CONSERVATION ADVISORY COUNCIL
Notes from meeting on April 13, 2011

Attending from the Council:
Jim Abrahamson, Cascade Natural Gas
Holly Meyer, NW Natural
Wendy Gerlitz, NW Energy Coalition
Lauren Shapton, PGE
Paul Case, ORA
Stan Price, NEEC
Andria Jacob, City of Portland
Bill Welch, EWEB
Bruce Dobbs, BOMA
Brent Barclay, BPA
Don MacOdrum, HP guild
Robert Del Mar

Attending from Energy Trust:
Tom Beverly
Matt Braman
Diane Ferington
Peter West
John Volkman
Oliver Kesting
Pete Catching
Kim Crossman
Spencer Moersfelder
Sue Fletcher
Margie Harris
Amber Cole
Susan Jowaiszas
Marshall Johnson
Jack Hruska

Others attending:
Jeremy Anderson, WISE
Tim Davis, CSG
John Reynolds, Energy Trust Board
Debbie Kitchin, Energy Trust Board
Terry Miller, CSG
Jeff Branch, Gagle's Heating
Emily Moore, PECI
Dave Hammond, Faison Energy Solutions
Mary Mann, Goose Hollow Windows
Phil Damiano, PECI
Bernice Lopez, HELP Group, Inc.
Paul Olson, Gale Contractor Services
Mark DeFrancisco, Heat Relief
Kendall Youngblood, PECI
Carollyn Farrar, NW Natural
Andrew Ragen, Rogers Machinery
John Karasaki, PGE
Debbie Shy, Gale Contractor Services
Jim Cole, Insulators Depot
Tom Sorenson, Heat Relief
Damien Henricks, Johnson Supply
Bruce Knight, Service Partners
Marilyn Williamson, NW Natural
Murali Varahasamy, Lockheed-Martin

1. Welcome and introductions

Peter West called the meeting to order at 1:35 pm and began the discussion on Q1 results.

NOTE: All materials referenced are available on the Energy Trust website.

2. Q1 Results

Peter West: Overall, we're on track for all utilities, and if anything, we're ahead of pace for Pacific Power. Keep in mind that Q1 is sketchy, with only 3 months of data. Things change rapidly. The next review will be in July, and will include the 2nd quarter, which will be more meaningful.

Oliver Kesting: The first slide on the handouts is a commercial summary. It's the roll up of Existing Buildings, New Buildings, Multifamily and several smaller scale commercial efforts like 80 plus. In general, we're on track to meet stretch goals. Spending is tracking to our accomplishments as an overall percentage. For NW Natural, we're running a little higher percentage of budget, which essentially is due to early studies. These take time to advance to savings, and will balance out over the next several months. As for program specifics, we're

strong in the New Buildings pipeline with several long term projects identified into 2012. Existing Buildings is tracking slightly behind prior years, compared to this same time period, but the pipeline is stronger than before. The lower savings at this point are likely due to the fact that we closed so many projects in 2010 and it's taking a while to get momentum going again. Also, we have a limited data set – only last two years to compare. Multifamily is under a new program management contractor (PMC), but is ramping up very quickly. They're at about 4 times where we've been in previous years for this same period. As for gaps in the pipeline, we'll achieve our goals through identifying additional short-lead projects that will close in 2011.

Kim Crossman: The industry and agriculture sector is the Production Efficiency PE program. At this time, the pipeline is very spikey from territory to territory. We're running a little hot in Pacific Power Territory, but it's very early in the year. It's common to a have big pipeline, at this point. We'll be paying close attention to those projects and update the pipeline regularly to ensure over-exceed. There's a good amount to make up in PGE territory, but it's early. New initiatives are targeted to PGE customers, like Enhanced Technical Services and 90 by 90, for example. The NW Natural pipeline is robust, but my level of confidence in all projects getting done isn't as high. So I am not concerned about overspending in that territory at this point, just am optimistic that we can finally hit our stretch goal in gas this year. In Cascade territory, the pipeline shows half way to our conservative goal, but we are actively reaching out to new Cascade Natural Gas customers now and expect to see new projects entering by next quarter. Our spending is slightly ahead of savings, which is normal for this time of year as we are doing more studies right now. Overall, we are on track and robust, at this point.

Holly Meyer: In the first chart, none of the bars go up, but the back says we are on track for stretch goals. How do we compare and reconcile those two?

Kim: The blue that's sticking up in the chart shows what we expect to come in that we haven't heard about yet. We analyzed last year and discovered many projects that showed up and were quickly done..

