CONSERVATION ADVISORY COUNCIL
Notes from meeting on March 13, 2013

Attending from the council:
Lauren Shapton (for Anne), Portland General Electric
Juliet Johnson, Oregon Public Utility Commission
Don Jones, Jr., Pacific Power
Scott Inman, Oregon Remodelers Association
Andria Jacob, City of Portland
Karen Horkitz, Northwest Energy Efficiency Alliance
Jess Kincaid, Oregon Department of Energy
Jon Belmont, Oregon Department of Energy
Joe Esmonde, International Brotherhood of Electrical Workers

Attending from Energy Trust:
Kim Crossman
Oliver Kesting
Elaine Prause
Tom Beverly
Scott Swearingen
Phil Degens
Amber Cole
Spencer Moersfelder
Dan Rubado
Kathleen Belkhayat
Paul Sklar
Fred Gordon

Others attending:
Jeff King, Energy Trust Board of Directors
Mark Kendall, Energy Trust Board of Directors
Tracy Scott, Lockheed Martin
Curt Nichols, ICF
Dan Reese, PECI
Jeremy Anderson, Weatherization Industries Save Energy
Alex Inman, ICF
Whitney Rideout, Evergreen Consulting

1. Welcome and introductions
Kim Crossman called the meeting to order at 1:35 p.m. and reviewed the agenda. The agenda, notes and presentation materials are available on Energy Trust's website at www.energytrust.org/About/public-meetings/CACMeetings.aspx.

2. Old business/updates
Kim: There were some old business items to revisit from the last Conservation Advisory Council meeting. Scott Swearingen has additional information about multifamily weatherization to cover.

Scott Swearingen: At the last meeting, we talked about the possible elimination of some multifamily gas measures. We wanted to give insight into where the program is finding savings. Most multifamily savings are coming from the custom track and direct installs, which are mostly water-saving devices. We've found that the smaller the property, the more likely they have natural gas service. Larger ones are usually electric. There are new prescriptive measures for gas, and we now have three distributors for high-efficiency clothes washers and more buy-downs planned for high-efficiency water heaters.

Jeff King: What types of water heaters are we talking about? Gas tankless or more advanced conventional ones?
Paul Sklar: These are tank 0.67 Energy Factor water heaters.

Mark Kendall: So these have no pilot light and higher insulation.
Paul: These are the ones without pilot lights and with dampers.

Fred Gordon explained that the 0.67 EF is a rating, not exactly a percentage.

Scott S: The OPUC approved these weatherization measures under our existing exception under UM551, so we'll continue with ceiling and floor insulation. Multifamily will still include ceiling and floor insulation for all multifamily properties with gas space heat. Small multifamily will continue offering incentives for wall, knee wall and rim joist insulation.

Paul: We ended up lowering the maximum existing insulation levels for which we'd pay for additional insulation to help with cost-effectiveness.

Scott S: Where the cavity allows, we're going to align ceiling insulation with Oregon Department of Energy requirements at R-49. We will move ceiling insulation to incentives of $0.25 per square foot. Previous incentive levels will be honored at old rates if submitted within 90 days.

Kim: For those who weren't here at the last meeting, we had planned to end some multifamily gas weatherization measures when we covered this at that last meeting. After hearing your feedback and speaking with the OPUC, it turns out that we are able to continue them under the OPUC approved exception. We are coming back to the council to let you know about the change in plans.

Jeff: If the cost of natural gas is going down, it seems like more insulation would do less for you; basically adding more cost for less return. Is that accurate?
Paul: Yes. However, the change to R-49 will align our requirements with the tax credit. For the societal test, we're allowed to remove the dollar amount of the tax credit for cost-effectiveness testing.

Jeff: So increasing the tax credit can solve the cost-effectiveness issues?
Paul: Technically, it can diminish the cost-effectiveness issue.
Fred: The societal test compares the cost of measures to the forecast market cost of power or gas, which is a forecast that already incorporates tax credits as a deduction. Therefore, the OPUC has determined that it is appropriate to also deduct tax credits from the total cost of efficiency measures prior to comparing the two.

3. OPUC performance metrics
Elaine Prause covered the approved OPUC 2013 performance metrics for Energy Trust.

Elaine: Our annual performance measures were approved by the OPUC two weeks ago. They are a way for the OPUC to see how we're doing, to essentially take the temperature at any point. Poor performance is a signal that some type of intervention should happen to keep things on track. These are the floor requirements, and our board-approved stretch goals push us to go beyond the OPUC performance measures and each utility's Integrated Resource Plan. The need for these OPUC performance measures is outlined in our grant agreement with the OPUC. They come out of the budget process that happens each fall. Renewables are considered separately. This April, we will submit to the OPUC our annual report detailing last year's progress to the 2012 performance measures.

Mark: How do things look so far?
Elaine: They look great, but it's early. Results will be officially available in April.

