Commission for good cause shown.

20.3 No Third-Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, or where permitted, their successors in interest or their assigns.

20.4 Counterparts. This Agreement may be executed in one or more counterparts, whether electronically or otherwise, and each counterpart shall have the same force and effect as an original Agreement and as if all the Parties had signed the same document.

20.5 No Partnership/Joint and Several Liability. This Agreement will not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party. If Participant includes two or more parties, each such party shall be jointly and severally liable for Participant's obligations under this Agreement.

20.6 Severability. If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as

practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of the Agreement shall remain in full force and effect.

20.7 Waiver. Any waiver at any time by either Party of its rights with respect to a default under this Agreement or with respect to any other matters arising in connection with this Agreement must be in writing, and such waiver shall not be deemed a waiver with respect to any subsequent default or other matter.

20.8 Subcontractors. Nothing in this Agreement shall prevent a Party from using the services of any subcontractor, or designating a third-party agent as one responsible for a specific obligation or act required in the Agreement (collectively subcontractors), as it deems appropriate to perform its obligations under the Agreement; provided, however, that each Party will require its subcontractors to comply with all applicable terms and conditions of the Agreement in providing such services and each Party will remain primarily liable to the other Party for the performance of the subcontractor.

20.8.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made. Any applicable obligation imposed by the Agreement upon the hiring Party shall be equally binding upon, and will be construed as having application to, any subcontractor of such Party.

20.8.2 The obligations under this Section will not be limited in any way by any limitation of a subcontractor's insurance.

## **SECTION 21: ENTIRE AGREEMENT**

This Agreement together with all exhibits, appendices or other attachments, which are incorporated herein by reference, supersedes all prior agreements, proposals, representations, negotiations, discussions or letters, whether oral or in writing, regarding Pacific Power's purchase of Payable Generation from the Eligible System.

## **SECTION 22: NOTICES**

22.1 All notices except as otherwise provided in this Agreement shall be in writing, shall be directed as follows and shall be considered delivered if delivered in person or when deposited in the U.S. Mail, postage prepaid by certified or registered mail and return receipt requested.

<b>Notices</b>	<b>Pacific Power</b>	<b>Participant</b>
<b>All Notices</b>	Pacific Power Volumetric Net Metering 825 NE Multnomah Street	Rogue Valley Sewer Svc. PO Box 3130 Central Point, OR 97502

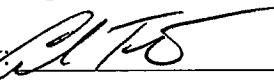
Notices	Pacific Power	Participant
	Portland, OR 97232 Attn: Travis Tanner, Suite 800 Email: oregonsolar@pacificcorp.com Phone: (503) 813 - 5952 Facsimile: (503) 331 - 4442 Duns: 00-790-9013 Federal Tax ID Number: 93-0246090	Attn: Manager Email: ctappert@rvss.org Phone: 541-779-4144 Fax: 541-664-7171
<b>Outage notification:</b>	(same as street address above) Attn: Resource Planning, Suite 600 Phone: (503) 813 - 6090 Facsimile: (503) 813 - 6265	(same as address above)
<b>Payments:</b>		
<b>With Additional Notices of an Event of Default or Potential Event of Default to:</b>	(same as street address above) Attn: Pacific Power General Counsel Phone: (503) 813-7502 Facsimile: (503) 813-7252	Kigin Energy Partners 2006 Lake Harbor Drive Eugene, OR 97408 Phone: 503-225-4925 notice@kiginenergypartners.com

22.2 The Parties may change the person to whom such notices are addressed, or their addresses, by providing written notices thereof in accordance with this Section 22, provided that any requested change to the payee and the address where payments are made shall be submitted in writing at least 15 days before becoming effective and shall provide sufficient information for Pacific Power to determine that the substitute payee is a Qualifying Assignee.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in their respective names as of the date first above written.

Participant

Pacific Power

By: 

By: \_\_\_\_\_

Name: CARL TAPPERT

Name: \_\_\_\_\_

Title: DISTRICT ENGINEER

Title: \_\_\_\_\_

Date: 12/5/10

Date: \_\_\_\_\_

**EXHIBIT B—Participant’s Volumetric Incentive Rate**

**Volumetric Incentive Rate**: The effective rate Pacific Power shall pay Participant equals the difference between Participant’s Volumetric Incentive Rate (as set forth in Pacific Power’s Schedule 136 Tariff) and Participant’s Retail Rate (\$/kWh):

**Volumetric Incentive Rate (VIR):** \$0.495/kWh  
**Participant’s Retail Rate (RR):** \$0.\_\_\_\_/kWh\*  
**Net Volumetric Incentive Rate (VIR<sub>net</sub>):** \$0.\_\_\_\_/kWh

\*The Participant’s Retail Rate is the retail rate in effect at the time of the Billing Period.