Oliver: For commercial, the blue is based on historical trends for prescriptive projects but the rest is based on known projects.

Bill Welch: So the short cycle projects haven't been identified but will be?

Oliver: That's in the projections for commercial But B otherwise we're not seeing anything hasn't been identified, and that has been factored down in the middle bar based on confidence ratios.

Kim: The projects come in different ways for each sector, so it's tough to fit a single approach to projection of savings across all sectors.

Bill: Do you have all of the years side by side to compare?

Oliver: We started this last year, so we don't have side by sides, but we will.

Bill: At one time, I plotted 10 year projections and could easily tell where the cycles would turn upward.

Peter West: We provide an updated report each quarter to OPUC, and it's posted on the website, as well. We do that comparison in the report – this quarter compared to past year's. We can start bringing that into the explanations on the other side of the sheets. The table does

show historical achievements at this time of year and does provide some of the comparison you suggest.

Diane Ferington: The residential dashboard has significant detail on the back page. The forecasted or "estimated" savings aren't on this quarters dashboard, but will be next quarter. For residential activities, the majority of savings are "estimated" as whatever comes in through the mail, each quarter is where most of the savings come from. By the time we're at a half year, we'll have better information to forecast estimated savings. The other thing that's not here is OPOWER, which will book next quarter, and the savings are fairly significant. Compared to last year, we're ahead in all utilities except NW Natural, which is due to paying on the volume of furnaces installed at the end of 2009 but submitted in Q1 of last year. The other anomaly is a being ahead of this time last year in Pacific Power territory, due in part to the contract in place through NEEA for BPA lighting which has increased rural presence, in Pacific Power territory. The bullets points on the back of the dashboard explain further. By next quarter, we'll add our forecasts of what will come in the door. We should see some great electric numbers this year. Lighting is anticipating exceeding original expected savings by 3.5 M kWh.

2. Cost ranges for efficiency installations

Terry Miller from CSG presented information on cost ranges and methodology for obtaining the numbers.

Terry: Last time we did an overview of our intent to publicize cost ranges to help engage consumers. Our intent today is to go through the methodology used to establish the cost ranges, where we'll use them, and how we'll maintain them.

The intent of this effort is to respond to customer demand. They want this information. This effort will provide a general sense of the installed cost and the scope of what customers are getting into. Cost of installations is a common topic of conversations for customers or advisors. We feel that having an indicator of the actual cost for these measures will help eliminate one of the customer drop off points in the program.

Our methodology is based on using standard statistical methods. We checked which measures have a bell curve, or standard distribution. The data is from 2008 through 2010. In some cases, we used longer timelines based on what data we had available. Heat Pumps are one example, because of a large change in incentives along the way. National Renewable Energy Labs (NREL) publicizes national data, and we compared against them to make sure we were lining up. In one case, we made a change, but numbers lined up, for the most part. We eliminated outliers – the top and bottom 1 percent, in most cases. For example, geothermal heat pumps would be outliers and could influence the overall range. Ease of maintenance is a big thing so we can quickly make updates. All dollars were normalized for 2010 based on the consumer price index.

For domestic hot water and heating, we had a standard distribution of data. One standard deviation was 68 percent of projects. Plugging in the median cost for boilers gave us a range of $7,100 - $13,300.

It was tougher to find a range for weatherization measures. The distribution had a long tail on the upper end. We used the middle 80 percent of jobs, dropping 10 percent on each end. The range lined up well with NREL data. Wall insulation, for example was $.86 - $2.55 per square foot. NREL showed $1.10 - $2.40.

Debbie Kitchin: How did you decide where to use 80 percent instead of a standard deviation?

Terry: When it was wider, like weatherization, we used the wider 80 percent.

Debbie: What's included in the wall insulation?

Terry: We used all wall insulation as an example. It includes contractor installations, including CEWO, and all others.

Dave Hammond: Does it include projects with lead paint mitigation?

Marshall Johnson: Any data that came in from last May through today would include it for pre-1978 homes.

Terry: The ranges are designed to accommodate that, but there will be some freak cases.

Peter: Our qualifiers should mention this.

Dave Hammond: A big percentage of our projects include lead based paint. CEWP found a lot of them.

Peter: For the group's background, there are newer requirements for lead based paint in homes that impact weatherization costs. They are relatively new, so they aren't as completely in the data set. We agreed to alert people to variances, and that would be something we include in our qualifiers – new regulations, for example.

Holly Meyer: Are the windows by square foot?