Charlie Grist: How involved are the OPUC commissioners with these measures?
Juliet Johnson: We get stakeholder input and the commissioners get involved in portions of the discussion. They looked at the measures this year, but had more involvement in the efficiency metrics last year because we were designing a new format and process. This year, we had a discussion about whether goals should be 10 percent below utility IRPs or set at IRPs. This year we also need Energy Trust to report on some status updates at six months.

Elaine: This year, our goals end up at 47 average megawatts for electric at a levelized cost of 3.9 cents per kWh, and 4.6 million therms of natural gas at a levelized cost of 57 cents per annual therm.

Charlie: Looking at the slides, does this mean that conservative levelized costs of measures were at 3.7 cents?
Elaine: We do have a bit of a cushion with the 3.9 cents on the slides.

Jeff: How does this compare with 2012?
Elaine: Savings are going up and levelized costs are going down from 2012. We don't have our cost report yet, but our carryover is higher than we projected. Taken together, it seems like the costs would be down.

Charlie: What is carryover?
Elaine: Carryover funds are any extra funds budgeted for that we didn't use in that budget year.

Scott Inman: So how does that fit with 2013 costs?
Kim: Spending was lower than we expected for the savings we achieved, so it's good news. Carryover lowers the amount of revenues we would need for 2013.

Mark: On the market barriers for renewable energy, were those established prior to this?
Elaine: We identify needs under each technology and tie them to our action plans, so we can be proactive.

Jeff: How is the standard program conservative generation goal established? It's probably not in the IRPs?
Elaine: In our budget we can use the previous year's cost trends to plan for the coming year.

Jeff: Where do the customer satisfaction numbers come from?
Elaine: Fast feedback results help us determine customer satisfaction.

Scott I: Who are the customers for satisfaction?
Elaine: These are actual participants.

Scott I: It seems awfully low.
Elaine: It's measured on a 1 – 5 scale, but only looks at the fours and fives.

Fred: There is no single definitive methodology for measuring satisfaction and different people get really different results as a consequence. Also, not every program comes in the same. For example, multifamily customers may want higher incentives for windows in situations where we can't cost-effectively provide them. So they aren't going to be completely satisfied.

Kim: It's a five-point scale, and if someone answers three, which is basically satisfied, they aren't really counted as satisfied. If you include the middle group, it's a bigger number.

Scott I: The most important way to measure satisfaction is: “Would you refer us to others?”

Kim: Would all of you like to see the surveys? They are short because they’re meant to be a five minute phone call.

Scott I: So these are phone surveys? I wouldn’t be satisfied right away, if I was bugged by a phone call.
Kim: Most people do have glowing things to say. Of course, we’re calling after they receive their incentive check, so that helps.
Juliet: I’ve seen it as percentage of customers saying satisfied or very satisfied. This used to be less stringent for the OPUC, but they changed it on us. The commissioners didn’t like 75 percent for that measure, but they may not have understood how we measure it.
Mark: We may want to classify threes some other way, to help.
Andria Jacob: In my experience, it’s standard to use the top two boxes.
Jeff: The nomenclature may be a problem.
Lauren Shapton: A good example is a typical restaurant survey. You may say you’re basically satisfied because it met your expectations, but that doesn’t mean you’ll go back.

Elaine: There were a few follow-up requests from the OPUC for later on. One request was about whether the 10 percent difference between the conservative budget case and the levelized cost metric should be 15 percent. Another was state mandated solar projects. The last was whether the $40 per allocated MWh for non-solar custom projects is appropriate or too high.

Charlie: Is the 10 percent difference for efficiency or renewable energy?
Elaine: That’s just for efficiency.

Fred: Going back to the customer satisfaction discussion, I just confirmed things with Phil. On the rating scale, one is very unsatisfied and five is very satisfied. The middle points are customer defined, we don’t give them names. Threes are not counted for customer satisfaction.

Juliet: So the middle isn’t reported to the OPUC, just the fours and fives.
Fred: Yes.

Kim: This topic of performance metrics gets addressed at the board level quite often, but it’s good to have some visibility here at Conservation Advisory Council.

4. Commercial sector trends
Kim: Oliver will present our commercial sector deep dive using data from 2012. It’s a chance for us to look back before we start working on our 2014 action plans in just a couple of months. Industrial will present at the next meeting, and the residential deep dive will be presented in June. Commercial might be the toughest one to do because it includes Existing Buildings, New Buildings, multifamily and many complexities.

Oliver Kesting: Thank you to Kevin Havice, Jessica Rose, Scott Swearingen and Spencer Moersfelder for helping pull this together. The commercial sector is made up of multifamily, Existing Buildings and New Buildings, all with Program Management Contractors, PMCs. There are also non-PMC initiatives, like Strategic Energy Management, SEM, and more than 80 Building Operator Certifications, BOCs.

Oliver continued: We went back four years to look at trends. Today we’ll talk about how those trends impact us going forward. The contract for Existing Buildings was recently bid out and ICF won the bid. PECI has New Buildings, including major renovations. Multifamily includes existing

multifamily properties, and new multifamily properties are handled in the New Buildings program. Our trends use working savings, so they aren't thrown off by evaluation factors from year-to-year. Our 2012 reportable savings were incredible. We were challenged by a struggling economy, but the biggest challenge was the Existing Buildings rebid. That was a huge effort. Lockheed Martin went through the rebid and delivered great savings at the same time. Spencer had to deal with running the program and the rebid. Overall, we met or exceeded stretch goals for every utility.