**INTERCONNECTION APPENDIX  
FOR  
LEVEL 2 INTERCONNECTION**

This Level 2 Interconnection Appendix (“**Interconnection Appendix**”) is part of the Volumetric Incentive Payment and Interconnection Agreement (“**Agreement**”) between Participant (Rogue Valley Sewer Services) and PacifiCorp d/b/a Pacific Power (“**Pacific Power**”). Terms not defined in this Interconnection Appendix shall have the meaning set forth in the Agreement.

**Article 1.     **Scope and Limitations of Interconnection Appendix****

This Interconnection Appendix shall be used for all Applications to interconnect under the Level 2 System Interconnection Review procedures set forth in the Rules. This Interconnection Appendix contains standard terms and conditions approved by the Commission under which Participant’s Eligible System, which is described in Exhibit A to the Agreement (Application for Solar Incentive Program Interconnection) and which has a Nameplate Capacity of 500 kW or less, will interconnect to, and operate in parallel with, Pacific Power’s system.

**Article 2.     **Review****

**2.1 Initial Review and Additional Review**

In accordance with the Rules, Pacific Power conducted an initial review of the proposed interconnection. The initial review determined that the Eligible System (Pacific Power to select appropriate option):

Meets all applicable requirements; or

Failed to meet one or more applicable requirements, but additional review enabled Pacific Power to determine that the Eligible System could be interconnected consistent with safety, reliability and power quality standards. Participant authorized additional review and Pacific Power conducted such additional review and provided Participant with a good faith, non-binding estimate of the costs of required minor modifications. The required minor modifications are described in the attached **Attachment A**. A non-binding, good faith estimate of the cost and schedule for the required minor modifications is included in **Attachment B**.

**Article 3.     **Inspection and Start-up****

**3.1** Upon completion of initial (and any subsequent) construction of the Eligible System, Participant shall provide Pacific Power the data listed in OAR 860-048-0400 and an As-built Supplement, which shall update information in Exhibit A to the Agreement

(Application for Solar Incentive Program Interconnection) to conform with the installed Eligible Facility.

- 3.2** Participant shall provide Pacific Power with written notice of the anticipated start date for operation of the Eligible System. The anticipated start date shall not be less than ten (10) business days after the date the Participant executes and returns the Agreement to Pacific Power.
- 3.3** An inspection of the Eligible System  is required /  is not required (Pacific Power to select option).
- 3.4** Witnessing of the Eligible System commissioning tests by Pacific Power  is required /  is not required (Pacific Power to select option).
- 3.5 Participant shall not interconnect or operate the Eligible System in parallel with Pacific Power's distribution system unless all of the following have occurred:**
- 3.5.1** Approval of the interconnection by the electrical code official with jurisdiction over the interconnection;
- 3.5.2** Successful completion of any inspection or witnessing of commissioning tests, or both, required by Pacific Power under this Article (successful completion must be documented by written notice from Pacific Power to Participant stating that the inspection and/or commissioning test were completed to Pacific Power's satisfaction, such notice shall not be unreasonably withheld or delayed); and
- 3.5.3** Passing of the planned start date provided by Participant.

If the inspection and/or commissioning tests are not satisfactory, Participant will repair or replace the unsatisfactory equipment or otherwise address any problems and reschedule an inspection and/or commissioning test as appropriate.

**PARTICIPANT SHALL NOT INTERCONNECT OR OPERATE THE ELIGIBLE SYSTEM IN PARALLEL WITH PACIFIC POWER'S ELECTRIC DISTRIBUTION SYSTEM UNTIL PARTICIPANT RECEIVES WRITTEN AUTHORIZATION FROM PACIFIC POWER INDICATING THAT THE INTERCONNECTION IS APPROVED, PARTICIPANT HAS PAID ANY AMOUNT DUE UNDER ARTICLE 6.2 OF THIS INTERCONNECTION APPENDIX, AND THE ELIGIBLE SYSTEM MAY BEGIN OPERATION.**

#### **Article 4. Standards**

Participant will design its Eligible System to comply with the IEEE standards as that term is defined in OAR 860-084-0010. The Eligible System and all modifications and other Interconnection Facilities required to interconnect the Eligible System to Pacific Power's

distribution system shall be designed, maintained and operated in compliance with IEEE standards and in compliance with the National Electric Safety Code and the National Electric Code as adopted by Oregon statute or regulation.