Terry: Yes. When we started, we took 10 percent off either end, but created something too low on both ends. We then used a tighter range, at 20 percent for each end; more in line with what's in the field today. $22 - $55 per foot lined up with NREL data.

Debbie: What years did you use?

Terry: Windows were 2008-2010. Boilers were 2006-2010.

Bernice: Did you use any particular window?

Paul Case: Were lead safe projects included?

Terry: We didn't use a particular window type, and lead safe projects were included.

Peter: Again, qualifiers will be added to the numbers.

Debbie: Can you continue the qualifier with example conditions; things like dry rot, lead paint, and a list of others?

Terry: We had a whole list, but the challenge was: where do we stop?

Marshall: The sample handout being passed around shows the disclaimer.

Don MacOdrum: Do you feel those ranges are tight enough around the median to be useful? They are pretty big ranges. It might cost $10,000 or $20,000 for windows. Is that helping the customer?

Terry: This info should be paired with a greater experience like having an advisor in the home. It will help them talk about the scope. It's not intended to be given out without some context.

Holly: Does it show you a way to estimate costs by square feet? Does it include a payback period?

Terry: It doesn't include how to calculate square footage. We're using it in the Energy Performance Score (EPS) pilot, so customers would have someone go through their home, and give them more of an idea.

Paul Case: Can I suggest a rewording? Maybe put "vary per contractor" near the end? It puts less of an emphasis on shady contractors and more on manufacturers.

Peter: We could take "contractor" out.

Paul: Yes. Keep it simple.

Don: You may also want to include self install.

Terry: Self install is included.

Bernice Lopez: Payback is a long time, so you're avoiding it, but you are giving a wide range of costs that cause problems for contractors. I would never get any new jobs because I'm past these costs for wall insulation. It will hurt many contractors who do good work and charge a little more for it.

Peter: We couldn't complete the work for paybacks so far, and we have work to do there. I would like to put payback on, if it's a good selling point.

Bernice: Can we wait until we can get payback on there? The timing isn't good, because we don't have accurate information.

Brent Barclay: Is this going to fit on that report that was passed around?

Diane: We would have to rethink the format on the report.

Debbie Kitchen: They are here but not filled in on this example. Cost range, savings, incentives are shown. A person could calculate it.

Terry: That's the custom home energy report in the EPS pilot. It's shown on the slides. The info would also be on the website and other places where it makes sense.

Debbie: Nowhere does it say it estimates 80 percent of the cost range.

Brent: That would be too much information on the form.

Debbie: It doesn't show reality, and there is a wide range. It's just a fact. We don't want to give too little info just to avoid confusion.

Peter: We could work that in, and use a simple way to say we've taken off the outliers.

Stan Price: The first slide is predicated on the idea that people are asking for costs, which isn't surprising. Absent that info, it's affecting decisions and preventing people from going forward.

Terry: We see this as a drop off point. After we engage customers, they are left with a set of opportunities, and they need to get bids and scopes. This is one piece of info that holds them back. If we give it out it gives customers enough confidence to have conversations with a contractor. They can ask, "Where would I fall in this range?"

Stan: The ranges vary about 100-300 percent. Is that sort of wide range solving the problem? If we do this, will it solve the problem we've identified? Have you tested it?

Terry: This would be the test. We propose testing it through the pilot with EPS, and seeing what people do with different levels of information. We're trying to get higher conversion rates and follow-through time improvements.

Diane Ferington: If you ask the advisors, they'll say homeowners ask this question often. At least we have ranges to give them based on actual install costs reported under the program. Do we have data on this question through the call center?

Sue Fletcher: We do track some call types through the call center, but it's broader categories than this.

Jeremy Anderson: When the customers ask this question, what do you tell them now?

Terry: We don't answer the question.

Jeremy: I suggest you tell people to get a contractor in the house. It makes for faster sales and installation.

Terry: We do that already, but this would be intended to get better qualified leads to the contractors.

Jeremy: It's more about quality, after the contractor comes in, than about price.

Bruce Dobbs: I would want to know what's it going to cost and save me? If it's cheap, but doesn't save anything, it doesn't matter. It seems that telling people how much it will cost and not telling how much it will save, doesn't provide the whole story. The order of magnitude idea is good. If they aren't interested in even the low end of the spectrum, they aren't qualified leads.

Peter: We agree and the report does have savings to compare to cost ranges.

Lauren Shapton: Yes, the report shows savings. Are these savings numbers [on the sample EPS Report] in dollars?