Don Jones: Are data centers in this sector?
Kim: Yes, unless they are sited at industrial sites. Stand-alone data centers, including the big new data centers, are in commercial.

Oliver: The slide about sites served shows projects that are closed, so it doesn't include outreach efforts or studies that haven't yet resulted in savings. Since 2009, we have more than doubled the number of sites we serve. Existing Buildings doubled, New Buildings is up by 50 percent and multifamily has increased five-fold.

Mark: Do you track savings per site to give insight into whether data centers make up the change?
Oliver: We do look at that, and savings per site are going down, sometimes dramatically. We are seeing more, smaller projects across programs.

Oliver continued: 2010 on the chart includes a megaproject, and if you pull that out, it would be a straight line trend over the four years. On the therm side, we're seeing steady growth. 2009 was the first year of the new PMC for New Buildings, and new construction projects have a long lead time. They had an empty pipeline in 2009 for New Buildings, so many came through in 2010 on the gas side.

Charlie: On sites served, savings are going up. Sites are going up, but savings per site are going down. There's probably some exponential growth. Is that increasing your administrative costs?
Oliver: Delivery costs are definitely going up, because there's more outreach required. But we are also employing different strategies to keep costs down. We're leveraging trade allies more, for example.

Mark: If levelized costs are going down from previous years, it may mean something else is making up the difference.

Kim: Strategic Energy Management is an example of bending the cost curve and offsetting other programs on the industrial side.

Charlie: As you tap the market more, you have to squeeze more out of it, and many of us would be interested in seeing those trends.

Kim: Our industry has this philosophy that the higher up the tree you go, the more expensive the savings become. We consider ourselves lucky that we still went for the higher things, but didn't see our costs go up in the short term. It's exciting news for us.

Fred Gordon: We still think long-term costs will go up, unless there are newer, cheaper technologies, which seldom is true. Many of our new technologies are cost-effective but high-cost. We have to go after savings however we can. We know that trends in overall cost don't happen suddenly.

Oliver: To manage costs, we've taken a multi-pronged approach, including internal streamlining, balancing our approaches between high- and low-cost measures and trying to create more cost-competitive market conditions for contractors. We're going to look at the gas measure mix in the next six months, for example, to see if all the measures stand a good chance of being cost-effective, either now or in the near future.

Scott I: As you get further into the life of your measures, and you get more actual savings numbers, are you adjusting things using the real numbers?
Fred: We do. Our reporting on the past is trued up based on evaluation. Also our going-forward estimates of savings in the budget and our working savings are influenced by prior evaluations.

Kim: Many commercial projects are custom. Can you explain how that works for custom?
Fred: Yes, for custom measures, the working savings estimates are based on the individual studies. For prescriptive measures, the deemed estimates are what is reported in working savings, and are influenced by prior evaluations. Commercial and industrial are a mix of the two.

Mark: The differences between working and reportable savings are part of it.

Oliver: The reportable savings take into account our realization rates and customer behavior. As we get feedback from evaluations we adjust our anticipated savings based on those factors.

Kim: For this presentation, we use working savings estimates. If we used reportable numbers, we wouldn't see trends in the market, because the evaluation factor numbers bounce around from year to year.

Oliver: One major shift is that lighting went down significantly. It's currently at 25 percent of savings, and was about 33 percent last year. Data centers filled part of the gap.

Charlie: You have to be careful when you measure those shares since the savings differ from year to year. Did overall lighting go down?
Oliver: Yes.

Oliver: The lighting change was due to the fall bonus in 2011, which was very aggressive and drove future savings forward into 2011. We anticipated that the new federal standards on lighting would reduce our potential, but there hasn't been as much of an impact as we expected. Less efficient lamps have been made to meet the standard, and they don't shift the baseline. The standard change for ballasts in 2014 will likely have an impact. The Northwest Energy Efficiency Alliance's lighting design pilot will push customers to know how to do more complete upgrades. We're also pushing outdoor light emitting diode, LED, lighting; and see big potential there. Also, operations and maintenance, O&M, has grown significantly, which is primarily rooftop unit tune-ups and SEM.

Mark: Do you have any idea what the shares are between rooftop units and SEM?
Oliver: I don't have that for electric, but you'll see that on the gas side as a big jump in rooftop units.

Oliver: We've talked a lot about building the business case, and we're continuing those efforts. We're contracting for a tool that will help energy champions make the business case to internal decision-makers. It will help them sell projects internally. We're also expanding key account management, especially for larger customers, to help them plan. SEM is geared toward O&M, and also is a good roadmap to help identify capital projects and revisit customers with those

ideas. We've seen a lot of challenges around the Resource Conservation Management Pilot because of the costs. We're shifting those efforts toward a light version of SEM, to provide an option to customers who don't qualify for SEM because they are not organizationally ready or don't have enough savings potential.