## **Article 5. Eligible System Testing and Maintenance**

Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and equipment. Each Party shall provide Interconnection Facilities that adequately protect the other Party's facilities, personnel and other persons from damage and injury.

Participant shall conduct maintenance and testing as set forth in the Rules, including without limitation:

- 5.1** Annual Test. Participant shall conduct an annual test, at its expense, in which the Eligible System is disconnected from Pacific Power's system to ensure that the inverter stops delivering power to the grid.
- 5.2** Manufacturer-recommended Testing and Maintenance. Participant shall conduct any manufacturer-recommended testing or maintenance at its expense.
- 5.3** Testing for IEEE Compliance. Participant shall conduct any post-installation testing, at its expense, necessary to ensure compliance with IEEE standards as set forth in the Rules or to ensure safety. This includes replacing a major equipment component that is different from the originally installed model.
- 5.4** Records of Testing and Maintenance. When Participant performs maintenance or testing in accordance with the Rules, it must retain written records documenting the maintenance and results of the testing for seven (7) years.
- 5.5** Pacific Power Testing. After interconnection approval is granted, Pacific Power shall have the right to inspect Participant's facility at reasonable hours and with reasonable prior notice to Participant. If Pacific Power discovers that the Eligible Facility is not in compliance with the requirements of the Agreement, this Interconnection Appendix, the Rules, or Commission order, Pacific Power may require Participant to disconnect the Eligible System until compliance is achieved. Participant's electric service may be disconnected by Pacific Power if the Eligible System must be physically disconnected for any reason.

## **Article 6. Modifications**

### **6.1 Minor Modifications (Pacific Power to select applicable option)**

No minor modifications are required.

Pursuant to the additional review conducted by Pacific Power, minor modifications are required to enable the interconnection to be made consistent with safety, reliability and power quality standards applicable to Level 2 interconnection reviews. The Participant shall pay for the cost to procure, install, and construct, operate, maintain, repair and replace any such minor modifications. A description of the minor modifications may be found in Attachment A. A non-binding, good faith estimate of the cost of the minor modifications is provided in Attachment B and totals \$\_\_\_\_\_. Participant shall remit a payment deposit in the amount of the estimated cost of the minor modifications prior to Pacific Power commencing the work required for the minor modifications.

## **6.2 Payment**

Participant shall submit a deposit of \$\_\_\_\_\_ [Pacific Power to insert total deposit amounts for all modifications] at the time it executes and submits the Agreement to Pacific Power. Pacific Power may require progress payments from Participant or Pacific Power may wait until construction and installation of all equipment and facilities are complete and the total actual cost of such equipment and facilities has been established and then provide Participant with a statement indicating whether actual cost was more or less than the deposit paid by Participant. If actual costs exceed the deposit, Pacific Power will invoice Participant for the balance and Participant shall pay any such invoice within 30 days of receipt. If actual costs are less than the deposit, Pacific Power will refund the difference to Participant. Participant shall pay any balance owing prior to initial operation of the Eligible System.



Attachment A  
Required Modifications

[Pacific Power to insert required modifications]

**Disconnect Switch.** The following disconnect switch requirements shall apply (Pacific Power to select case that applies):

The Eligible System must include and maintain a manual disconnect switch that will disconnect the Eligible System from Pacific Power's distribution system. The disconnect switch must be a lockable, load-break switch that plainly indicates whether it is in the open or closed position. The disconnect switch must be readily accessible to the Pacific Power at all times and be located within 10 feet of the Pacific Power meter. The disconnect switch may be located more than 10 feet from the Pacific Power meter if permanent instructions are posted at the meter indicating the precise location of the disconnect switch. Participant shall obtain Pacific Power's written approval of the location of the disconnect switch prior to the installation of the facility. Participant shall install and maintain the required disconnect switch at Participant's expense.

No disconnect switch is required because customer service is 600 volts or less and the Eligible System is inverter based with a maximum rating as shown below:

- (a) Service type: 240 Volts, Single-phase, 3 Wire—Maximum size 7.2 kilowatts
- (b) Service type: 120/208 Volts, 3-Phase, 4 Wire—Maximum size 10.5 kilowatts
- (c) Service type: 120/240 Volts, 3-Phase 4 Wire—Maximum size 12.5 kilowatts
- (d) Service type: 277/480, 3-Phase, 4 Wire—Maximum size 25.0 kilowatts
- (e) For other service types, the Eligible System must not impact the Participant's service conductors by more than 30 amperes.

