

PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: February 7, 2017

REGULAR \_\_\_\_\_ CONSENT X EFFECTIVE DATE February 7, 2017

DATE: January 30, 2017

TO: Public Utility Commission *JAR*

FROM: JP Batmale

THROUGH: Jason Eisdorfer *JE* and John Crider *Jc*

SUBJECT: PORTLAND GENERAL ELECTRIC: (Docket No. UM 1020) Staff review of the Renewable Development Fund's three proposed category 2 projects requesting more than \$400,000 in voluntary funds.

**STAFF RECOMMENDATION:**

As set forth in this memorandum, Staff recommends that the Commission approve three renewable projects receiving grant funding in excess of \$400,000 from Portland General Electric Company's (PGE) Renewable Development Fund (RDF) program.

**DISCUSSION:**

Issue

Whether to approve the three renewable projects receiving grant funding in excess of \$400,000 from PGE's RDF program.

Applicable Rule or Law

ORS 757.603 requires the electric utilities to provide a portfolio of rate options to residential customers. Commission Order No. 16-156 created a Renewable Fund Review Process which, in part, directed Staff to review renewable energy projects requesting more than \$400,000 in voluntary grant funds from PGE's RDF. The Order further adopted Staff's recommendation to approve PGE's RDF Guidelines delineating the Company's procedures for reviewing and processing such projects.

## Analysis

### *Background*

The voluntary green power programs of PGE and Pacific Power (PAC) are designed to collect funds that the companies can issue as grants to eligible renewable energy projects. In this way the voluntary programs contribute directly to the development of new renewable resources that would not have otherwise been built. These grants are overseen by the Portfolio Options Committee (POC).

In 2014 PGE combined its Clean Wind Development Fund and its Green Source Development voluntary programs into a single grant program called the Renewable Development Fund (RDF). By the beginning of 2016 the RDF had accumulated over \$11 million in unissued grant funds.<sup>1</sup> PGE and Staff agreed to develop a process that allowed for the more regular issuance of RDF grants, much like PAC had been doing for several years with its voluntary funded grant programs.

In Order No. 16-156 the Commission approved PGE's RDF eligibility guidelines and also approved a Renewable Fund Review Process (Review Process) for projects requesting voluntary grant funds. As a result, PGE established two categories of projects. Those projects seeking \$400,000 or less from the RDF program would be considered as Category 1 projects and be reviewed by Commission Staff. Projects seeking more than \$400,000 from the RDF would be considered as Category 2 projects. These larger projects would require both Staff review, and approval from Commission, before PGE issued the RDF funding for the project.

In December 2016, PGE accepted 17 Category 1 projects and submitted three Category 2 projects for review and approval by the Commission.

### *Details*

The three Category 2 projects seeking RDF program grants are:

- City of Salem, Willow Lake Water Pollution Control Facility (Salem)
- Union Labor Retirement Association's Manor Properties (Manor)
- Oregon Military Department (OMD)

The table below provides a very brief synopsis of each of the Category 2 projects.

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<sup>1</sup> See Order No. 16-156

**Table 1**

<b>Project</b>	<b>Technology</b>	<b>kW Installed</b>	<b>RDF Grant \$</b>	<b>Total Project Cost</b>	<b>Blending with PPC Funds Approved? <sup>2</sup></b>
Salem	Biogas CHP	1,100	\$3,000,000	\$ 9,550,000	Yes
OMD	Solar	610	\$ 842,589	\$ 1,980,930	No
Manor	Solar	244	\$ 542,000	\$ 1,782,028	No

In total, these projects are seeking \$4,384,589 in funding from the RDF program. All of the projects meet the eligibility criteria established in Order No. 16-156.<sup>3</sup>

The amount of funds being sought represents 36.5% of the \$12.0 million in RDF program funds currently available. Only the Salem project will be combining RDF program funds with Energy Trust incentives. The Salem project was “grandfathered in” as part of Order No. 16-156 (See Attachment C to the Staff memorandum adopted by Order 16-156). This exemption was provided because of the Salem project’s previous work with Energy Trust prior to the Commission decision in April 2016 to explore the appropriateness of commingling or blending voluntary and public purpose charge funds.

All of the three projects pass the RDF screens established by PGE and Commission Staff. In addition, they each meet the spirit of the RDF in that these projects have a distinct public benefit component and are supporting new projects. None of the Renewable Energy Certificates (RECs) associated with these projects will be sold. The owners of the OMD and Manor projects will retain the RECs and have committed to not sell them. For the Salem project, a majority of the RECs will go to Energy Trust, depending on the level of above market costs Energy Trust covers. PGE has no plans to claim the remaining RECs and the City of Salem has stated it will not seek to sell or monetize the RECs from the project.

It is important to note that the Salem project will not be completed within 18 months of funding approval. However, PGE granted an extension to this project, as is allowed in PGE’s RDF Guidelines.<sup>4</sup> Staff found that PGE applied its extension authority correctly and believes the extension is appropriate given the project’s complexity.