Marshall and Diane: It's in dollars on the example. It's calibrated to the home's actual utility bill, so that the suggestion is for savings amounts is not higher than the home's total energy use.

Terry: We want to evaluate the info at the pilot first, to see if it helps, then go forward more broadly. It's only going on the pilot report until we see results.

Peter: It's a 200 home pilot, and starts as soon as we get past this discussion. Biennial data updates would happen after we get past the pilot and have more data on whether this sort of cost information helps.

Diane: Homes receiving the DOE's score will also get this version of the recommendations report and there are technically, 600 people will one of these recommendation reports as part of the pilot.

Peter: We've not started doing DOE's scores in the market because we are waiting for some fixes in their model.

Diane: We still plan to go forward after with DOE, but we are using this customer recommendations report for the DOE scores too, not DOEs recommendations report.

: What does it cost for code windows vs. energy efficient ones? What's the incremental cost? Some people will look at incremental cost for their payback and not total cost.
Terry and Peter: That's a good point and it could apply to furnaces.

Holly: You're making a big jump that after a customer has a home energy review, they are going to call contractors. Maybe putting a price out there stops some people, but if you found the lack of price to be a drop off point this information creates a bridge and more confidence. I went through this myself. Contractors may get more business out of this.

Paul Case: I've been doing this for 25 years with PGE and NW Natural. Customers generally buy based on emotions, comfort, reduced chill and drafts, energy savings, and green. Customers aren't analyzing the numbers, even though you believe they are because you are the type who does it. You do a home energy review and hand out a list of 250 contractors, and customers go, "Huh?" They call 5 contractors, maybe 1 or 2 call back, and maybe 1 shows up. That may be the drop off problem. Payback numbers may not help, and a lot of dynamics are going on to get people to convert.

Mark DeFrancisco: I've been out selling heating systems, and I will hardly give a price over the phone. I want to take a look at things. I get on-site and discover they need a new furnace, but their attic and walls are empty. The original price is meaningless, if there are other problems. I don't see a lot of use for this information unless they really know what's going on in their homes.

Peter: To clarify, this is the leave behind from a HER. It would be additional information, and the HER would identify those types of problems. This is a piece of information after the customer knows what's needed in the home. We're talking about testing with this range, with these qualifiers, for people who have the info about what need to do.

Lauren: One of the goals is to get people to take action quickly. This information may be enough to cause people to save for a couple of years and plan further out. It may force projects to wait.

Terry: Good point. But these folks might wait just the same. We do track, over the years, how long it takes people to act. We'll track it and stick with our goals. We'll review to see how long it's taking. Not everyone is ready to go.

Lauren: They will look at the prices and put projects into their priority list.

Peter: Since this is part of the EPS pilot, we're talking to people and surveying them. We're finding out what info is valuable through evaluations. People will get the EPS score. We're going to find out what portions of the report are useful, confusing, or whatever. We'll ask if that motivates them. We'll ask what parts of this report were valuable. We won't know effectively for a while, except for the immediate things that instantly drove them forward, for other parts we will need more time to know. It's part of a whole way of making things visible to people and eliminating barriers. People complain about not having reference prices. We'll know what people like, right away, but it will take longer to know the full impact.

Diane: People will get a survey a week after their score and home review and 6 months after, and we'll do various follow through checks at 3, 6 and one year from receiving a score and recommendations report.

Lauren: I think your timeline may be too short. It may take people longer.

Mary Mann: I've been doing this since July 1, 1980, and I know Paul from that time. I was a gold contractor in PGE's program. PGE did this with costs, and admitted after many years of doing so, it didn't work. They weren't audit driven. NW Natural never did prices. Their incentives were based on gross of job costs. PGE drove the prices down. Windows were $14 per foot when they started. PGE collapsed the industry by saying what they should cost. People will know they are being referred by the utilities, and they will be getting customers who want the lowest cost. All people hear is that low number, and they will look for it from that contractor. That equalizes trade allies, and people will look for all trade allies to provide the same price. When I go into a home, I try to get people interested based on incentives and savings. I object to Energy Trust getting into our market and preventing us from getting into peoples' homes. We are in an instant gratification society. People aren't incompetent, but we are dumbing things down by telling people something they don't need. This info about PGE's program has been out there for a long time, and Energy Trust is wasting money reinventing the wheel and repeating it. I need to get into people's homes and build a relationship. I may sell them two windows at first, but then they call me back when they can afford more. If they are given prices up front, they will wait instead of calling me.