Mark: What do we learn from Building Operator Certification that informs SEM or resource conservation management about cost and benefits?
Oliver: There are so many resources we can pull in, like Kilowatt Crackdown and Building Operator Certification training. We are coordinating with other folks to see what we can pull together for the light version of SEM.

Mark: It might call for a look, not by track, but by behavioral and maintenance. Where are those growing? Building Operator Certification is mixed in with solar on the presentation slide.
Oliver: Building Operator Certification is not PMC-managed, so we categorized it with the other non-PMC efforts in the slide. Building Operator Certification really should be included as O&M if you want to look at O&M savings as a whole.

Don: Have you looked at funding for energy performance managers? With that, you would focus on electrical usage versus gas, garbage and water savings. You probably should keep looking long term.
Kim: Considering funding staff at customer sites to tackle energy is a cross-cutting topic across our business programs. In a lot of ways, the commercial sector SEM is aligned with industrial, but about two years after us. We considered going with Energy Project Management, EPM, but decided to invest in small industrial offerings and scale them out as far as they can go. It seemed nearer-term than the EPM strategy, which is pretty expensive. We are anticipating an American Council for an Energy-Efficient Economy paper about other programs that have an energy project manager element, such as the Bonneville Power Administration offerings, and we are trying to get more information. We're reluctant to just jump in because of the costs, and aren't sure we would get more benefits than we already get through SEM.

Don: Pacific Power has rolled out Resource Conservation Management, RCM, in a couple of states, so it will be interesting to see the results.
Oliver: The champions within SEM really see the benefits in O&M. For those who aren't organizationally ready, they would get value from an RCM offering, but we're finding it much more cost-effective to get the customers to see the value and change in how they invest their resources.

Oliver continued his presentation: In New Buildings, we developed the small commercial offering to help customers with more of a prescriptive approach. It's a simpler way to apply for the program. With New Buildings we have a very involved, early design approach, and small customers sometimes dropped out.

Charlie: Are you having any early feedback? The small building market is a tough nut to crack.
Oliver: Not yet. We're also offering design assistance for new data centers. Multifamily is expanding its custom approach and midstream buy-downs.

Charlie: On the presentation slide, is the New Buildings custom wedge all from data centers?
Oliver: About one-third of that is from data centers.

Charlie: We've had a couple of years without much building, but we're still seeing good savings. Also, in 2014 the ballast standards are going to have a big impact, correct?

Juliet: In lighting, the baseline didn't go up this year. Why was that, again?
Oliver: The federal standards aren't as rigorous as we expected.
Spencer: Manufacturers are producing some T12s that meet standards set by law. Manufacturers also received waivers from the federal government to keep manufacturing 700 series T8s that would otherwise no longer be allowed under the law

Juliet: So the baseline hasn't changed, but how do you decide that?
Fred: We thought that the federal standard for T8 bulbs would have a big impact on the market, saving energy but also increasing our baseline; when people purchased bulbs, they would need to go to T8 fixtures and save a lot of energy. So we raised our baseline to a higher level, which decreased the program savings per bulb and ballast. However, there's a loophole in the standard that allows less efficient high-color rendition index bulbs, basically high-quality visibility bulbs. They were very expensive but manufacturers came up with a cheap version of the high CRI bulb for a T12. So we've adjusted the baseline to this less efficient product. Since it's the cheapest product that's compatible with existing fixtures, it seems that most folks will put this in. After the standard for ballasts, as opposed to bulbs, hits in 2014, if the federal government keep the standard at the planned level, then we think most people will get to the more efficient T8s when their ballasts need replacing.

Mark: They're minimally legally compliant.

Charlie: We know we're going to continue dealing with this because of implementation delays and other things.

Juliet: I would like you to continue being conservative on this.
Fred: We are basically trying to anticipate what will happen. We were too conservative at first and are now adjusting to where we think, with new information, the market will go. When we get data on actual sales, we'll know with more confidence.

Mark: So that's about how much of the game?
Fred: It's about 20 percent, so it's significant.

Oliver: On the gas side, New Buildings custom savings have dropped, and that is due to code changes in 2010. Interest in Leadership in Energy and Environmental Design, LEED, has also dropped. Large buildings tend to be interested in LEED. O&M has grown significantly, with SEM, the controls pilot and rooftop unit tune-ups. Seventy-five percent of that wedge is from rooftop unit tune-ups.

Charlie: That's our heating savings.

Kim: Phil will be presenting information on the controls pilot, also.

Oliver: The steady growth in Existing Buildings leveled off in 2011 and 2012, when fall bonuses drove lighting savings forward. Gas savings have had a pretty constant ramp. We're looking at program design, reaching out to small and hard-to-reach customers through trade allies, and more outreach services in outlying regions. As for market conditions: the 2011 Business Energy Tax Credit changes were a shock to the system, but customers have moved on. Folks have also come back to capital investments.