Attachment B  
Non-Binding, Good Faith Estimate of Modifications Cost and Schedule



# ZONING INFORMATION SHEET

**THIS DOCUMENT IS FOR INFORMATION PURPOSES ONLY! THIS IS NOT A LAND-USE PERMIT.**

**ZONING:** OSR

**ZIS NUMBER:** ZON2011-00844

**SITE ADDRESS:** 3033 KIRTLAND RD

**PROJECT:** ZON2011-00844

**PRIMARY PARCEL NUMBER:** 36-2W-21-1201

**PRINT DATE:** 07/05/2011

**ASSOCIATED LOTS:**

**LAST UPDATED:** 7/5/11 12:00 am

36-2W-21-1202

**Applicant**

Name: TIM COWART

Address: VIA EMAIL

Phone: 541-225-4925

**Owner**

SALYER NORMAN J/KATHRYN A

Address: PO BOX 3085 CENTRAL POINT, OR 97502

**Owner**

SALYER JOE /KATHY

Address: PO BOX 3085 CENTRAL POINT, OR 97502

**PURPOSE OF ZIS / PROJECT DESCRIPTION:**

42kW SOLAR ARRAY\_INFORMATION ONLY

**GENERAL ZIS INFORMATION:**

07/05/2011:

13.3 (254) STRUCTURE: THE SOLAR ARRAY(S) ARE STRUCTURES BY DEFINITION THESE ARE MAJOR IMPROVEMENTS BUILT OF MATERIALS IN A MANNER THAT IS EXPECTED TO REMAIN USEFUL FOR A SUBSTANTIAL PERIOD OF TIME.

BECAUSE THE PROPERTY IS ZONED OSR, A FOREST ZONE, A TYPE 2 DAR IS REQUIRED TO ADDRESS THE APPLICABLE SITING STANDARDS AND GENERAL REVIEW CRITERIA UNDER LDO SECTIONS 4.3.4 (OAR660-006-0025 (5)) AND 4.3.12.

THE SOLAR ARRAY(S) AS REPRESENTED TO STAFF IS NOT A COMMERCIAL UTILITY FACILITY UNDER OAR660-006-0025 (4)(J).

BECAUSE THE SOLAR ARRAY IS A STRUCTURE THE SETBACK REQUIREMENTS OF TABLE 8.2 APPLY. REDUCED SETBACKS MAY BE USED BASED ON LOT SIZE AND WIDTH PER LDO 8.5.2 (A).

THE SOLAR ARRAY MAY BE PERMITTED AS AN ACCESSORY USE BEING ACCESSORY TO THE AUTHORIZED PRIMARY USE ESTABLISHED ON THE LOT. PER THE APPLICANT THE ARRAY WILL PROVIDE POWER TO THE RVSS FACILITY ON TL 1202.

THE A PORTION OF THE ARRAY SERVING THE RVSS LOT IS SHOWN TO BE LOCATED ON THE ADJACENT PRIVATE PROPERTY. ALL APPLICATIONS FOR THE ARRAY SHALL INCLUDE EITHER A LETTER OF AUTHORIZATION (COUNTY FORM) SIGNED BY THE OWNERS OF THE LANDS, OR THE APPLICATIONS THEMSELVES SHALL SIGN THE APPLICATIONS BEING SUBMITTED. FH

**OVERLAY:**

THE AREA IS AFFECTED BY THE 100-YEAR FLOOD HAZARD OVERLAY. A TYPE 2 FLOODPLAIN REVIEW IS REQUIRED AND MAY BE PROCESSED CONCURRENTLY WITH THE REQUIRED TYPE 2 DAR APPLICATION.

**OVERLAY DETAILS:**

**Overlay**

100 Year Floodplain

**Overlay Comments**

Empty rectangular box for overlay comments.



**CONDITION DETAILS:**

Condition

Hold Level

Edite

Status

**REQUIRED APPROVALS**

Yes

Not Met

TYPE 2 DAR FOR OSR SITING STANDARDS AND GENERAL CRITERIA;  
TYPE 2 FP (FLOODPLAIN REVIEW) FOR DEVELOPMENT IN THE FLOODPLAIN.

**ZIS FEE DUE**

Hold w/ Override

Yes

Not Met

ZIS fee must be paid prior to issuance of any permits applicable to this case.

Staff Signature

**Assigned Staff:** Frank Hernandez

ZIS Recipient Signature