Jim Cole: From a distribution and materials standpoint, if this is important to you, how do you keep it current? The market is adjusting very quickly. Just today, one of the leading manufacturers announced a 15-28 percent price increase. If you wait 6 months to adjust things, you will hurt contractors' margins. If we always follow the market, it will impact profitability.

Terry: If you look at attic insulation, we created a wide enough range to account for those problems. If materials comprise 50 percent of total costs, and that part goes up 20 percent, it doesn't affect the overall as much.

Marshall: We did this analysis. We saw these changes and factored them in, and if you look at the differences, and how they washed from projects coming through, the fluctuation was more like 3 percent when levelized, rather than 30 percent. Our range accounts well for even big fluctuations. It was part of our analysis, and we want to go back biannually, so we don't spend a lot of time updating things, but do check our facts.

Jim: Prices tend to go up quickly, then slowly erode back. Eventually, it goes through the cycle again. Some people pay the full price of increases at certain times.

Holly: What percentage of people call back at 3 or 6 months after an HER?

Terry: About 12 percent after three months. It gradually goes up to about 36 percent by three years. We saw 66 percent at 3 to 6 months with CEWP with heavily screened customers. We try to learn how to triage customers more quickly in CEWP.

Holly: I don't know much about how my home works, but it doesn't make me incompetent. I can figure these things out. The energy advocate goes along with you and helps you decide these things, and this additional info may just be enough to push more work your way. I feel strongly we need something like this for the bulk of people who don't naturally get the house as a system concept.

Peter: At the next CAC we'll have a deeper discussion of the customer engagement process. We intend to use this as a test, rather than put it out there entirely for everyone. We're trying to decide if this will help for this one set of customers.

Andria Jacob: In the CEWP experience, the single biggest question was about costs and the financial picture. As someone who was on the receiving end of these questions, people aren't ready to talk to contractors until they understand how they fit into the big picture. This is another piece that will help drive uptake.

Paul Olson: I wonder if Debbie would react differently if this were being debated in the remodeling business? Are you planning to roll this out for commercial and industrial? I think I know that answer. You can imagine the storm on the commercial and industrial side. Are you going to solve for the chilling effect it will have on prices? It will have that effect. Why do people hire unlicensed contractors? Because they want a deal. You truly need to test for the chilling effect if you are truly going to test this. The question about staying current is relevant in the extreme. PGE's pricing scheme caused info to get out there for a long time, and it is tough to get the old info back. If customers got an audit months ago, they will still use the old info they were given when they call a contractor. Were I on this committee today, I would want to table this. It's horribly bureaucratic and patronizing of customers.

Bernice: Practicing transparency is good for Energy Trust and trade allies. Maybe we should break out the cost of materials and labor as a percentage, rather than dollar amount? I used to pay 48 cents per square foot for materials. It took a lot of work to bring the prices down. If we give material costs to the clients, if they go on their own to Home Depot, they would expect to pay the same price for materials, alone. We would be clear that it will cost the whatever material costs if they did it themselves. Then, if they follow our spec requirements, they are going to need to do air sealing and other things. If we outline all of this, it will be transparent.

Peter: Don't we give cost ranges and payback analysis on the commercial side?

Oliver: Yes we do, as part of studies.

Debbie: It's different from going into a house.

Don MacOdrum: Following what Bernice said, I come from a background of solar education and outreach. When a solar presentation is done, there is a price example given. It shows the possible cost, payback, and all the elements that go into it. People are there giving examples of their own experiences. Instead of cost range, do you want to use three price ranges: self install, average consumer, green leader? Tag a year to it, then run the numbers in the chart. If you follow this particular track, the cost will be this, and if you want the best "green leader" systems, it will cost this. They are varying numbers. In terms of reducing barriers to everything, maybe

this helps with emotional sales. The peoples' stories are going to be a critical part. This range is too vague, and it won't help people understand their homes.

Terry: This is one piece of the whole picture. We have much more to help people understand their homes. We're talking with them about all the factors that go into this. We need to strike a balance between a decision-making tool and information.

Bernice: This is a decision making tool.

Mark: CEWP has been a success because of the financing program. We're not offering that for the customer. Without it, we're laying down a $10,000 ticket on the counter, when it could be a $55 monthly installment. We can sell the installment, but not the $5,000 down payment check. Most people don't have enough in their savings, and I believe our closing ratio will drop. The whole package with the low payment is why CEWO works.

Bill Welch: I understand that as a contractor, you don't want to be hemmed in by published prices. This is one more piece of information. As a consumer, I want this piece of info. I'm green in my head, but I also have to be bottom line. It helps me decide what I can and can't do. I know I would like prices on the low end, but I'm not stupid. I know there are carpentry issues in my home, but this helps me as a consumer. I see the point that it could possibly hem people in. I've also gotten bids that have a giant range in them.

