

CONSERVATION ADVISORY COUNCIL

Notes from meeting May 18, 2005

Attending from the Council:

Matt Northway, EWEB
Steve Bicker, NW Natural
Syed Rezvi, OPUC
Carol Brown, Efficiency Services Group
Gary Curtis, West Wall Group
Suzanne Dillard, ODOE
Paul Olson, Oregon Remodelers
Association

Others attending

Lauren Shapton, PGE
Brian Hedman, Quantec
Terry Egnor, Microgrid
Will Miller, Aspen Systems

Attending from the Energy Trust of Oregon:

Fred Gordon
Steve Lacey
Andy Saleh
Maureen Quaid
Diane Ferington
Greg Stiles
Elaine Prauss
Denise Fragos
Spencer Moersfelder
Kevin Whilden
Mike Laney
Debbie Kitchin, Board of Directors
Sue Meyer Sample
Kacia Brockman

1. Introductions and Announcements

Steve Lacey welcomed attendees, and asked for self introductions. There were no changes to the agenda. Fred introduced Elaine Prause and Kevin Whilden, two new Energy Trust employees assisting with technical analysis and planning.

2. Program Status Reports

Steve gave a general update on Q1 of 2005. We hit 15% of our 2005 goal, skewed by PE results. In the residential sector, we hit 1.87 aMW at a levelized cost of 1 cent per kWh. The commercial sector achieved 1.21 aMW at a cost of 3 cents per kWh. Industrial programs achieved 1.86 aMW at 2 cents per kWh. Total savings are 4.94 aMW at a cost of 2 cents per kWh. We are currently on track to meet our best case targets for the year at 15% for the quarter because with the exception of Production Efficiency, the major programs are at 25% of their best case targets. Production Efficiency is at 9%, but is expected to meet best case targets.

Gas savings were more than 450,000 therms at a levelized cost of 20 cents per kWh. We are currently at 34% of our annual goal.

Overall, in Q1 there were almost 10,000 efficiency projects completed.

Kacia Brockman presented an update on the Solar Water Heating program. There were 14 systems installed during the quarter. Based on Q1 performance, the program is expected to achieve about $\frac{3}{4}$ of the annual goal for the year. Activity is expected to pick up in spring and summer months. Gas incentives were raised to stimulate more participation by NW Natural customers.

Paul Olsen asked if we have contacted people who have installed SWH systems over the years, but whose systems are not working. Kacia said no but agreed that this is a good strategy to acquire savings and to stimulate the solar trade ally network.

Kacia said a new program training session is scheduled in June. We are involved with the Street of New Beginnings and Street of Dreams. We are also initiating spiff incentives for trade allies who promote solar from other programs.

Greg Stiles did an update on the New Building Efficiency program. In Q1 of this year, we have completed more projects than in all of 2004. The program budget is already exceeded with projects in the pipeline. Streamlining activities continue and work with participants and program allies to complete paperwork. In Q2, all the program forms will be reviewed and revised.

Debbie Kitchin asked about levelized costs for the program – why are the costs high at 8 cents per kWh? Greg said that the front loading of technical assistance paint a distorted picture and that costs will come down as projects are completed and come on line. Gary Curtis asked if any market segments are bringing more work. Greg said that architects and engineers have been bringing in more jobs, and we are reaching out to other contractors.

The LED traffic signal program has not posted any savings in Q1. The program process requires that paperwork be submitted by December, when all the savings will be accounted for. In the last few weeks, we received applications that account for 95% of goal and we may need to tap the brakes or phase out the program.

Andy Saleh presented an update for Production Efficiency. We expected slowness in Q1 because of the long timelines for project completion. In Q1, 39 projects were done for annual savings of more than 15 million kWh. We instituted a 20 cent per kWh cap with no noticeable negative impact on participation. Smaller industrial firms in PGE territory are participating in increasing numbers. We are working with Pacific Corp to starting an irrigation initiative in the Klamath basin.

The Building Efficiency program is performing well, with 121 projects completed in Q1. A 20 cent per kWh incentive cap has not caused a slow-down. Trainings and promotional events have garnered interest and 15 new applications for the trade ally network have been submitted.

