CONSERVATION ADVISORY COUNCIL
Notes from meeting Mar. 19, 2008

Attending from the Council:
Steve Bicker, NW Natural
Suzanne Dillard, ODOE
Bruce Dobbs, BOMA
Joe Esmonde, IBEW
Charlie Grist, NWPCC
Andrea Jacobs, Office of Sustainable Development
Don Jones, Jr. Pacific Power
Lori Koho, OPUC
Mat Northway, EWEB
Paul Olson, Oregon Remodelers Association
Lauren Shapton, PGE
Lisa Espinosa, Cascade Natural Gas

Attending from the Energy Trust of Oregon:
Matt Braman
Pete Catching
Fred Gordon
Steve Lacey
Spencer Moersfelder
Sue Meyer Sample
Elaine Prause
John Reynolds, Board of Directors
Jan Schaeffer
Greg Stiles

Others attending;
Jeremy Anderson, WISE
Verlea Biggs, PGE
Steve Hathaway, Siemens Building Technologies
Liesl Karasaki, Lockheed Martin
Nick Parsons, Lockheed Martin
Dick Parr, Reitmeier Mechanical
Jason Ping, Pacific Lamp Wholesale
Nathan Pollard, GCS
Sam Sirkin, Jaco Environmental
Anne Wagner, SAIC
Paul Warila, Cascade Energy Engineering

1. Introductions
Steve Lacey reviewed the agenda and asked for self introductions.

2. 2008 budget amendment
Steve reviewed changes to the budget reflecting added funding from Pacific Power and, we expect, from PGE in response to SB 838. He said the amended budget goes to the board April 9. The budget reflects $13.4 million in increased resources, $11.3 million in increased expenses, a 7.9 aMW increase in best-case electric savings goal and a 97,000 increase in annual therms best case savings goal. The added funds allow diving deeper into existing markets, placing a greater emphasis on existing small businesses and new commercial construction, adding near-low-income residential and new residential technologies, expanding the refrigerator replacement pilot, secure more savings from small industrial customers, expanding Corvallis Energy Challenge activities, pursuing net-zero residential and commercial building designs, and exploring time-of-sale upgrades.

He reviewed spending by program over time. He noted the programs show increases across the board in 2008 and 2009, except for existing residential. For that program, the 2008 budget includes a number of pilot efforts; at this juncture we don't reflect their continuation in 2009, although, depending on experience, we may incorporate funding to extend them in the 2009 budget. He noted "lumpiness" in the Production Efficiency budget over the years but resulting in a historic level of more money allocated to Production Efficiency. The net result shows proportionally more funding allocated to the commercial and residential sectors via 838.

He reviewed changes in resources and spending/savings by program. Paul Olson asked what portion of the total efficiency carryover was represented by the $3.2 million in carryover being added to the budget. Lori asked why the 2008 revised budget with the increase in supplemental funding didn't sum up when compared to the 2007 year-end expenses. Steve said that same question came up in a presentation to the Energy Trust Policy Committee. Sue Meyer Sample said the difference is mainly in how carryover is treated where 2007 expenses do not address carryover and the 2008 budget has it included. Lori asked how to justify the increase in Production Efficiency funding when SB 838 funds do not come from large industrial customers. Steve explained the increases are earmarked to support greater activity with smaller industrial users.

He reviewed budget changes by utility and revised projections for 2009. Andrea Jacobs asked whether a $.2 million reduction in renewables spending was related to any one program. Steve explained the reduction reflects reallocated administrative costs and is not tied to any particular program. Paul Olson asked if administrative costs increased. Sue Meyer Sample said they went up $140,000, although by percentage admin costs went down.

Lori asked if reduced savings in 2009 reflects absence of a megaproject or is the low hanging fruit getting sucked up in the industrial sector. Steve said this represents the lumpiness of that sector. He said we don't think all the low-hanging fruit has been picked, particularly in the high-tech field.

Steve asked if there were any concerns members of the advisory council wished him to carry forward to the board. Charlie Grist thinks the budget is right on track with previous council discussions about refocusing efforts in certain areas. John Reynolds asked if the CFLs in the home were regular CFLs. Steve said they are specialty bulbs such as vanity globes or flood bulbs that go in recessed cans. Steve said there are dimmable CFL products but they aren't reliable and don't have a

full dimming range. We hope that over the next several years LED technology will come in; which are readily dimmable.

Steve concluded the CAC recommends taking the revised budget to the board with no significant concerns.

3. Collaboration between Oregon, Washington and California

Fred Gordon reported that California has committed to get to zero-net-energy new residences by 2020 and zero-net-energy commercial buildings by 2030. The decision process to make this commitment has been top down, rather than built up in the traditional way. Energy Trust is considering whether there are opportunities where Northwest states should coordinate with California to radically accelerate efficiency and on-site renewables through multiyear, higher risk, higher bang effort. Status of the work is that Oregon and Washington commissioners suggested revisions before a summary proposal could be sent to the lead California PUC commissioner for efficiency. Fred expects to have a revised draft for John Savage by the end of the week.

We are looking at approaching California with a proposal to coordinate on zero-net-energy commercial buildings and on efforts to influence federal appliance standards. We view zero-net-energy homes to be a big challenge. We would suggest less-formal coordination on new LED products could be fairly effective

If we decide to pursue coordination, Fred said it isn't clear who would do the work. NEEA is 4-state entity so taking the lead may not be appropriate for NEEA. It's not clear what Washington regulators and utilities would think about having ET in the lead.

Don Jones said regional coordination is good. The planning process seems a good place to coordinate a multi-state effort. John Reynolds asked how plug-in hybrid cars will play into the zero-net-energy home. Fred thinks they have the potential to increase loads in a house. John thinks powering local travel with 100% wind power is an attractive option. Steve Bicker said zero-net-energy may not make as much sense as focus on Energy Trust's core business.

