EnergyTrust of Oregon, Inc.

Briefing Paper

Using Pacific Power funds for large scale solar

April 16, 2008

Summary

We have been approached by developers seeking funds to support large ground mount (2-3 MW) solar electric installations with Pacific Power. We seek RAC input on whether Energy Trust should consider investing 2008 funds in these types of project for Pacific Power, and if so, what process and criteria should be used to solicit and approve such projects.

Background

Solar Program

In the 2008 budget for the Solar program no funds were allocated for very large PV projects for pacific Power. Constrained funds across all programs had us focus on the core program to support on-site, net–metered installations across a large variety of customers and numerous installers.

We closed the Open Solicitation program to solar applications, and directed all solar projects to apply to the Solar Electric program for standard incentives. Total incentives per Pacific Power customer are capped at $100,000. Press announcements by developers and RFP results led us to believe relatively little to no funds would be needed to support such very large PV projects.

The 2008 Solar incentive budget is expected to be fully committed before year end. The possible end of the 30% investment tax credit has highly motivated PV customers. In March 2008 we lowered the higher nonprofit/government incentive to the standard commercial rate in face of unsupportable demand. This action appears to have lowered demand to align with available funds.

Very large PV Projects

We do not currently have an open process for accepting large scale solar applications for Pacific Power. Several wind developers have started proposing solar projects as the next best alternative. They say the program caps are too diluted for larger projects and not sufficient to cover the full above-market costs.

The announced, non-subsidized projects have yet to happen. The experience to date with PV projects larger than 100KW for PGE indicates that economies of scale are not as robust as we thought. The current data from California indicates that very large projects are not as cheap as claimed. The preliminary projects we been have shown for 2 and 3 MW installations may legitimately need support.

Budgets

Community wind projects continue to slip. Last Friday we ended funding for a project that missed all its final deadlines. The alternatives in the pipeline are all 2009 or later projects. The proposed one-year extensions of the production tax credits for wind are uncertain and may come too late for our projects to act.

The Open Solicitation program is seeing great interest in hydro and, finally, geothermal. However all prospects are for 2010. The near-term budgets will not be fully spent, but it remains early in the year.

In Biomass there are several projects being considered that can fully utilize all funds for Pacific Power. It is possible more may be needed to support the projects being examined.

All the RE program budgets will decrease in 2009 as a result of the planned spending of carryover funds. For Pacific Power the average drop is 38% and the solar program is cut 15.[1] The relative fall-off is higher for other programs than for solar.

Goals

Goals are set by program based on expected costs by technology and market conditions. Typically, solar is our highest cost per kWh to support. If funds are shifted from other programs to support PV, either goals will have to be lowered or the subsidy to PV would need to be equivalent to the lower levels forecast for community wind. The Energy Trust Board must approve changes in goals and transfers of funds from one program to another.

Discussion

The issue at this point regards Pacific Power only. Perhaps as much as $2.65 million may be uncommitted in 2008 for Pacific. To follow are the pros and cons of moving these funds to support large PV installations. The PV installations in question would be greater than 1 MW and standard-offer QF projects selling power directly to Pacific Power.

Arguments in favor

- Cheap kWh generation – While it may not be as cheap as we first thought, a very large solar array should be cheaper per-kWh than what we fund in PV already. If it as cheap as what we hoped for community wind, we could shift money without changing our generation goals.
- Long term DG benefit – These projects would give Pacific Power experience with solar's generation profile and interconnection issues as a resource directly connected to its wholesale supply system. It could encourage the utilities to look for opportunities for distributed small solar power plants throughout their networks. Without our support the utilities and developers might delay their learning process several years until PV costs decrease. Earlier experience in wind set the stage for today's robust involvement by utilities in large wind.
- Potential for 2008 completion – These projects present the opportunity to spend our budget this year instead of continuing to carry unspent funds forward to future years. The disrupted turbine market is looking as if it won't be settled until 2010. It is unclear whether half of the prospects in OSP can be ready before 2010. In the past we have regularly shifted funds to what is hot.
- Tax credit uncertainty - The 30% Federal Investment Tax Credit for solar is set to expire after 2008, creating a deadline that would require everyone to act quickly. This may or may not be an opportunity to gain a project that would not occur otherwise.