Mark: Are there plans to look at the additionality of the Business Energy Tax Credit? Are there methods to determine additional impact of the state incentives?

Fred: We've not been successful in measuring that. We ask customers, but find that if we're offering consistent money, that's what works best. Where the tax credit is converted to cash via use of a pass-through partner, it's definitely more influential. It's difficult for customers to distinguish the influence of tax credits versus incentives when they're receiving both.

Andria: Do you know where the segments are, based on building size?
Oliver: We recently looked at that, and I was surprised at how many small ones were coming in. Many were under 10,000 square feet.
Fred: Out of our sample of one third, I think we had 1,500 projects under 20,000 square feet.

Andria: It would be interesting to look at that geographically.
Kim: I wonder if we could consider some analysis and charts for the commercial sector trends report, which may be interesting.
Fred: We may not have the data geographically though. We may not have enough data to support it.

Charlie: Indicators of how the Trade Ally Network is tapping into large and small projects, by region, would be interesting.

Oliver: Savings trends for gas are pretty straight-lined. NW Natural DSM is lumpy, and goes up and down based on who participates in a given year on each of two rate schedules, both of which cover commercial customers. Some commercial customers are on an industrial rate. These customers land on the industrial rate, and we should look at NW Natural overall. Cascade Natural Gas is lumpy, too, because of small and large projects.

Kim: Let me explain Integrated Demand Side Management, IDSM, while we're on the topic. One of our revenue streams from NW Natural is the public purpose charge, but other customers who were not subject to the public purpose charge or eligible for programs came on in 2009. They are contributing through a special rate adjustment. They are usually the largest customers who buy their gas from NW Natural, not other sources, and some of them are commercial customers.

Charlie: How does cost-effectiveness look on the gas side?
Kim: We haven't done the financial analysis for these trends; we are focused on savings to inform future program strategies.

Scott I: Are all the incentives paid to building owners, or are they also trade allies and others?
Oliver: All incentives are paid to the customer, but sometimes they assign their incentive over to a trade ally. On Existing Buildings we have also fees paid to the engineers who do studies for us. New Buildings has design incentives to support analysis.

Scott I: There aren't any lighting distributor incentives, for example?
Oliver: On multifamily, we have clothes washer and refrigerator buy-downs.

Spencer: For the first part of 2013, the lighting team negotiated with distributors to get reduced pricing for customers for low-wattage T8s. The distributors are seeing an opportunity to sell more products with these reduced pricing, because Energy Trust is promoting that type of lighting so we will not need to provide additional incentives to get increased uptake on these measures.

Oliver: The key measures may or may not show trends. Overall we see an increase in lighting and building controls; HVAC tune-ups are probably the biggest increase. Some of the bubbles are based on program adjustments to activity.

Scott I: For gas weatherization, is the insulation change due to the Business Energy Tax Credit?
Spencer: With insulation it's difficult to establish a baseline for those who have any existing insulation already. We're working to gather more data to get a better understanding of common baseline conditions in the market. A combination of previously served customers that were interested in insulation coupled with a reduced push on the measure in order to manage gas budget has reduced the amount of gas savings that have come in from insulation.

Mark: For gas savings, a commercial facility has to have no insulation to be eligible?
Spencer: Yes. It's a small subset, but it's tough to tell where to draw the line. I don't know of any great data that gives us a sense of the baseline condition for insulation in Oregon. There is definitely such data for the measure in the small buildings market. We just don't yet have data to justify cost-effectiveness for projects that already have any existing insulation.

Oliver: In New Buildings key markets, warehouse and education have dropped out of the top five for electric savings. We have more hospital and auto services instead. Most of this was driven by SEM and our auto dealer lighting push in 2012. On the gas side, faith-based organizations dropped off and government popped in, again due to SEM. New Buildings expanded design assistance to include more early involvement. More program allies are included and solar designers help us make more buildings solar ready.

Jeff King: What do you mean by solar ready?
Oliver: Solar design allies look at the structure, look at roof space, chase-ways for wiring, and prevent concerns for later solar installations.

Oliver continued: We also did support for code compliance. It looks like folks are getting up to speed with code, and 2010 code was a big jump, so there is less room for efficiency improvements. There were some large buildings, but an increase in smaller ones. In 2010, we also had the Oregon State University combined heat and power megaproject.

Mark: It looks like code is the difference in 2011 and 2012.
Oliver: We saw a baseline shift in 2011 and it really shifted in 2012. A lot of the gas drop is due to code.

Oliver continued: There were more small projects; data centers were also significant, and they are really savvy about energy efficiency. They ratchet up their standards for design, and there's a shifting baseline. There are big savings from data centers in savings by track. Code assistance and market transformation savings also had big trends.

Kim: We may want to dig into market transformation and how we work with it as a future topic.

Oliver: On gas, multifamily just popped into the top five for new construction.

> Multifamily is shifting toward long-term customer relationship development. We have historically low vacancy rates, so there are fewer opportunities for major renovations. 2011 was the first year of the new PMC with a different approach. They leverage more trade allies, and worked to increase awareness and build relationships. They also have more small projects.

