

September 24, 2015

Electronic Mail puc.filingcenter@state.or.us joan.grindeland@state.or.us

Filing Center
Public Utility Commission of Oregon
PO Box 1088
201 High St SE, Ste. 100
Salem, OR 97308-1088

Re: UP 324 - August 11, 2015, Public Meeting - Correction to PowerPoint slides

### Filing Center:

At the August 11 public meeting, PGE presented a short summary of the Portland Public Schools Solar Project (PPS Solar). Included in the presentation was a slide that indicated the project cost was below the market reference price, which raised some questions. This occurred because some figures on the slide in question were from an earlier analysis. Ultimately, the incentive funding provided by the Energy Trust of Oregon (Energy Trust) and the Clean Wind Development Fund brings the cost of PPS Solar down to, but not below, PGE's standard avoided cost rate. This letter provides further clarification to the questions raised at the Public Meeting.

First, the project cost of \$58.80/MWh, as reported during the public meeting, was an early draft estimate that was not replaced with the final estimate. The final estimate was \$64.49/MWh, inclusive of all incentive funding. Second, the blended avoided cost of \$68.96/MWh, discussed during the meeting, was provided as information only and was not relevant to this proceeding. Energy Trust eligible subsidies are determined by the standard (non-renewable power) avoided cost, which is equal to the levelized cost of PPS Solar of \$64.49/MWh. Third, PGE discovered a minor error in its work papers. Both the standard avoided cost and the project cost were stated as \$63.49/MWh but the actual cost of each is \$64.49/MWh. The following table summarizes the correct project cost and relevant avoided cost:

Amount (leve	dized \$/I	(IWh)
\$64.49		
\$64.49		***************************************
	\$64.49	7

UP 324 PGE Letter to Commission September 24, 2015 Page 2

Finally, during the August 11 meeting, Commissioner Savage raised a question about whether the Energy Trust provided incentive funding in excess of what was necessary to buy-down the project to PGE's filed standard avoided cost. The incentive provided by the Energy Trust for PPS Solar followed their standard solar incentive guidelines<sup>1</sup> and did not bring the project cost of PPS Solar to a level below the standard avoided cost.

Attachment A provides a redline/strikeout version of the August 11 public meeting handout with corrections to the avoided cost and project cost listed on slide 4. Attachment B provides an updated/clean final copy of the August 11 public meeting handout.

We thank you for the opportunity to clarify our presentation at the August 11 Public Meeting. Should you have any questions or require further information, please call me at 503-464-7580.

Sincerely,

Patrick G. Hager

Manager, Regulatory Affairs

PGH/sp encl.

cc: CUB, Sommer Template

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<sup>&</sup>lt;sup>1</sup> Energy Trust cash incentives are allocated on a system basis based on nameplate capacity, and at the time of PGE's application, incentive funding was \$1.40 per watt for systems of 0-25 kW and \$1.40-\$0.80 per watt on a declining scale for systems 26-250 kW, with a maximum of \$1,200,000 for this project.

### Attachment A

Redline Handout from August 11, 2015, Public Meeting

### Attachment B

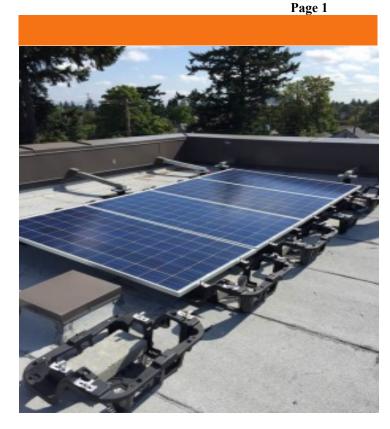
Final Updated Handout from August 11, 2015, Public Meeting

# Portland Public Schools Solar Project

OPUC Public Hearing
UP 324

August 11, 2015

Presenter: Joey Ross



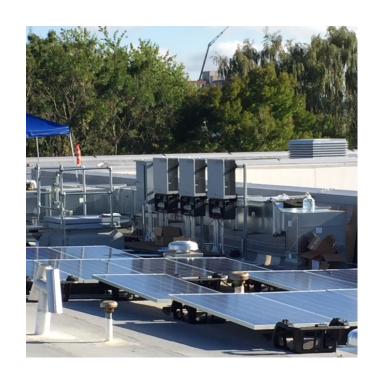


### **Overview**

Initiated in Spring 2015, this project will install mono-crystalline solar electric systems on six Portland public schools (PPS).

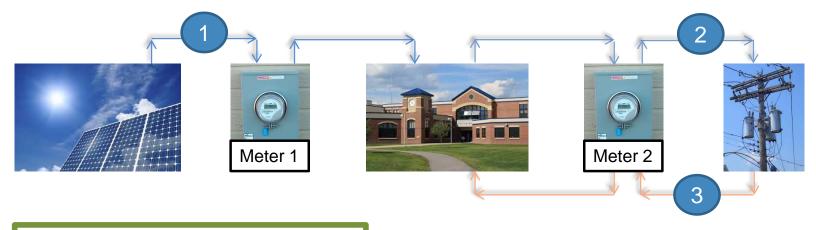
- Total Project Cost: \$4.6M (\$3.80/watt)
- Nameplate Capacity: 1.2 MW<sub>DC</sub>
- Placed In Service: September 2015
- Financial Structure: Sale-Leaseback

This project will be used in aggregate with other resources to meet PGE's Renewable Portfolio Standard requirement.