Holly: Maybe we need to say these are low and high of an average, rather than including outliers.

Wendy Gerlitz: I'm listening to everyone, and thinking of both sides. I'm hearing that this isn't doing it for people. There were a couple of alternatives from last time around. One might have been grouping projects into categories of costs. At such and such range you can consider such and such projects. Less information, but it gives people some idea of what category of improvements they can afford. You should try testing other ideas with the pilot, as well.

Peter: We were asked why we wanted to do this, and have talked about it for about a year. Previous discussions led us to cost ranges. We've been responsive to that discussion. As the CAC, we have agreed that customers want the cost information. We've been trying to give info that lines up with the data we have. We can test other ways, and it's a good suggestion. We have a proposal based on statistical analysis. The context and words around it need work. At this point, we need to know from the CAC if you support going forward with a test. That's the question. If it's a non starter, let's kill it, and look for something else.

Marshall: Do you want to define what the implications are for the EPS pilot, if we drop it?

Matt Braman: This is one piece of the overall pilot; I wouldn't see it having an impact on the pilot.

John Reynolds: I'm not prepared yet. When you tried a median price, people wanted a range. Now you give a range and people don't want it.
Not giving costs at all is more patronizing than giving a range.

Peter: We are on the path of giving people some costs. The range is in response to comments before, and making sure it's statistically based is in response to further comments. Providing additional information about the categories of costs will take more time.

Brent: We all have the same intentions, which are good. As a public body, Energy Trust is kind of obligated to provide the information. I'm worried about the self install costs, and maybe they should be stripped out. Contractors are not into selling material, but their services. The broadness of the range is a little troubling. Maybe home size also factors in.

Bill: I think the information is important to share. We're arguing about what's the information. Which information? It's valuable info that I would like to have as a consumer. We give it out in other ways and places. We need to figure out what's the right info to give out? Maybe that's what the pilot tests. I'm in favor of doing it as a pilot to see.

Holly: I agree with both of them. There is not hurt in doing the pilot. But, 200 homes may be too small to tell anything. In the end, my vote was no, because the ranges are too "ETO-esque." People don't know some of these things. We're trying to give people some sense of magnitude and something about payback. I don't see that on here. It's good that you guys are using the info you have and are trying to respond to feedback. We're partway there, but it's too blunt, right now.

Stan: I'm in favor of more work, and I'm suspicious it will have that effect. It may be lacking some of the key factors, and I'm glad you're testing it. I'm concerned that the industry is here, in big numbers, with all their experience, and their concern should give Energy Trust pause. They have an association that represents them, and we should be sitting together to work it out. It feels like one more lap around the track, with the industry, to come up with a system to balance things, should help.

Debbie: I'm concerned about the approach because the low and high labels sound like outliers, when you are actually using the middle of the data set. I like the idea of creating sample ranges and costs. People do ask about costs when they call me, but I can't tell people over the phone. When I don't tell them until I look at their home, I'm being honest and reality-based. I'm not comfortable with this, and maybe you need to include a broader range and more caveats. Customers want costs – it's their first question in remodeling. We can't honestly answer the question right now. It'll be this cost… Plus or minus about 500 percent.

Lauren: It's one piece to help customers decide. I go back to my market research experience. You need to set this up as a market research test. Did this really help them make a decision? I'm not sure this will do it. It's too contentious to do anything more than a pilot. Do a robust study of the pilot.

Wendy: I agree with the idea behind it. Cost info is a key barrier, but I am skeptical that as presented, it's the right info. I would like to see you, if your timelines permit, try a few other models. What if somebody thinks it's a good tool, and all the contractors are at the high end? Will they go forward?

Lauren: Would that outcome have happened anyway?

Matt: It's not our current pilot. It's for the EPS and not this. We haven't gone through the exercise of building this into the test. This is only one piece of the pilot. It would be worthwhile, but also very expensive, to do it. It's almost another pilot, altogether. We could get some feedback by including it in the existing pilot.

Lauren: Some can be done qualitatively.

Matt: We can get to some of this in the current study, but it's not isolated.

Don MacOdrum: Beyond taking this all back, I instinctually agree with everything people have said. In my experience with OMSI, their evaluation of exhibits, for example, are stringent. They don't put out anything without evaluating things on a range of levels, right then. If you drop a new random variable into the mix, I'm not able to support the evaluation. My greatest concern is whether the evaluation plan focuses on one and not the other.

