CONSERVATION ADVISORY COUNCIL
Notes from meeting January 23, 2008

Attending from the Council:
Steve Bicker, NW Natural
Suzanne Dillard, ODOE
Joe Esmonde, IBEW #48
Charlie Grist, Northwest Power & Conservation Council
Andrea Jacobs, Office of Sustainable Development
Don Jones, Jr. Pacific Power
Lori Koho, OPUC
Karen Meadows, BPA
Mathew Northway, EWEB
Stan Price, NEEC
Lauren Shapton, PGE

Attending from the Energy Trust of Oregon:
Pete Catching
Christian Conkle
Diane Ferington
Fred Gordon
Danielle Gidding
Joe Kraus
Steve Lacey
Alan Meyer, Board of Directors
Spencer Moersfelder
John Reynolds, Board of Directors
Jan Schaeffer
Kendall Youngblood

Others attending;
Jeremy Anderson, WISE
Verlea Briggs, PGE
Phil Chang, Central Oregon Intergovernmental Council
Chad Davis, Sustainable Northwest
Tom DuBos, Apogee
Cam Hamilton, McKinstry Co.
Nick Parsons, Lockheed Martin

1. Introductions

Steve Lacey reviewed the agenda and asked for self introductions. He reviewed the meeting schedule for the year. Eight meetings are scheduled. He reviewed the CAC roster. He noted that bylaws state council members are required to attend at least one meeting each year. Members who did not attend last year will be dropped from the roster unless they indicate intention to attend and demonstrate attendance in the next six months.

2. Preliminary results of 2007

Steve reviewed results and noted that the programs exceeded the best case electric goal by 3% and came in 10% shy of the best case gas goal. He went on to review the individual program savings performance.

Steve Bicker asked how the conservative and best case goals are defined. Steve said the best case goal is the stretch target we shoot for and the conservative goal is 75% of the best case goal.

Andrea asked how the NEEA accomplishments differ from our program achievements. Steve said their numbers are the Energy Trust service territory's share of regional market transformation savings. He added that when Energy Trust provides direct measure incentives then the Energy Trust claims the savings under the individual funding program. In no case are savings for the same measure or activity are claimed by both organizations.

Steve reviewed dollars per therm and average megawatt for each program.

He noted we ended up at 33.8 aMW at a cost of $46.5 million, which works out to be a little less than $1.1 million per aMW. This very good performance is largely a function of a very large project, SP Newsprint.

Don asked where this puts us on our path to 300 aMW. Steve said he believed this puts us at about 50% of the target and that this will be defined in the Q4 report.

Steve reported Pacific Power will add about $8 million to our coffers through SB 838. Their filing was approved at an OPUC hearing yesterday.

Karen Meadows noted our costs are low. Steve said they may go up, depending on whether we end up with a megaproject in 2008.

Stan asked what the cost per aMW would have been minus the Alliance numbers. Steve asked Pete Catching to calculate this. Later in the meeting Steve reported that the cost, absent Alliance contribution, would increase from $1.07M/aMW to 1.24M/aMW.

2. Biofuel efficiency projects

Steve reviewed the question of whether Energy Trust should fund projects that use biofuels or biogas to supplant the thermal load supplied by natural gas or electricity. He defined biofuel as a solid, liquid or gas fuel consisting of or derived from living and recently dead biological materials that can be used as fuel for heating and industrial production.

He noted issues discussed at the last meeting and invited further discussion, and introduced Chad Davis of Sustainable Northwest. This organization, Chad said, is an advocate for rural organizations. He supports funding community-scaled thermal applications that use locally derived woody biomass to replace natural gas or electricity. He said thermal applications are realistic, tangible and cost effective. Their benefits include helping communities become more energy independent, spurring economic development and local jobs, improved forest health, increased wildfire resiliency, and net decrease of carbon emissions. He noted interest in woody biomass thermal applications.

Phil Chang described his work for the Central Oregon Partnership for Wildfire Prevention. He described a proposal to replace one of three gas boilers heating two Crook County schools with a wood-fired boiler that would carry 90% of the load and save $80,000/year in energy costs. He described Prineville Sawmill Co.'s installation in 2006. He said this is a mothballed sawmill rebuilding its equipment. It is using sawmill residue to produce steam in a kiln to dry lumber. He said they are looking at a lot of other projects like these. He said there is a big supply of woody biomass available as fuel supply.

Steve asked if he is talking to Oregon Department of Energy about the school projects. They have public purpose funding for schools. Maybe ODOE has wrestled with this issue. Cam Hamilton, McKinstry, made a case supporting projects of this type, naming Enterprise School District. Steve asked and Kim noted these projects are eligible for the 50% BETC.

John Reynolds asked if Cascade Natural Gas industrial customers pay into the public purpose fund. Steve said large volume users that purchase transport gas do not contribute.

Steve Bicker asked about particulates and other emissions. Cam said emissions are relatively small. Someone else said combusting woody wastes emit a quarter of the pollutants of conventional fossil fuel.

