Board Decision

Authorizing Funds for Black Cap Solar PV Project

August 22, 2012

Summary

Authorize $600,000 of incentive funds toward the above-market cost of a 2.56 megawatt (MW_{DC}) solar photovoltaic facility in Lakeview, developed by Obsidian Finance Group for Pacific Power.

Background

- Goal 2 of the 2010-2014 Strategic Plan is to accelerate the rate at which renewable energy resources are acquired, helping to achieve Oregon's 2025 goal of meeting at least eight percent of retail electrical load from community-scale renewable energy projects.

- The nameplate capacity of the photovoltaic array will be 2.56 MW_{DC}. The project will generate 0.57 average megawatts per year.

- Under Oregon's Solar Capacity Standard established in 2009 by House Bill 3039, PacifiCorp (dba Pacific Power) is obligated to install specific amounts of photovoltaic capacity by 2020. This project will achieve 23% of Pacific Power's assigned goal. The legislature amended the law in 2010 to specify that Energy Trust can support the above-market costs of such projects.

- Pacific Power brought this project to Energy Trust under our Master Agreement for renewables. The Master Agreements with the electric utilities ensure that proposed projects are examined on the same basis as other projects the utilities are considering, and that Renewable Energy Certificates (RECs) that Energy Trust acquires for these projects will benefit ratepayers.

- This project was selected as a result of a competitive RFP Pacific Power issued in late 2011. Pacific Power awarded the bid and secured a financial investor.

- Pacific Power requested Energy Trust funding for this project in January 2012. At that time, Energy Trust had no funding available to support the project.

- In Q2 2012, an additional $3.4 million of Energy Trust renewable funds for Pacific Power territory became available when two dedicated projects (one hydro, one biopower) were canceled and some funds remained unallocated after Energy Trust's non-solar project solicitation in Q1 concluded. Of the available funds, $2.8 million would be used for a second solicitation for non-solar projects, leaving $600,000 available for this project.

- An incentive of $600,000 is supported by staff's determination of the project's above market cost.

- The project is under construction and scheduled for commercial operation in October 2012 or earlier.

- Through the Oregon Public Utility Commission, Pacific Power has requested cost recovery for its investment in this project. Its revenue requirement will be reduced in a future filing to reflect the value of the Energy Trust incentive. Further detail is provided on this point in the Discussion section, below.

- Upon hearing that Pacific Power's rate recovery will be adjusted to reflect the incentive amount, the majority of Renewable Advisory Council members supported funding this project.

Discussion

- This is the first large-scale solar PV project in Pacific Power territory, providing the utility valuable experience operating the technology and integrating the power into its network.

- The project consists of ground-mounted crystalline PV modules installed on single axis trackers near Lakeview, Oregon. Tracking the sun will boost generation approximately 20% compared to a fixed-tilt array.

- Pacific Power will own the land, and will be the long-term owner/operator of the project and recipient of 100% of the output. The system interconnects directly with Pacific Power's system. There is no transmission or Power Purchase Agreement. The power and energy value is calculated at their system avoided cost rate.

- The project has a 50% Business Energy Tax Credit (BETC) precertification, received before the BETC program was capped by the legislature in 2011, and has secured a pass-through partner.

- The project is being developed by Obsidian Finance Group for Pacific Power. Upon completion, a bank will purchase the system from Obsidian and lease the equipment back to Pacific Power. Pacific Power will make lease payments to the bank for 15 years, with buyout options in years 5 and 10. The bank will claim the federal investment tax credit, the BETC pass-through value and accelerated depreciation including 50% bonus depreciation in 2012. Those credits and benefits will be passed back to Pacific Power through a reduced lease rate. Pacific Power will pay ongoing operational costs throughout the 25-year life.

- Initially, Pacific Power requested a $4,500,000 incentive for this project consistent with its estimation of over market costs. This amount is significantly higher than incentives we have paid in the past for large solar projects, and higher than the current standard residential/commercial per-watt rates.

- Staff recommends an incentive of $600,000, which is 60% of the above market costs calculated by staff for this project. In addition, it allows reinvestment of $2.8 million in funding to acquire non-solar projects in Pacific Power territory through a robust competitive process planned for Q4 2012.

- This incentive equates to $0.23 per $watt_{DC}$, which is 30% of the residential rate of $0.75 per $watt_{DC}$ for Pacific Power customers and less than the incentive rates provided to previous large scale solar projects: $0.85 per $watt_{DC}$ for Christmas Valley (5.88 MW_{DC}, 2012); $1.00 per watt for Baldock (1.75 MW_{DC}, 2010); $1.15 per watt for enXco (2.84 MW_{DC}, 2009). The incentive amount for Black Cap is limited by available funding and therefore should not be considered a precedent for future incentive calculations for solar.

- 100% of the RECs for this project will be retired by Pacific Power for the benefit of its customers in compliance with Oregon's Renewable Energy Standard (RES) and Solar Capacity Standard. Under Oregon law, Pacific Power can expect to receive 2-for-1 credit for these solar RECs toward the RES.