Andria: It's critical to get cost info to consumers, and we need it to work for both consumers and contractors. There are questions about the credibility of this presentation. I think the question is "What about a house like mine?" What are most people doing and what does it cost most people? We have more work to do, but I hope we agree that we'll provide this in some form; not whether we do it, but how we do it.

Bruce: As a young consulting engineer, I used to think a cost estimate would make the customer happy with a low dollar estimate. Then the job would go out to bid and come in 3 times higher what we told them it would be. It caused lots of trouble. I'm in favor of a pilot project. This range-thing bothers me, especially at the low end. There might be a misconception that the contractor has to address. As an older engineer, I won't tell people off the cuff what it will cost. I talk in terms of payback, off the cuff, rather than costs and savings. If we could tailor this pilot study so it talks about the higher end of the costs, instead of the low end, I would be in favor.

Peter;
Our next steps are to come back with an alternative, and more specific language, to address some of this and hit the mark. We've been at this for a while, and there isn't agreement on what we should provide. To satisfy people, and be customer focused, we are going to bring it back to the CAC again. People want it. The low end was misleading, and good info came out of that. Whether that brings us back to point data, I don't know. People seemed to think before that was more misleading.

The EPS pilot will go forward for now without this data. We'll regroup on the ranges and rethink this. We need to think about the suggestions of providing an example of the green, low, and average tracks. It's a back door for taking you to the average house. We had agreed that pegging people to the average isn't good, so this approach may not work.

All of this doesn't describe something that will be ready by May. I don't know when we'll come back with something, but we will.

3. Carbon Reporting for EPS

Matt Braman presented carbon reporting information about the Energy Performance Score (EPS) reports.

Peter West: There's a carbon reporting piece to EPS. Recent, voluntary compliance legislation in Oregon recommended using an EPA E-grid, generic, regional number for carbon savings. Up till now, we have been reporting under another piece of legislation from about 10 years ago, as do the utilities. Matt will walk us through what we have always done vs. the E-grid option.

Matt: We are talking about the carbon multipliers used to show the carbon footprint on EPS certificates. It's like a miles per gallon sticker on cars. It's based on a home's characteristics, such as shell, size, heating system, and other related factors.

We have provided an EPS on new homes since 2008. Our Existing Homes pilot, for the limited number of homes will use E-grid data. E-grid data will cause inconsistency in the pilot phase for Existing Homes. As in earlier presentations, you have consumption and emissions, your home's score, and benchmarks. The carbon impacts in EPS are not intended for reporting to voluntary carbon registries. They help customers understand the link between energy usage and carbon impacts. We're not doing it the way Energy Trust would report. It's your carbon footprint.

The example given uses universally accepted amount of 11,700 lbs. of CO2 per therm. The question is: what basis is most relevant for the electric portion of the score? There are other sources, but generally there is E-grid from EPA, and ODOE's method, which was developed along with Washington State University's Energy Extension program and the Washington Department of Commerce.

Senate Bill 79 recommended E-grid sub-regions. We have a choice between SB 79 and OAR 860-038-0300. Utilities use the latter. The OAR is based on a 10 year old law. The OPUC and utilities didn't just make it up.

The table in the presentation shows the fuel mix and the carbon impacts. Using E-grid regions may understate carbon impacts, until you move into the sub-regions. A strong case can be made to go with either data source.

E-grid complies with SB 79, uses a common value for the NW, is adopted by large organizations, and online tools probably have E-grid numbers behind them.

Holly Meyer: What's the benefit of using a common tool if the number isn't accurate?

Matt: You can get into big debates over correct representation, however, it will be common across the NW.

Peter: If you are doing an Earth Advantage EPS presentation, since their programs are across the region, then the common numbers make sense. If you do a web based calculator, they often use a common value.

Matt: There's a value to having a common number just for Oregon. If consumers are shopping for homes, they could have different carbon scores in regions across the state, and between utilities, if they are using different methods. We do it now, on new homes, and can do it on existing homes. We are at least discussing it, according to voluntary rules. If we go against the voluntary rules, we should have a good recommendation and reason.

Peter: We have followed the OAR and used a different score for each utility territory. The new rules came out July or August of last year.

Bill Welch: If we isolated power to just what's coming from our region, it makes sense, but there's actually a different mix, and it becomes confusing.

Matt: It could get confusing from a homeowner's perspective.