Lori Koho defended John Savage's request in light of the great effort underway in California that would represent an opportunity to Oregon and Washington with a relatively small investment. Paul Olson suggested Energy Trust could recruit someone in the Department of Energy or OPUC to take the lead. Fred said the efforts would require multi-agency coordination. Suzanne Dillard said ODOE has spent time in the past on national or regional efforts but is stretched too thin now to take such an effort on.

Bruce Dobbs noted that an ASHRAE Committee is well down the road to defining a technical approach to zero-net-energy buildings. Germany is ahead of anybody in the US right now. Joe Esmonde asked if anything exists in writing to further describe these efforts. Fred said he would send him a paper currently circulating among some of the utilities.

Steve said we'll bring this topic back to the group in a couple of months.

4. Business Energy Solutions project sorting rules

Spencer Moersfelder presented this subject, which deals with confusion about where retrofits, replacements and renovations fit in to Energy Trust programs. He said staff recommends changes be implemented July 1. Staff proposes:

- Existing Buildings will continue to address retrofits
- New Buildings will continue to address major renovations and new construction
- Production Efficiency will serve as lead for all existing industrial facilities
- New Buildings will work as lead for new industrial construction projects
  -PE will provide incremental process and production equipment support related to process or products, not human comfort
- Retrofit, replacement and major renovation incentive offers will all be aligned; i.e., lighting incentive is 30% of project cost capped at $0.15/kWh, and mechanical incentive is 35% of project cost capped at $0.20/kWh and $1/Therm.

Spencer discussed commercial sector project sorting. Existing Buildings will continue to address retrofits and replacements. For retrofits, baseline for incentive calculation is existing equipment. For replacement at end of useful life, baseline is common practice or code. If equipment needs to be rebuilt, then it is considered a replacement.

Nick Parsons thinks that if a chiller needs to be replaced, commonly it would be rebuilt to be no more efficient. If the incentive is based on savings above code, it would be too small to move owners to install new, efficient equipment. Steve said the incentive should be based on the efficiency of the new equipment compared to common practice, which would be rebuilding the chiller.

More discussion ensued attempting to draw distinctions between rebuild, retrofit and replacement.

Spencer introduced two possible commercial project sorting scenarios addressing the two-or-more systems rule. Much discussion ensued. It was noted that the structure of the New Buildings program rewards every additional increment of savings, while Existing Buildings caps incentives at 30% (custom) or 50% (standard) for lighting measures.

Regarding changing rules July 1, Jason Ping asked if we had considered how the change would affect trade allies with hundreds of projects that have been bid but not approved. Steve said we all deal with that every time a program change is made. Dick Parr noted program changes typically are made at the turn of the new year. He pointed out that currently major renovations, included in the New Buildings program, have no cap. Imposing a 30% project cap would effectively cut the incentive in half.

Jason asked if Spencer had contacted any of the trade allies to ask about the impacts of this change. Steve said not outside the CAC but pointed out we took his comments into account after the last meeting. We will consider the comments received today, including Jason's concerns about needing more time to sign up projects for which he has submitted bids under the existing rules.

Steve asked members of the Council whether they would support another round of discussion on this topic. Don Jones suggested working with trade allies to provide real-world examples of how representative projects would be affected under the different scenarios. Joe Esmonde supports the staff's recommendation, other CAC members support bringing the topic back. Steve said he would do this, and consult trade allies in the interim.

5. Biofuel efficiency projects

Steve Lacey said this is the fourth discussion of the topic, which considers whether Energy Trust efficiency programs should fund projects that use renewable biofuels to supplant thermal load supplied by natural gas or electricity.

Steve listed what we heard in prior discussions:

- Limit incentive offers to commercial and industrial sectors
- Concern about promoting use of renewable fuel sources diverted from fuel crops
- Concern that the multitude of provisions would deter participation
- Concern about using limited efficiency dollars for fuel conversion projects that aren't necessarily energy efficient
- Concern that a limited incentive offering based on incremental equipment upgrade would be relatively small compared to project cost
- Suggestion to offer this as a pilot with limited number of projects to define a future standard offer and project eligibility rules

He reported an analysis run on two scenarios, one involving retrofit of an existing gas boiler; and the next replacing a new or end-of-life existing gas boiler with a biomass boiler. The outcome showed relatively little incentive difference but when accounting for total project cost in the retrofit case versus an incremental scenario of new construction, the societal benefit/cost ratio varied significantly. The utility benefit/cost ratio remained quite high.

He then reported staff conclusions:

- Consistent with solar thermal, thermal biofuel projects are high conservation value worthy of support
- Biopower CHP should be explored before thermal-only consideration
- Project sites should be required to contribute to public purpose funding after project is complete
- Limit projects to commercial and industrial applications
- Participant must agree to initiate site-wide efficiency program as condition to undertaking biofuel project
- Allow only renewable waste fuel source projects
- Offer standard program incentives based on deferred energy load
- ET should have assurance that the incentive investment is realized for projects with fossil fuel backup
- Requires all emission regulatory permits per Biopower program requirements
- Operate this on a pilot basis by reactively accepting up to 10 projects over two years; then perform an evaluation to measure efficacy and report back to CAC results before expanding the effort.

Steve Bicker asked if back-up gas meters would be required. Matt thinks it prudent to put a gas burner in the boiler in case biomass supply were interrupted. He reviewed the process for project consideration.

CAC supported the pilot, with the considerations listed, with the exception of Lori, who abstained.

Meeting adjourned at 4:10 pm.