- The incentive will be paid to the bank upon project commissioning. The value of the incentive will be returned to Pacific Power via lower lease payments and buyout option costs, if exercised. The funding agreement will have standard performance and payback provisions.

- On March 1, 2012, Pacific Power filed for an increase in rates as part of a general rate case before the Oregon Public Utility Commission (Commission). The costs associated with the project were reflected in Pacific Power's filing.

- On July 12, 2012, Pacific Power, Commission staff, the Industrial Customers of Northwest Utilities (ICNU), the Citizens' Utility Board of Oregon (CUB), and the Kroger Co. (collectively the Stipulating Parties) entered into a partial stipulation. The Stipulating Parties agreed "that the Company's investment in the Black Cap solar resource as presented in the Company's initial filing in this case is prudent and should be included in the Company's revenue requirement."[1] The partial stipulation is pending Commission approval. No party to the proceeding (UE 246) objects to the partial stipulation.

- Because the calculation of the revenue requirement of the project in the rate case does not reflect any funding from the Energy Trust, upon an agreement with Energy Trust for funding, the Company will file for deferred accounting to defer the difference (reduction) in the lease payment from the amount reflected in the rate case and the actual lease payment. The deferral will begin on January 1, 2013, the date rates become effective in the general rate case, and continue until the actual lease payment amount, inclusive of Energy Trust's funding, is reflected in base rates, presumably in the Company's next rate case. This treatment will ensure that Pacific Power's customers receive the benefit of Energy Trust funding.

[1] *In the Matter of PacifiCorp dba Pacific Power's Request for a General Rate Revision*, Docket No. UE 246, Partial Stipulation at ¶11 (July 12, 2012).

Project Financial Summary - NPV Basis

	Project Capacity (MW_{DC})		2.56
	Annual Output (MWh)		4,984
	Evaluated Resource Life (Years)		25
NPV Revenues:	Power and energy value	$	5,259,146
	BETC pass through	$	2,881,005
	Tax benefits	$	3,387,134
	Total NPV revenues	$	11,527,285
NPV Costs:	Capitalized construction cost	$	9,920,517
	Operations expense	$	952,376
	Maintenance Expense	$	182,066
	Property tax	$	974,948
	Transmission Expense	$	-
	State and federal taxes	$	114,640
	Total NPV Cost	$	12,144,548
Net Above Market Cost		$	(617,263)
Net Above Market Cost After Tax Adjustment		$	(1,001,335)

- The Master Agreement process calls for funding requests in the year preceding proposed funding. Because of the timing of this request and constrained Pacific Power funds, this project was not contemplated in the 2012 budget. Energy Trust funding for this project would be considered an exception to our normal funding process, and is only possible due to the coincident cancelation of other projects. Future utility projects utilizing the Master Agreement will be expected to approach Energy Trust prior to October 1, much earlier in the project's development and therefore aligned with our budget planning cycle.

- Funding for this project offers several benefits: 1) it allows Energy Trust to immediately repurpose some of the funds that recently became available, 2) it acquires generation at a lower cost than all previous solar projects, and 3) it supports Pacific Power in its compliance with the solar mandate.

Recommendation

- Authorize $600,000 for the 2.56 MW_{DC} Black Cap Solar PV project, subject to Pacific Power demonstrating that the funding is reflected as a reduction to the cost of the project included in rates.

RESOLUTION 639

AUTHORIZING FUNDS FOR BLACK CAP SOLAR PV PROJECT

Whereas:

1. **PacifiCorp (dba Pacific Power) is acquiring 2.56 megawatts (MW_{DC}) of solar photovoltaic generating capability near Lakeview, Oregon, to count toward its state Renewable Energy Standard and Solar Capacity Standard mandates.**

2. **This project has already secured Business Energy Tax Credit precertification, a major barrier to renewable energy projects in Oregon.**

3. **The above-market cost on a net-present value basis over 25 years has been estimated by Energy Trust staff to be $1,001,335.**

4. **Staff recommends an Energy Trust incentive of $600,000, representing approximately 60% of the above-market cost. Pacific Power supports this incentive level.**

5. **Pacific Power will retire 100% of the Renewable Energy Certificates (RECs) from the project for the benefit of its customers.**

It is therefore RESOLVED that the board of directors of Energy Trust of Oregon, Inc. authorizes:

1. **An incentive of up to $600,000 for a 2.56 MW_{DC}, ground-mounted solar photovoltaic facility near Lakeview, Oregon.**

2. **An agreement that Pacific Power will retire the RECs from this project for the benefit of its ratepayers and for compliance with Pacific Power's renewable energy generation and solar capacity obligations to the state.**

3. **The executive director to negotiate and sign an agreement consistent with this resolution.**

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed: [list name(s) and, if requested, reason for "no" vote]