Spencer Moersfelder provided an update on the new O&M program, which is now called Building Tune-up and Operations or BTU. The program will launch later this year, probably in September. Current expenditures are related to the NEEA building performance services pilot. PECEI has been selected as the PMC for the program.

Diane Ferington did an update on the Home Energy Savings program. CSG was selected as the new PMC for the program. Q1 performance was good, and the Ecos effort will achieve all the savings in their current contract. There were 4,836 projects completed in the quarter, including more than 1,600 projects in gas-heated homes. Customer satisfaction surveys show high satisfaction with the program. A highlight was a TV news spot (KOIN), which Diane played for the group.

In the Efficient New Homes program, commitments are tracking at the high target. So far, 213 projects have been completed. The Street of New Beginnings will start in June – all the homes

are Energy Star homes. EWEB and Energy Trust co-sponsored builder breakfasts. In the future, solar water heat will be featured at the breakfasts.

Efficient Home Products achieved their annual goal for the first program year. Coming will be a dishwasher rebate during the fall lighting campaign. There were 985 projects in Q1, and the clothes washer incentive is on track to exceed 8,815 incentives. Lights for Learning, school CFL fundraiser, took place in mid-March with mailings to 600 schools. More than 127,000 CFLs were sold through the Savings with a Twist promotion.

Paul Olsen asked about CFL disposal. Diane said that instructions are included with bulbs that talks about proper disposal. Fred added that the Alliance is working with Energy Star to get mercury level standards in the bulbs to reduce mercury at the source. Matt Northway said in Lane County, retailers are working together to take CFLs from customers who come in for replacements. The local waste collection agency picks up the bulbs.

Gary Curtis asked if there is retailer dissatisfaction with giving away bulbs. Diane said that coupons are used at the retailer. The HES program does direct installations, which will be curtailed in the future. Fred said that CFL sales increased by 1.2 million last year, so retailers are benefiting from the market transformation. Steve added that the multifamily direct installations are a small part of the total number of bulbs. Gary asked about bulb testing, and both Diane and Fred responded that testing efforts are in progress through a national collaborative effort called Pearl. Pearl testing is not a requirement, but is recommended. Our direct install bulbs have been tested, and meet Energy Star criteria.

Gary Curtis asked about consumer complaints about early burn-out of bulbs. Fred said the Alliance does a survey every year or two, and they have seen a modest but significant number of early replacements, and hopefully in the future, Energy Star bulbs will improve that over time. Gary asked about assumptions for disposal, and Fred said that EnergyStar is requiring reduced levels of mercury in bulbs. Diane described the information that the Energy Trust and Northwest Alliance provide to encourage recycling.

The Affordable Comfort conference was a success, with 319 participants from all relevant sectors. The 2007 conference is planned for Portland.

The Northwest Energy Efficiency Alliance achieved 1.04 aMW in Q1 at 1 cent per kWh. The Alliance adopted the 'change a light' program and will promote it throughout the region. DR Horton, a volume builder, has received materials, training and PR support. In the commercial sector, daylighting and natural ventilation controls strategies and case studies are being developed. Energy Trust is now a sponsor of the Building Performance Services. In the industrial sector, channel managers are being trained to deal with compressed air systems. Food processors are being approached for continuous process improvement projects.

Steve announced that Aspen Systems was re-selected through a competitive solicitation as the PMC for the Building Efficiency program.

3. Annual Board Retreat Strategic Planning Items

Fred presented an early look at where the programs could be heading, and asked the group to consider the report still as a draft. While the numbers are not yet final he is confident in the

direction of the new projections. Several Energy Trust programs have experienced explosive growth in commitments and the board will have a strategic planning session in June, and revised forecasts will be very useful in planning for 2006 and beyond.

The current forecast was developed to show a full menu of options within a framework whereby the Energy Trust pays modest incentives. It is not constrained by budget, and gas projections run well over budget, while electric projections are over budget in early years, but then come into balance in later years. The analysis includes cost and savings for all equity options that could be quantified. The analysis assumes that electric revenues will increase by 2% and gas revenues by 3%. The forecast also assumes that there will be a further reduction in incentives for Production and Building Efficiency programs.