Steve noted Energy Trust policy has been not to support projects that aren't served by one of our utilities. It is possible for potential projects to offset natural gas use 100% and preclude a gas meter being installed. Mat Northway thinks this is a form of fuel switching that might not necessarily be combined with energy efficiency improvements and therefore take away funds that should be used to improve the efficiency of facilities before undertaking fuel conversion projects. Steve said we might require investment in efficiency concurrently.

Alan Meyer asked what benefits from efficiency accrue to natural gas users. Steve Bicker made reference to societal benefits. Alan thinks it would not be fair to ask ratepayers to fund a project for which they do not get any system benefit enhancements. He also thinks it would not be fair to collect a public purpose charge from an entity who is not benefiting from natural gas.

Fred asked if this was a good analogy to self directors, who can tap our incentives at 50% but do not pay in. There was discussion on this point.

Steve Bicker said if we are talking about a new plant that might want to get natural gas for domestic hot water or backup, his company would have to do a feasibility study. If gas use were only for backup, and hot water, the costs to extend a line might not pencil out and the gas company would likely not serve them.

Steve said he thinks the group is further along but not near making a decision. Steve Bicker suggested a pilot program to see what the issues are. Steve Lacey said he might bring back "rules of engagement" for such a pilot next month. If CAC concurs then, he would feel comfortable bringing this to the board.

Joe Esmonde suggested this might be a good idea as an Energy Trust outreach effort to reach small rural markets. Don Jones thinks the decision should be made on the merits of the policy rather than as an outreach strategy.

Lori Koho suggests Energy Trust should not take on the challenge of a new pilot program when dealing with the influx of new funding from SB 838. Fred noted the possibilities extend beyond wood waste to other biofuels.

Steve Bicker would like the group to consider how the involvement of NW Natural's smart power biogas program would interact with this pilot.

Stan Price said the projects seem compelling but thought a cost effectiveness analysis would help inform the discussion. Karen Meadows agreed.

Steve said his team will bring this back some analysis and a straw proposal for further discussion to next meeting.

3. 2008 OPUC performance measures and avoided costs

Pete Catching noted our avoided costs and discount rate have gotten stale. With the passage of the SB-838 legislation, which drives efficiency through utility IRPs, the need to use similar criteria to utilities made particular sense.

For four months a group of stakeholders including the utilities and the PUC staff have been examining how to freshen them up and are close to closure. What is included in avoided cost has changed a little, coming closer to assumptions by IOUs. For electricity, we summarize avoided generation value, add in value from reducing line and transformer losses in delivering power, add in a small value for deferring T&D construction, and multiply the sum of these values by 110% to determine value to the utility system. In calculating value to society, that number is increased by hedge value (which was discussed at a previous CAC meeting) and non-energy benefits. Answering Karen's question, he said the value of avoided carbon is embedded in the utility avoided costs.

He reviewed analysis of the impacts of new avoided costs and discount rate on net present value for an illustrative set of programs. For electricity, with the new avoided costs and the increase of discount rate to 5.2%, the net present value of savings is modestly higher for measures with a variety of measure lives and load shapes. On a levelized basis, the value of avoided cost is higher with the new assumptions. Benefit cost analysis will use the net present value, so B/C ratios for the same measure or program will increase modestly.

Pete reviewed gas avoided cost analyses. The steps to building the value of avoided costs are simpler because there are no line losses and we haven't figured out hedge value yet. Since the carbon value is not imbedded in the data we received on utility avoided costs, we added it into the societal value.

The net present value of savings and the Levelized value both increase for a range of measure lives and load shapes. However, these measures of value go down for measures with 45 and 70 year measure lives. This partly reflects the impact of the higher discount rate. It also reflects a decision to assume that at the end of the 30 year forecasts from the Power Council, avoided costs will be flat in real terms. We previously had trended them up to 75 years, but decided that since nobody knew anything about cost trends in that period, a flat projection was a more neutral assumption. The third reason is that we haven't yet been able to compute a gas hedge value.

Fred explained the likely impacts on programs are the reduced value for long-lived measures. Based on a preliminary analysis we expect the following impacts of this modest decrease in value:
1. The cost-effectiveness of the gas Home Energy Solutions Program may go down by about 8%. However the B/C of the electric HES program is going up so there is no total drop.
2. We expect that insulation and windows, the only measures with 45 year measure lives, will still pass.
3. For the 2009 new home package that is being put together, insulation and windows are the only measures with 70 year lives, and there are no measures with 45 year lives. We have not done the analysis but it might be slightly more difficult to justify windows and insulation increases as part of this package. But because the code already requires quite efficient windows and insulation, these would be a modest part of the overall bundle. So if these measures do not pass, it may make is slightly harder to develop a package with 15% additional savings over Oregon code, but the amount of savings at stake are small.

Fred said we expect to go the board to propose a change to the higher discount rate. The board had wanted to see effects on avoided cost. If they approve we will revise discount rates and avoided costs at the same time.

Alan Meyer said he's puzzled by the data on levelized electricity showing little effect of higher discount rate. Fred explained that the carbon cost is only included in the later years. The shape of the curve of avoided costs over time was also different from the old forecast. Pete added that he's done a number of scenarios and sensitivity runs using different shapes of avoided cost streams. Whether its smooth or bumpy makes a considerable difference. He said going from 3 to 5.2% does not effect a big change when other costs are held constant.