<sup>2</sup> Commission Order No. 16-123 halted the blending of voluntary funds (RDF grants) with public purpose charge funds (Energy Trust incentives) *except* for select “grandfathered” projects. If a project was on this “grandfathered” list the project could still blend voluntary and public purpose charge funds. The Salem project was on this list and received a yes. The other two projects were not on this list and received a no.

<sup>3</sup> See Attachment A for eligibility analysis.

<sup>4</sup> See Commission Order No. 16-156, Project Requirement #3 on page 8

Lastly, Staff conducted a basic analysis comparing all three projects to a “hypothetical” commercial solar facility.<sup>5</sup> The facility would be located in PGE territory and cost the same amount as the RDF grant.<sup>6</sup> Staff used a benchmark cost of \$2.13/watt for the hypothetical commercial solar system.<sup>7</sup> The table below offers a summarized comparison.

**Table 2**

Project	Project kW	Est. Project Annual kWh	Total RDF Grant \$	Hypothetical Solar System Size (kW) base on RDF Grant Amount	Hypothetical Solar System Production (kWh)
Salem	1,100	7,726,300	\$ 3,000,000	1,408	1,273,950
OMD	610	757,139	\$ 842,589	396	458,619
Manor	244	282,101	\$ 542,000	254	294,167

All three Category 2 projects compared favorably in terms of installed system size per RDF grant dollars invested and in terms of overall production. It is important to point out that both the OMD and Manor are solar projects compare favorably in terms of output. The OMD project consists of solar installations at three mission-essential military buildings. The Manor project is a combination of three solar systems installed at multi-family housing facilities for union retirees.

Staff finds that these projects have tangible economic benefits along with harder to quantify non-energy benefits to the community and environment. Staff concludes that the RDF program funds are being well-spent on these three projects. Staff finds that the process developed to review these projects worked well. Staff plans to work with PGE before the next round of grant funding to explore further ways to streamline the review process.

### Conclusion

Staff believes the new process worked well, that PGE selected three good projects to fund with voluntary program participant funds and that these projects should be

<sup>5</sup> Solar output based on free online tool from NREL, PVWatts [www.pvwatss.nrel.gov](http://www.pvwatss.nrel.gov). Staff used TMY3 data for a site located in Hillsboro, OR. The system array type was fixed (open rack) with losses of 14%. System tilt and azimuth were 20° and 180° respectively.

<sup>6</sup> This approach of using only voluntary funds invested, rather than total system cost, resembles the Utility Resource Cost Test.

<sup>7</sup> Benchmark commercial system cost used 2016 Q1 data from NREL’s report, “U.S. Solar Photovoltaic System Cost Benchmark,” September 2016, page 20.

Docket No. UM 1020  
January 30, 2017  
Page 5

approved to receive RDF program funding in the amounts listed in Table 1.

**PROPOSED COMMISSION MOTION:**

Approve the granting of RDF program dollars by PGE to the three renewable projects as set forth in Staff's memorandum.

Portland General Electric UM 1020 Approval of Grants for Renewable Projects

## **ATTACHMENT A**

### **Requirement Screen**

	<b>Salem WWTP Biogas CHP</b>	<b>Oregon Military Department Solar</b>	<b>Union Labor Multi- Family Solar</b>
New Project	X	X	X
Eligible Renewable Tech	X	X	X
Directly Connected to PGE	X	X	X
Project Complete w/in 18 months	Granted Exception	X	X
Does not exceed 33% of RDF	X	X	X
< 10MW in size	X	X	X
Production Data Availability	X	X	X

### **Preference Screen**

	<b>Salem WWTP Biogas CHP</b>	<b>Oregon Military Department Solar</b>	<b>Union Labor Multi- Family Solar</b>
PGE Service	X	X	X
PGE Customer Ownership	X	X	X
Public/Non-Profit Involvement	X	X	X
REC not sold	X	X	X
Multi-Family / Low-Income	n/a	n/a	X
Oregon, PacNW Materials when possible	X	X	X
Education and Public visibility	X	X	X
PGE service territory involvement	X	X	X
Local Environmental and/or Community Benefit	X	X	X
Leveraging other funds	X	X	X
SGA not funded by RDF	X	X	X
For Profit buying Green-e REC's	n/a	n/a	n/a

### **Additional Consideration Screen**

	<b>Salem WWTP Biogas CHP</b>	<b>Oregon Military Department Solar</b>	<b>Union Labor Multi- Family Solar</b>
Diversity of Projects, in totality	X	X	X
Application "Reasonableness"	X	X	X
Thoroughness of Design	X	X	X
Budget Feasibility	(requires multiple sources)	X	(high solar cost)
Project team qualifications	X	X	X
Low project complexity	(finances; tech)	X	(finances)
Readiness	X	X	X