Briefing Paper
NW Natural Solar Thermal Pilot

September 1, 2010

Summary

NW Natural is proposing a pilot program to subsidize the above-market cost of solar thermal systems to produce hot water for homes.

Background

- There is a disparity between the electric incentives Energy Trust can pay for solar thermal systems and solar photovoltaic systems. This disparity is based on how each is defined by SB 1149, which does not cover natural gas utilities.
- Under SB 1149, renewable energy is defined as facilities that use renewable fuels to generate electricity. Solar thermal systems are, by default, treated as energy efficiency because they do not generate electricity. Efficiency incentives are limited by SB 1149's cost-effectiveness requirement.
- Solar photovoltaic systems do generate electricity, and so are treated as renewable energy resources. They are not limited by SB 1149's cost-effectiveness requirement. Energy Trust funds their above-market costs.
- Energy Trust's gas programs are not subject to SB 1149, although Energy Trust and the Oregon Public Utility Commission have historically tended to treat them as though they were. To this point, Energy Trust funds only cost-effective gas measures.

Discussion

- This pilot would support solar thermal as a natural gas renewable measure, and test whether a utility solar service offering can overcome market barriers to develop solar thermal.
- NW Natural proposes to install 3,000 hybrid solar/natural gas systems (i.e., solar backed up by gas) over three years at no upfront cost to residential customers.
- NWN would own and maintain the solar systems; customers would be billed a flat fee per month, plus the cost of supplemental gas.
- The pilot would treat gas solar hot water as a renewable energy resource, allowing an incentive up to the above-market cost.
- NW Natural would increase public purpose collections to cover the pilot's cost: (1) an estimated $4.7 million in incentives for systems installed through the pilot; plus (2) incentives for an estimated 500 systems that the pilot may encourage outside the pilot (i.e., systems that residential gas customers choose to install and own).

- The different incentive levels offered by Energy Trust for residential photovoltaic (PV) and solar water heating (SWH) systems that generate equivalent amounts of energy is shown below:

	Energy Trust incentive
PV – PGE customer	$4,000
SWH – PGE customer	$880
SWH – NWN customer	$660
SWH –NWN pilot (anticipated)	$1,500

Next Steps

- NW Natural intends to bring the proposal to the CAC and RAC, and then to the OPUC. When they do, they would like Energy Trust's support.