Paul Olsen asked if the program costs per therm or kWh are coming in at more or less than expected. Fred said some of both, and will go over each program. The forecast depends on the volume, since fixed costs are spread over a larger number of projects. Higher volumes will drive costs down, and we're still trying to figure out how realistic current projections are.

The analysis shows a projected expenditures based on optimistic (high volume) assumptions to be \$5.8 million greater than available revenues for 2005 (for electric efficiency), and in deficit through 2009. If the Energy Trust employs all equity options and pushes for volume in all markets we would exceed available revenues by several million over budget each year, so we will have some tough choices to make. The projections for gas efficiency show deficits starting in 2006 and ramping up to more than \$21 million by 2012. (Note: updated versions of these projections will be posted as part of the packet for the June 6th and 7th board retreat, shortly.)

Paul asked for a clarification on the numbers, and Fred responded that these numbers are still in flux, but they point correctly in terms of direction. 2005 projections show 36 aMW and more than 1.7 million therms, significantly higher than projected in the 2005 budget. We may want to cut back on pace, but not curtail programs.

Electric savings come up to about 260 aMW, short of the original goal of 300 aMW. If we can find more really large, inexpensive industrial projects, we may get closer to the original goal. However, none are currently in the pipeline. Alliance activities contribute to the uncertainty, since it is more difficult to evaluate market transformation savings. We used a fairly conservative estimate of future Alliance savings.

For gas savings, projections are slightly lower than the original 19 million therm goal established in 2003. With market transformation, we may achieve 19 million therms.

Paul Olsen asked about accuracy of revenue projections. Fred said that utility projections are not very useful because they cannot forecast rate increases until they officially file them. The Energy Trust uses a crude projection because more detail does not provide more accuracy. Are takebacks factored into revenue projections? Fred said in a good year, our activities may impact revenue on the order of about 1%, so the impacts on revenue are not large. Paul asked about assumptions for the public purpose charge and any changes that may happen. Fred talked about the assumptions for electric and gas public purpose charge revenues.

Efficiency Priority Options include allocating funds in different ways to meet some combination of these goals. We cannot emphasize them all:

- Pursuing long-term lost opportunities in new construction, appliance standards, and regional coordination in heat pump water heaters, power sources, and research and marketing coordination. Debbie Kitchin pointed out that Oregon accounts for about 3% of the country's loads so should pay about that percent for national initiatives. Fred said that the Northwest is often out in front on national market transformation initiatives, but would only move forward on expensive initiatives with support from other leading regions. Some areas of the country do not have an institutional framework to support coordinated efficiency initiatives, so could not be expected to participate...
- Maximize participation
- Maximize savings
- Address equity, which will cost more than other programs
- Set aside funding for very large projects that are not on the radar yet.
- Phase down higher cost approaches
- Possibly shift focus from PE to BE because right now BE projects that are coming in the door are less expensive.

Debbie asked about the industrial sector. Fred said we assume a 10-year average measure life, assuming that some businesses will fail or change production or product mixes before the end of the equipment life. Commercial facilities have shown that equipment has fairly long measure life and will be in service regardless of building turnover.

For all residential programs, savings for lighting are projected to come in at low levelized costs with a refocus from direct install CFL's to other avenues of delivery. Home Energy Savings is becoming more cost-effective, solar thermal is expensive at 9 cents per kWh levelized. Gary Curtis asked how the levelized costs are calculated for single family, and may have found a math error in \$ per aMW. Fred will correct and post corrections on the website.

Fred reviewed individual initiatives for home products - projections show all are cost-effective, although near low-income equity programs are marginally cost-effective. Efficient new homes will cost about 1 cent per kWh levelized, assuming a reasonable volume through the program.

Carol Brown asked about new homes, and the differences between 2004 and future costs – where will those significant changes come from? Fred said that the 2004 numbers include a high proportion of furnace incentives, and the future projections assume that there will be many more completed homes. He added that an error in the forecast model for this program was discovered just prior to the meeting and the savings projections may come down and costs per aMW may increase as it is corrected.