The ODOE data is utility-specific, so customers are seeing it on their bill, and it will be consistent between bills and EPS. It's regularly updated, better accounts for market purchases, and is consistent with Energy Trust's New Homes program.

Peter: EPA's data says: if a plant is located in a state, the CO2 is assigned to that state. If you are Pacific Power for Oregon, there is no Wyoming or Utah power plants in the mix even though those plants help serve customers, so the carbon from your power usage doesn't get assigned correctly. ODOE's method accounts for owned facilities in other states and the exchanges at a utility level. E-grid assigns a generic number for a region, but loses utility-specific info.

Matt: Our recommendation is to use utility-specific data. Consistency with utility bill and EPS is more important and accurate.

Lauren Shapton: On the score, are you proposing that if someone is enrolled in green power programs, are you going to put carbon based on what you're purchasing. They're buying renewables and paying more, so will this account for it? I think it would be good to show if you're buying renewable power.
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Holly Meyer: Show both, right?

Lauren: Yes, showing both is a good idea.

Peter: We say something on the back of the form to mention changing carbon footprints.

Kendall Youngblood: It's an interesting idea. The intent of EPS is about the shell of the house, not the people in it. Green power programs depend on the people in the house, and it would invalidate the EPS score, if people sign up for green power or drop out of it. I would advocate for not putting green power on the EPS report because it will be variable. Carbon footprint info is supposed to be an introduction into thinking about these things.

Brent Barclay: What you are saying is the shell's footprint. Are you just ascribing the kWh that goes toward the home's consumption?

Kendall: It's the house but not the specific people. We look at it as the average people living in the house.

Holly: You could do both. If the house is empty, it's a non issue. You picture this if they're selling their house; maybe you use different shading to show it.

Lauren: I'm not saying you shouldn't have the baseline number. I'm saying show both if you've made decisions already.

Brent: Maybe it makes the choice stick better. It reinforces the intention of the customer.

Peter: Let's hold this discussion and come back to the question? Our perception is that we should continue using the utility-specific ODOE data. Are there thoughts on that?

Wendy Gerlitz: I'll offer supportive thoughts. I used to do carbon accounting for PGE. In the world of carbon accounting, the more accurate you can be the better.

Peter: We're trying to promote actions in energy efficiency. We need to think about how we represent that if we are suggesting people buy green power in lieu of taking efficiency actions. We want to be careful because we're trying to reinforce moving the house down the energy profile.

Stan Price: I'm sympathetic to Kendall's point. The EPS is based on an asset rating, and if you mix the fruit you don't have either one. You're trying to take the choices out of the equation and look at the shell and energy, using things in the building. There is room for a whole host of behavioral things. Accounting of that is important, but they should be kept distinct, because otherwise it dilutes the core of the EPS idea.

Holly: I agree. Why would someone get an EPS if they aren't selling their house? Is it just if they're curious?

Matt: The EPS is a low cost way to provide them with information on how to improve their score and increase participation. It could expand more to a contractor facing piece and score.

Holly: Why would someone do this? What would it cost?

Matt: Anyone who wants an HER could get it. In the pilot, it's free.

Holly: If someone is selling, the green power doesn't matter. How will it fit?

Marshall Johnson: If someone is getting a review, this is one of the leave-behinds we are testing. We're testing the tool first, and we may do it some other way; something to get the customers to take action provided by the contractor.

Holly: We don't want green power to be the solution. It's about using less and offsetting the rest. First you do the measures then you do the green power. I would almost rearrange things to show how to do it with efficiency then with green power.

Don MacOdrum: Are you lumping integrated solar with efficiency measures?

Holly: No, that wasn't the intent. At least the "use less offset the rest" concept would tie things together.

Peter: I hear support for using the numbers from ODOE's utility-specific methods and thinking about utilizing this to point to additional things people can do. We need to work on some language or recommendations people can do. After the pilot, we can use it to highlight other actions people can do to get toward 0.

Brent: You developed this in-house. The Oregon mix should be made clear. Is it just the IOUs or the whole state's mix? Is it the ETO footprint?

Matt: It's the mix for the whole state.

Holly: What about oil? Would there be some way to use it for oil customers, and prompt them toward cleaner fuels?

Peter: There was a bill in the legislature to do that but it didn't make it.

Paul Case: Won't the new modeling program for Home Performance audits show a higher score for oil heat, and dramatically drop it for switching to gas or electric?

Marshall: We'll have to look into it.

Peter: Any other comments? Thank you for staying late and working through these things. We'll save the Operations Pilot discussion for the next meeting.

The meeting adjourned at 4:25 pm.