On the gas side we had more activity in custom, with deeper relationships and building larger projects. There was more push on instant-savings measures for lower income. Custom is mostly made up of boilers.

Multifamily served a lot more sites, nearly double since 2011. We are seeing instant-savings measures counted and also appliance buy-downs. There were more customers, but smaller savings compared to windows and insulation.

Kim: There is a lot to the commercial sector, and the reality is that we have a lot to cover and only so much time to do it with this group. We'll try to create some momentum along annual processes, and will continue with the sector deep dives when we come back next time.

5. Commercial pilot evaluation results

Kim: Phil is doing an overview of a pilot on energy management systems, and also has a schedule of planned evaluations.

Phil Degens: The building performance tracking and control systems pilot is an intersection between people and systems. It's been going on since 2011, with three systems and services: EMS, AIS and AOS. These were not just systems but also offered services with real-time feedback. We started in 2011, and when we first started, we planned to recruit everyone within two months, but it didn't quite happen. We had an initial goal, and changed to the current goal. AOS is more costly, and focused on a small subset of buildings in Oregon.

Mark: Could the utilities have helped find people?
Lauren: We can help you locate the right customers when you have this kind of problem.

Joe: Also, have you talked to any contractors' associations?
Phil: I haven't. The expectation was that the folks in the field trying to sell these things would do it. The low uptake was due to a slow economy, subscription fees and unfamiliarity with the systems. EMS was about $15,000, AIS about $20,000 and AOS about $50,000. People installing needed to consider the costs. It was offered in Washington with a higher incentive, but there was low uptake there, too.

Phil continued: We have an evaluation team, Cadmus, and will interview people right after systems are installed and training is done. One year of experience with the system is needed. We are only doing EIS and AIS, since they have already sold systems. We preferred ones with more marketing support, and maybe the utilities could have helped, also.

Karen: How did you set the pilot up? What were the qualifications to consider something to be a pilot site? Are you looking at just the systems or other factors, too?
Phil: If they are doing the systems, we won't do other capital projects with them. That was one of the requirements.

Karen: Are you looking to identify buildings where there's no SEM? We've worked on this for a while, and a repeated question is that SEM has a set of changes, and if you don't have a feedback system it's difficult to maintain. How does it interact and what is the impact of SEM with a great vs. not so great tracking system?
Phil: We are looking at a "just-the-facts" model vs. one where we have to tell people what to do.

Fred: We're running this through heating, ventilation and air conditioning, HVAC, contractors and targeting smaller buildings that may not have as much onsite staff. SEM works when there

is onsite staffing and a management commitment to dedicate resources to manage and track energy use. We convince them to invest in their staff.

Kim: We've been testing competing strategies for making O&M changes, not solely SEM. This mimics work done in the industrial sector, where the Kaizen Blitz focused more on feedback and technical opportunities, nuts and bolts, but there's no focus on cultural change involved.

Phil: With this pilot, a lot of the expertise is outsourced.

Mark: In the 15,000-square-foot range, they may not even have a building operator.

Phil: The ideal customer is described as active. They don't want someone who ignores their email, and the like. They are actively improving their building operations. There was high satisfaction with vendors, support and monitoring systems. Training was seen as great. One had an odd reason for installing it, which was to prove how bad their existing building was so they could build a new one. Customers with tenants used it to better manage their tenants. The constraints were the typical ones. The recommendations are included in the meeting packet.

Mark: Were there demand changes?
Phil: We found that information on demand changes might not be as important here in the Northwest, but if you want to go elsewhere, you need to have that information.

Phil: This handout today covers our evaluation schedule for the year. The dates on the schedule are approximate, and that should be taken into consideration. If you have specific interests about evaluations, you can always ask me. I welcome the questions, and am always happy to talk about evaluations. In the schedule, you'll see a large number of pilot evaluations for all sectors.

Juliet: When you do a pilot like you just described, you don't attribute it to the measures you're testing, but where do the costs show up?
Phil: They show up in program costs. Estimated savings from the pilots go into the programs, also. We don't want the program to have 30 percent of its costs based on pilots. There are lots of questions and uncertainties on those. We use previous projects from engineers with experience to build our estimates, but we don't want to burden single measures with the cost of a pilot.

Kim: With SEM, we were pretty sure there would be enough savings to cover the costs, but often times pilots are new and innovative, so we don't know if they'll pan out. There may be inside delivery, contractors, staff time or sometimes we can leverage a free sales force. We often face time constraints; there isn't enough staff time. The opportunity costs are a big thing.

Juliet: Labor is a critical resource, and how you use it would be a good discussion for us to have.

Fred: How do we get our arms around all of it, because pilots are about many things? Some other things we do are just initiatives, not pilots, because they don't have the necessary research elements. The board is engaged in risk and innovation policy. Most of your spending should be about delivery instead of innovation. They decided that the delivery side is the area where we should focus.

Charlie: It may be good to tell the Conservation Advisory Council about pilots. The board has already covered it and limited things.