Gary Curtis asked if the projected mix of measures in the future is the same as the current mix, particularly for windows. Fred said that we are using the same mix of measures in most program. Multifamily windows are prevalent and we are getting large volumes of windows, but we will be backing off next year, since the current incentive is high. Otherwise, windows are a small part of the projections, partly because 90% of residential window sales are already EnergyStar windows. Gary asked about duct sealing, and Fred said that in single family it is not a major factor because we have not yet figured out how to get many homeowners interested in the measure. Gary asked about business models that may work in delivering that service. Fred and Diane said that the Home Energy Savings Program will be testing a new business model (EnergyStar existing homes) to see if it increases sales of duct sealing, but that major changes in the measure mix were not forecast, as a conservatism. We would need to adjust the plan if high volume of duct sealing in single family homes resulted...

For commercial and industrial programs, levelized costs range from 1-3 cents per kWh, with the exception of solar thermal at 9 cents per kWh. Paul Olsen asked about linkages with BETC. Fred said that the BETC staff at the Oregon Department of Energy work closely and effectively with many of the Energy Trust's contractors, both for tax credits and pass-throughs. Suzanne Dillard said that current credits exceed \$100 million. Gary Curtis said there are business people who are still not aware of BETC. Lauren Shapton said that PGE call center reps could do more to promote BETC. Maureen Quaid reported that all the PMCs report that they train their trade allies on BETC, but coordinated training with ODOE is in the works.

Building Efficiency costs are coming in lower than they have been to date, at 1.4 cents per kWh levelized. This reflects both higher volume, and the assumption that incentives are further trimmed. Production Efficiency is more expensive than originally thought, at 2 cents per kWh levelized. This is true even with reduced incentives. For gas, pre-rinse spray valves are a substantial part of the Building Efficiency savings. Savings are projected at less than the 30 cents per therm levelized PUC performance measure.

Fred discussed equity considerations, by sector, geographic and underserved groups. There are differences between revenues and expenditures by sector. Residential customers get less and industrial customers get more compared to what they are putting into the public purpose fund. Considering the current analysis that shows that industrial programs cost more, is this an appropriate allocation?

There are geographic equity considerations – some counties have higher participation and some have lower rates, but in general the programs are reaching all counties with a reasonable distribution percentage. We may want to do additional marketing in counties with low participation rates. Participation in gas programs looks more even compared to electric programs.

We have done several projects to serve customer groups that have been underserved by historical programs, including New Columbia, multifamily CFL direct installations, public school projects, etc. New equity initiatives are being planned.

Brian Hedman asked if this is the same information that will go to the board for their upcoming retreat. A refined and distilled version will go to the Board, with whatever corrections can be made before the retreat, which will be June 6-7. Gary Curtis asked that the board be made clear about the lack of new widgets in the current projections. Debbie Kitchin added that projections do not take into consideration that new technologies may cause older equipment to be phased out. Gary added that the board should think about the data that industrial programs are more expensive than we thought, and implications for revenue allocation. Debbie added that adjusting measure life for industrial measures would make a difference, and may actually make projects less cost-effective. Fred said we are already doing risk mitigation with the ten year measure life. We have also backed off on the early incentives we paid to get projects in the door. Steve added that industrial lighting savings are showing up on the commercial side, and those are cheap savings. This makes industrial as a whole look more expensive than it is, but also understates the proportion of program funds going to the industrial sector. We may want to account for those projects in computing the average cost for industrial.

Paul Olsen asked about low income. Fred said that there is separate funding for low income that goes to other entities. We do not avoid low income projects, but with partial incentives, we do

not get many. Exceptions are mobile home duct sealing and CFL'seffs (which we provide free) and multifamily buildings (where low income households are sometimes mixed in and the deal is with the landlord). Paul asked about residential volume, and dramatic increases in participation. If we shift emphasis to a higher cost per house, we run the risk of lowering volume, and needing to cover fixed costs with fewer homes. Fred said the approach will be watched closely, and we will require equal savings per dollar invested from more comprehensive approaches or we won't continue to support them.

Adjourn

Steve adjourned the meeting at 4:15 p.m.