# Flow of Electricity

1) Electricity produced by the solar panels is directly fed to the school. 2) Any electricity produced by the solar panels that is not used by the school goes to the grid.



The school pays the standard retail rate for all electricity used, regardless of where it is generated.

3) If the electricity produced by the solar panels is not enough to meet the school's need, the school receives energy from the grid.



# **Project Financials**

Portland Public Schools	
Total Project Cost Design & Build Development	<b>\$4.6M</b> (\$3.80/watt) \$3.8M (\$3.20/watt) \$0.8M
Incentives Energy Trust of Oregon (ETO) Clean Wind Development Fund (CWDF)	\$1.0M \$2.0M
Repurchase Amount	\$1.0M (Year 6)
Standard (non-renewable) Blended Avoided Cost	\$64.49 <mark>68.96</mark> /MWh
Project Cost	\$64.49 <mark>58.80</mark> /MWh

### **Contributions and Benefits**

#### **PGE Customers**

- Annual revenue requirement recovered through Sch. 122
- Customers receive solar electricity at a cost that is approximately equal to non-renewable power on a levelized \$/kWh basis

#### **ETO**

- \$1M contribution
- 26% of renewable energy credits (RECs) retired on behalf of PGE customers

#### **CWDF**

- \$2M contribution
- 52% of RECs retired on behalf of CWDF customers

#### **PPS**

- Rent payments for hosting the site
- 22% of RECs assigned to PPS

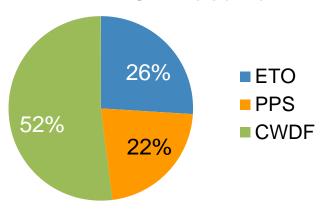
### **REC Distribution**

**Years 0-5** 100% PPS

**Years 6-20**44% ETO 56% CWDF

**Years 21-25** 100% CWDF

### **REC Allocation**



REC distributed according to contribution



# **Questions**



# **Appendix: REC allocation summary**

Total RECs Generated	29,633	
	REC Allocation	
	# of RECs	% of Total RECs Generated
PGE Customers Through		
ETO	7,823	26%
CWDF	15,430	52%
PPS	6,380	22%
PGE Customers*	1,956	7%
Total	<u>31,589</u>	<u>107%</u>

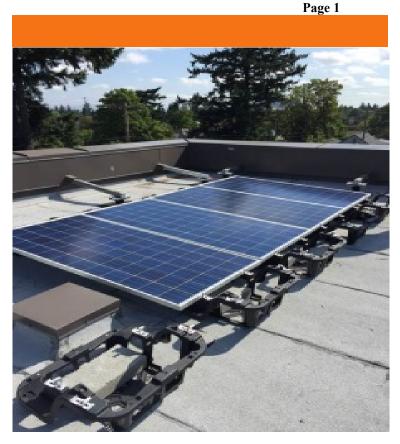
<sup>\*</sup>Additional bundled RECs purchased by PGE with below the line funds as agreed to in UP 324

# Portland Public Schools Solar Project

OPUC Public Hearing UP 324

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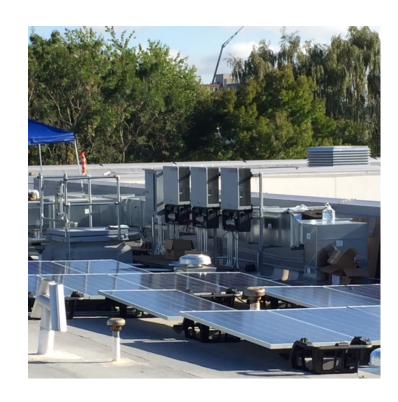


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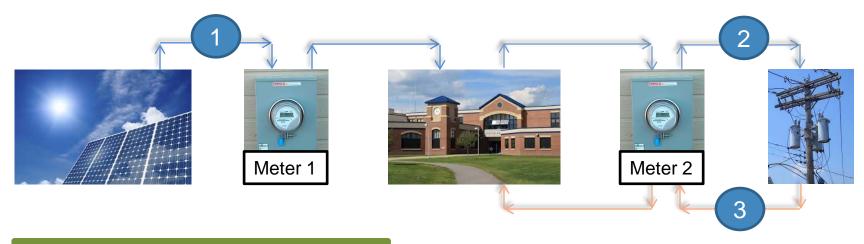
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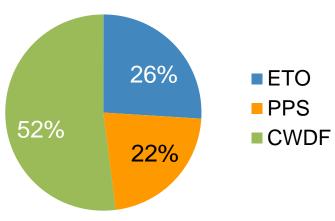
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