Fred: Regarding an overall review of pilots, it might be good to take it on, one sector at a time, and in a controlled way. Otherwise, it's too much to cover.
Kim: Last year, all the sectors brought their pilots and innovations to the Conservation Advisory Council in the spring, so you've heard about many of these before. The information is out there, probably about 80 percent of it.

Juliet: I would be interested in how you decide what's a pilot and what's not, just the process.
Kim: We can look at that, and Fred has a lot of that information.
Charlie: NEEA does a lot of that, and RPAC covers it.
Kim: There are similarities, but not enough.

Charlie: Okay, so what is memory care?
Phil: These are care facilities for people with Alzheimer's or other memory problems. We've seen an opportunity here because code for higher level memory care facilities, defined as licensed by the Oregon Department of Human Services, requires lighting upgrades. If they are already doing it, why not assist with lighting templates? There could be as many as 450 facilities.
Dan Rubado: We are working with three of them for the pilot.

6. Serving on the Conservation Advisory Council in 2013, part two
Kim: Since we have so many council members out today, I would like to have the rest of the discussion and not make a recommendation. We can do that at the next meeting when we have everyone here. Last time, I mostly just listened, and people communicated a lot of positive intent, commitment, good questions and a little bit of feedback. I wanted to start today by at least bringing up things we had answers to.

> One question received at the last meeting asked what is the purpose of the Conservation Advisory Council. The purpose of the advisory councils are to review and discuss selected energy-efficiency and renewable energy issues prior to board of director decisions, so staff and the board have the best available information. It's also to help identify alternative resolutions of those issues, and help staff identify matters for board consideration. So, we are an advisory committee. We also want to improve the way we operate together, which is why we're looking at our operating principles.

Mark: The council helps us gain an understanding of program performance from the perspective of all parts of the market. The board needs that market-intuitive, finger-on-the-pulse information. A lot of our effectiveness comes from these things that can't easily be measured. It's not just about data. Are the criteria or metrics being applied to make decisions on program design or scope informed by not only the OPUC's math, but also by the market? It's about considering market intelligence, like where PGE can step in to give us a list of people with small chillers for a pilot. This group may provide that advice, and how it relates to board policy decisions.

Kim: Your perspective is very close to what we heard last time from all the council members. We also haven't had any program crises lately, and it's possible that has starved the coucnil for things to focus on.

Mark: Another role might be mining the knowledge we gain from RVSA or CVSA.

Jeff King: What's the percentage of strategic thinking, as an agenda item for the board, that passes through the Conservation Advisory Council? What things should come here for discussion?

Kim: We haven't had the Conservation Advisory Council proactively develop items itself, and it has more often been staff-generated items where we want advice. It's one level of strategy, but from the board perspective, it's viewed more as market input. In reality, this is a diverse group, one that is more representative of nonprofits and utilities.

Kim continued: The board receives and reads the Conservation Advisory Council minutes. Last year, we revamped the process to put the most current minutes into the board's hands before their meetings. The board members read them and regularly reference things they read in council notes. Our feeling is that we have a knowledgeable, active and engaged board. Board processes often drive Conservation Advisory Council agenda items, also. Budget items in July are an example of this situation. The board also sends representatives to sit at the table and participate in council meetings. They don't make recommendations, because they get to do that as board members.

Andria: In the time I've been here, there is usually one board member at the meetings. A meet and greet with the board would be helpful, because we don't necessarily know all of the board members.

Fred: Historically, there have sometimes been two board members here. That's fine, but even one is great.

Jeff: This isn't like an appointment, so whoever wants to come from the board just shows up.

Kim: That's a good point to make for the Conservation Advisory Council. It's not formal, but it's a good connection. The minutes are a primary way things get to the board. The types of things the board tackles are not the same as what the council tackles. You may weigh in on something, but it's really for the staff, and then the staff will make decisions on what is presented to the board. You are expected to have more of the on-the-ground experience. It could be called tactical, but it's a higher level than that.

Kim continued: Staff wants your best thinking, advice, expert opinions and external perspective. We don't want anyone to take off their other organizational hats. We want those perspectives, as long as you're telling us the perspective you're coming from. This could be made clear by saying, "I'm just speaking on my own perspective." Our programs are often out on the cutting edge and sometimes we feel like we're hanging out there. We'd like you to be with us. You represent the other organizations in the environment we work in. That understanding helps us a lot. So, these are the program staff perspectives and needs. All of these things we work on that are listed are risky.

Charlie: This is good information. You went around and talked to staff as we asked, and this is what they gave us.

Don: These are great guiding principles, but the board always expects the Conservation Advisory Council to weigh in on the budget, and staff has their own collection of things. At the end of the day, we're advisory and you are paid staff. We could meet every day and help you run your business, but that's what you're here to do as paid staff. We should always do budgets, look at course changes and the collection of regular items staff wants. Other items should just be nice to have. Maybe a list of things and priorities would help.

