Board Decision
Authorizing Funds for the Tioga Energy Inc., City of Gresham Photovoltaic Project

November 12, 2008

Summary

Authorize up to $571,000 for the above-market costs of a 420 kW solar photovoltaic array for the City of Gresham Waste Water Treatment Plant.

Background

- The City of Gresham and Tioga Energy, Inc. propose to form a limited liability company (Tioga Solar VI, LLC) to develop a 420 kW ground-mount (nameplate capacity) solar photovoltaic array for the Gresham Waste Water Treatment Plant. The project is scheduled to be completed before the end of 2009.
- The plant currently gets about half its electricity from an Energy Trust biogas project. With an additional eight percent of the facility's electric needs served by the proposed solar project, almost sixty percent of the facility demand will be served by Energy Trust renewable energy projects.
- Tioga Energy, Inc., will bring outside lenders and/or investors into the LLC (the lender/investors will likely take title to the project as security). The City would buy the project's power. The project will be interconnected to Portland General Electric to supplement the project's output or take any power the waste water plant doesn't need.
- Total project costs are projected to be $2,727,009. Staff estimates the above-market cost of the project to be $839,292.
- We propose to pay Tioga a custom incentive of up to $570,761 for 420 kW, $1.36 per watt. This is significantly less than the $1.75 watt standard incentive for government projects in PGE service area. The proposed payment is 68% of the full above-market costs.
- The incentive payment would be paid into escrow and disbursed over the first five years of commercial operation, based on project output.
- It is likely that the City of Gresham will exercise an option to purchase the system from the LLC after seven years of operation.
- The Energy Trust green tag policy allows Energy Trust to take ownership of green tags at least in proportion to its contribution to above-market costs, or match the projected green tag market price if the market price is higher than the value offered by the Energy Trust.
- For this project, Energy Trust will retain the green tags for years 3 to 20, or 90% of the total green tags. This project was proposed under the custom incentive track for the solar program for 2008, which started with a pre-defined ownership for years 3 to 20.
- Per the green tag policy the Energy Trust could take less than 90% of green tags to match the 68% of the above-market costs we are funding. However, the system owner accepted the program's standard share.

Discussion

- The project would be one of the largest photovoltaic systems in Oregon, and one of the first public-private ventures in solar development.
- The incentive per watt is significantly lower than our standard offer for government photovoltaic projects, and would help demonstrate the potential for reducing incentive rates with larger scale of projects.
- Waste water treatment plants with large areas of open land and large onsite energy usage are promising sites for photovoltaic ground mount projects because they are ground-mounted and have lower project first cost per installed capacity. We therefore welcome the opportunity to develop this large-scale example.

Recommendation

Staff recommends the Board authorize up to $571,000 for the Tioga project by approving resolution #490.

RESOLUTION 490

AUTHORIZING FUNDS FOR THE TIOGA ENERGY INC, CITY OF GRESHAM SOLAR PHOTOVOLTAIC PROJECT

WHEREAS:

1. **Tioga Energy, Inc. proposes a 420 kW (nameplate capacity) ground-mount solar photovoltaic array for the Gresham Waste Water Treatment Plant, to be completed no later that August 2009.**
2. **Total project costs are projected to be $2,727,009. Staff estimates the above-market costs at $839,292.**
3. **At 420 kW and as incentive of $1.36 per watt, the project is significantly less costly than Energy Trust's standard offer for government photovoltaic projects.**
4. **The project would be one of the largest photovoltaic projects in Oregon, at a per-watt cost that is significantly lower than Energy Trust's standard offer for government photovoltaic projects.**

It is therefore RESOLVED:

The board of directors of Energy Trust of Oregon, Inc.:

1. **Authorizes up to $571,000 to offset the above-market costs of the Tioga Energy, Inc. – City of Gresham photovoltaic project.**
2. **The executive director is authorized to enter into contracts consistent with this resolution.**

Moved by: Seconded by:

Vote: In favor: Abstained:

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