[1] During last fall's budget planning, PGE indicated it intended to offer a RFP for renewable resources. ETO and PGE agreed that if this RFP surfaces projects and ETO has sufficient unspent funds, ETO would evaluate supporting such projects. This RFP is now out and it is open to large PV projects. There is no comparable RFP for Pacific Power. Staff remains comfortable addressing unspent PGE funds when the RFP results are known.

Extending the 30% federal tax credit beyond 2008 remains quite uncertain. A bird in the hand, as they say, is a good thing.

Arguments against

- Conflicts with program design – Our Solar program strives to increase the number of consumers that decide to invest in solar, and to develop the market infrastructure that delivers solar products to the consumers. Development of large scale solar plants that deliver power directly to the utilities does contribute to the RPS and growth of the RE markets, but does not support a wide and broad involvement in solar. Using the same funds to support standard program offers could expand the current program.
- Challenge to replicate – If we fund a project in 2008, we would want it to be replicable. The 2009 budget currently has no funding for large scale solar. Resources to support more very large PV projects would need to come from future community wind and OSP projects. We could be establishing an expectation we can not meet in the future.
- Real trade offs – Shifting excess money to large scale solar comes after we stopped accepting new government PV projects through the nascent 3rd party ownership incentive. We did this after all funds for these higher incentives were reserved. Additional funds would allow the program to re-open this incentive.
- Relative funding – Solar will receive 29% of the 2008-2009 budgets, relatively the highest share among programs. Banking unspent funds from prior years has allowed the larger budgets today for all the small-scale programs. Continuing this will ease the transition to relatively lower funding in the future.
- Inclusion – Larger on-site projects may be as competitive but are not considered. The current program for Pacific Power excluded these because it was forecast that the budget could be fully allocated with projects less than 100 kW. Any consideration of large projects ought to be open to these to also see what is really possible.
- Too late – Ideally to fully stimulate the market a solicitation would be done in 2007 and selection completed by now. This would allow potential sponsors the time try to put together several project ideas and hone these to the best one or two. It would allow government entities the extra time they need. A request at this point will get just a few responses.
- The tax credit will get extended – In the end the tax credits always get extended. Holding firm will allow staff and the market to respond in an orderly, rational way.

Process and Criteria

If we were to consider opening up funding to large PV projects, staff would propose allocating up to $1 million in 2008 funds. This would provide flexibility to use uncommitted funds for smaller OSP or biomass projects that have yet to apply or need more funds than preliminary reviews suggest. If no such projects came forward or the preliminary reviews are correct, the funds would roll to 2009 to ease the drop-off in funds.

There is not much time to allow for selection. A full RFP could not be conducted in time to select a project that can be completed by the end of the year. Staff would propose the following expedited timeline and for fairness be open to large, on-site projects:

- Propose a maximum rate and a deadline of April 30th. The maximum rate would be based on the expected costs for the alternatives from other programs.

- Respondents would apply using forms for solar previously established through the Open Solicitation Program.

- Only projects that can guarantee a 2008 completion would be considered. A non-refundable deposit would secure the guarantee.

- Above-market costs reviews and evaluations of the project team would be done in time to present to the board at its May 14th meeting.

Selection criteria could include:

1. Lowest above-market costs, per KWh

2. Project experience

3. Assured financing

4. Guaranteed 2008 completion

5. Ability to meet Energy Trust generation goals

Next Steps

Staff is torn, but leans to saying no to doing this at this time. The short time allowable to solicit projects and do reviews disallows a broader set of responses over a wider range of market actors. The projects we've heard about remain viable in 2009, if an extension of the tax credit is passed. In the past Congress has always gotten around to extending the credits. It seems worth taking the risk they will do so again. Waiting until the budget process in the Fall allows us to know more about other program budgets and the real tradeoffs to supporting large PV projects.

We seek input from the RAC on this issue.