Fred explained that the impact of discount rate on Levelized cost is modest because the discount rate is used both to get a present value of savings and to reflect the costs penalty for paying up front for efficiency. The two uses seem to balance out so that Levelized cost is insensitive to discount rate. He emphasized that the decisions about investments are made based on Net Present Value, and Levelized cost is a simplified point of reference.

Seeing no objections or concerns, Steve concluded he will bring this forward to the board.

4. Online Home Energy Analyzer options

Christian presented an overview of the two options for the Home Energy Analyzer, the benefits of each and the obstacles to switching to a new vendor. ETO recommendation is to switch from Nexus to Apogee.

Suzanne asked if we had gotten feedback from customers on the online audit and if there was a correlation to incentives. Christian replied that PGE does have user analysis, and said that 714 of about 7,000 customers went on to complete other measures after completing the online audit, and about 800 had already completed measures before the online audit.

Don said that they've run Nexus in WA and views it purely as a marketing tool. He asked if we put the cost in as a marketing expense and yanked the CFLs, would it still float? Steve replied that it is categorized as a marketing cost, and that it is used to drive customers to the Existing Homes program. Diane affirmed that the cost of Nexus is currently 100% marketing cost in her program. Fred said that another benefit is that it provides an alternative for customers who aren't eligible to get the in-home review. Don said that he is wondering about the possibility of lowering costs spent on CFLs due to increased sensitivity on the issue.

Karen asked if it was possible to offer a measure of greenhouse gas in the application. Christian responded that both options already offer that.

John R voiced the concern that the option with more screens would collect more data and be more accurate, and wondered if anyone had compared the two side-by-side. Lauren responded that PGE had compared the two side-by-side using the same home model and that they were comparable given that most users rely on default answers.

Alan asked about the possibility of giving another incentive instead of CFLs. Christian and Diane have talked about that possibility and will continue to think about other options.

Lori voiced a concern about collecting personal information and turning people off to going further with the application. Christian presented numbers of drop-off users at each level.

Charlie asked if there would be a gap during the transition. Christian responded that worst-case there would be a short time where the free CFLs are not a part of the offer, but the audit would be available.

Charlie asked if there is a cost to the utilities in transitioning? Steve Bicker said that based on ETO's initial choice to Nexus, they had bought a license for their WA customers and other companion applications. Steve Lacey said that there is no cost to utilities for the application or maintenance. Lauren commented that there are minor costs for putting it up on the utility websites.

Steve said that if we are happy with the new product, we will continue, and if not we still have Nexus as a fall-back. It was asked if there were other comparable competitors, and Christian said that it really only came down to these two between all of the options he looked at.

Steve Bicker asked about Apogee's carbon assumptions for estimating carbon output, and Tom Debos responded that they ask for that information from each individual utility.

Steve asked to go around and ask if each person supported. The responses were:
Charlie--Yes
Joe--Yes
Susan--Yes
Matt Northway--Yes
Stan—no problem if other parties are ok with it.
Karen--echoed Stan
Don--Yes
Steve Bicker--says NW Natural has reservations due to associated cost
Andrea--agrees with Stan

5. **Business Energy Solutions program updates (Existing Buildings, Production Efficiency)**
Nick Parsons presented new changes in the existing building program. Emphasis is on changes in lighting incentives and discussed the excitement from the Trade Allies surrounding these changes. There was discussion on the expensive aspects of controls. Nick believes going up to 15 cents from 12 cents will be enough to spur the market. Maintaining minimum energy savings requirement but proposing to increase the measure incentive cost cap from 25% to 30% as necessary to spur the market.

Alan asked if it would make more sense to raise cost from 12 cents to 70 cents instead of just changing the maximum cap to 30% if we want to give them more money. Roger responded that actual maximum project cap is 50%, the 30% is for custom measures only.

Why is there a lower cap on custom projects? Nick responded that the generic measures are easier to sell, and the prescription incentives are more involved and require more work. Roger says the general feedback is that if we raise the cost just a bit, we will see more projects coming in. We are ramping up slightly but do not want to oversell the program.

Alan is concerned that with the raised cents per kWh will just mean hitting the cap sooner.

Many people needed clarification on the new incentives and caps. There were many questions on specifics about measures and savings requirements. Lauren said that it is important to explain what is happening with marketing as well as within the program incentives to paint the bigger picture more clearly for the people present in the room.

Karen commented that she is supportive of anything that helps synchronize incentives for the trade allies. Fred said that it is still very cost-effective even with the change. Steve pointed out that it is also defensive to keep trade allies from going to other service territories that have more attractive incentives.

Joe asked if the program was targeting specific parts of the market? Nick responded that the lighting program is trade ally driven and it's dependent on the trade allies and the markets they the serve.

Steve asked if there was any objection to making these changes in March. There were no objections.

6. Existing Homes program update
This item was put off until next month.

The next meeting will be February 20th.