Kim: I've developed a draft annual schedule of things that we know we need from the Conservation Advisory Council, plus ones that we know we need when they come up and also unexpected items. I would like to take the next step and draft an annual schedule to discuss

together, so we can decide on the priorities. In the end, the Conservation Advisory Council serves the staff and the board.

Karen: I would be curious to see how the board, and this group, judges our success. It might provide some guidance for us.
Fred: When we've gone back and asked the board, it's not been every minute where the council has helped. It's been many bright spots where the staff felt we were out ahead of ourselves and needed some guidance and consensus on how to proceed. A lot of what we bring here are situations where we might be persuaded to change our minds.

Kim: It seems to me like this group is great at problem solving and providing solid input when we are struggling with a particular issue. It gets more challenging when we do our normal processes like planning, budgets and initiatives.

Charlie: How do you know if the group is valuable at all in identifying things that need to go to the board? Staff has been great at catching these things, but if I were on the board, I would want to be sure you were bringing the right things, or not missing something. There may be something that's harder to measure.

Andria: "Reactive to problems" sticks in my mind. It may not be appropriate for us to do that proactively. It's more about reactive program design. We have few chances to talk about things like: "We're planning this new program design. What do you think?"
Kim: I agree, and plan to do some of that during the industrial deep dive at the next meeting.

Scott I: We do seem to spend a lot of time on reports about how we did. Having the expertise around this table is amazing. I definitely bring a different perspective as well. I heard yesterday in a trade ally technical forum group about potential changes in window incentives, and we may look at U-Value requirements mid-year. That type of thing is bigger to the industry, more than staff might realize. Bringing that to the Conservation Advisory Council before you are going to make the changes is helpful. The tankless water heater discussions happened when I first started, and that kind of thing is helpful.

Don: You guys are running things, and the best and brightest are doing it. We have to think about the hats we need to put on, and who should decide upon it. We do rely on your judgment to bring them up when you think more big brains should be focused on them.

Kim: The Conservation Advisory Council has traditionally had far more residential trade allies involved in it. Program changes and questions from residential programs show up far more often, and with good reason.

Andria: Are trade allies allowed to be on the Conservation Advisory Council?
Kim: The charter doesn't exclude them, but there hasn't been a lot of outreach to individual end users or trade allies to participate. Peter has focused more on bringing representatives of groups or organizations onto the Conservation Advisory Council. Maybe the question of who's at the table would bubble up as we talk more about specific items we bring to the council.
Andria: I agree with that approach.

Fred: We've evolved toward having more trade ally engagement outside of the Conservation Advisory Council, trying to help the messages bubble up so we can get more information that way, and decide what belongs at the council.

Kim: Trade allies and market actors primarily engage through other groups. When they come to CAC they are trying to make a statement to all of you about the specific topic. It goes into the minutes and gets to the board. This isn't where we are trying to work these things out; we already have. They mainly want to be heard.

Karen: When you do the agenda with public involvement, how do you handle it?
Kim: If we have hot topics, I set time limits for comment. We constrain it so it doesn't turn into a free-for-all, but they get to air their opinions.

Karen: Do you regularly include a comment about what you are trying to get out of each agenda item?
Kim: We haven't, but that doesn't mean we wouldn't. That said, we're not looking to massively expand the effort of the Conservation Advisory Council, while still getting the best outcomes.

Karen: If you're clear about what you're looking for, it's helpful to us.

Don: That's sort of the Regional Technical Forum lexicon, where we're clear on what types of outcomes should be coming from each item.

Kim: We don't actually vote. We look for recommendations and feedback; your best thinking in the moment. Not everyone here will have input on every topic.

Jeff: If you're looking for our best thinking, using today's agenda as an example, the only ones that encourage best thinking and engagement are the ones that call for it. The agenda balance, with too many informational items, doesn't encourage best thinking.

Kim: We are at a point in our cycle of the year where most things are informational. However, we are in this process of looking at what should be brought to the Conservation Advisory Council. One of the main feedback items from our last meeting was that the council provides information and is a primary way for all of you to hear what we are doing.

Charlie: There haven't been many items for recommendations, lately.
Fred: We'll have more needs for recommendations. The lull is only temporary.

Joe: I would like to know how the Conservation Advisory Council gets to see what happens at the trade ally roundtables.

Scott I: There is also a trade ally advisory group to look at technical and trade ally issues, and it may offer some helpful information and notes.

Charlie: You know which issues are important to trade allies, and get plenty of trade ally input, when you see a full room and people lined up out the door.

Tom Beverly: We post presentations and notes from the trade ally roundtables on the website. The notes are not as extensive as the Conservation Advisory Council notes, but we include main points and the presentations show what we covered in the meetings.

Mark: As a final note, I don't agree that these are operating principles, maybe more procedural documentation instead. We can take that up with the board, though.

Kim: I will develop a redlined version of the principles based on this input, and bring it to the next meeting. Thank you for all your feedback.

7. Meeting adjournment

Kim thanked all council members for their participation and adjourned the meeting at 4:45 p.m. The next full council meeting is May 1, 2013.