CONSERVATION ADVISORY COUNCIL
Notes from meeting on April 18, 2012

Attending from the Council:
Jim Abrahamson, Cascade Natural Gas
Brent Barclay, Bonneville Power Administration
Jeff Bissonnette, Citizens' Utility Board of Oregon
Bruce Dobbs, Building Owners and Managers Association
Scott Inman, Oregon Remodelers Association
Juliet Johnson, Oregon Public Utility Commission
Don MacOdrum, Home Performance Guild
Holly Meyer, NW Natural
Stan Price, Northwest Energy Efficiency Council
Anne Snyder-Grassman, Portland General Electric

Attending from Energy Trust:
Adam Bartini
Matt Braman
Amber Cole
Kim Crossman
Diane Ferington
Sue Fletcher
Heidi Goetz
Susan Jamison
Marshall Johnson
Susan Jowaiszas
Oliver Kesting
Steve Lacey
Spencer Moersfelder
Elaine Prause
Andrew Shepard
Peter West
Eric Wilson
Aaron Zahler

Others attending:
Jeremy Anderson, WISE
Christina Cabrales, CSG
Dan Cote, NEEC
Scott Davidson, NEEA
Carollyn Farrar, NW Natural
Clark Fisher, NEXANT
Jana Gastellum, OEC
Theresa Gibney, ODOE
Kari Greer, Pacific Power
David Hiscar, EAI
Rob Hall
Bobby Kosh, CSG
Marlowe Kulley, City of Portland
Casey Maharg, CSG
Tim Miller, CEWO
Sean Penrith, EA
Nicolette Reibold, CEWO
Dave Robison
Anna Ruder, Fluid
Jason Salmi Klotz, NEEA
Derek Smith, CEWO
Niki Terzieff, NEEC
Jim Thayer, Ecova
Murali Varahasamy, Lockheed Martin
Kendall Youngblood, PECI
Brian Zoeller, BPA

1. Welcome and introductions
Peter convened the meeting at 1:30 p.m., asked for a round of introductions and reviewed the agenda. The agenda, notes and presentation materials are available on Energy Trust's website by clicking here.

2. New incentive changes for Existing Homes, Oregon
Marshall Johnson, Residential Sector manager, introduced himself and discussed the new incentive changes going into effect May 1, 2012.

Those changes include direct-vent gas fireplaces, heat pumps and outdoor spa covers. The requirement change for the intermittent pilot ignition is required in both tiers. Tier 1 is a $200

incentive for 65-69% FE, an increase from $100, and $250 for 70+%, an increase from $150. The majority of units that came through the program have included the intermittent pilot ignition.

The requirement change for heat pumps is that the incentive is now only available for units with a 9.0 HSPF across all sizes. The program is moving forward with two tiers. Tier 1 is a $250 incentive if upgrading a heat pump or replacing non-electric heat. Tier 2 is a $450 incentive if upgrading from an electric furnace, baseboard, wall heater or ceiling heat.

The outdoor spa cover is a new incentive offering. Energy Trust was presented with an opportunity to evaluate the new measure, and engineers determined there are cost-effective savings. To receive the $100 incentive, the requirement is to continually insulate the outdoor spa, or hot tub, to R-12 at all points of contact, and must include an insulated hinge at the folding seam.

Jim Abrahamson: Didn't we just work on a fireplace bill insert for Cascade Natural Gas? I'm thinking about this because the question came up about intermittent pilot. What happens if the electricity goes out? Is the bill insert going to cause an issue if Cascade Natural Gas customers respond?
Marshall: We honor the incentives for a period beyond from the time the change takes place. There is a grace period. We will accommodate the transition. We will honor that on behalf of the customer.
Jim: Did we list what the incentive was on the bill insert?
Susan Jamison: They will see the same amount, which comes out to $250. In the end, it's communicated in a way that will feel similar.
Marshall: We are reaching out to all the retailers and providing updates and collateral.

Juliet Johnson: Can you summarize the change in the heat pump incentive?
Marshall: Under Tier 1, there was a $250 incentive for any unit of 9.0 HSPF. We had a $200 incentive for 8.8 HSPF for five tons or larger. Tier 2 was a $400 incentive for 8.8 HSPF. A few years have passed since we introduced the measure and the market has responded at a five ton or larger level. Tiers correspond with how we claim savings.

Marshall summarized the pending changes. Staff has discussed the challenges of sealing air leaks, and has been working with the Regional Technical Forum and ventilation standards. Staff has an interest in changing the way air sealing and attic insulation measures are implemented. There are technical details related to these incentive changes. Staff is discussing the details with trade allies and technical representatives in the industry, and is looking to develop an agreement with the industry on the best way to move forward. There will likely be some changes to these measures. May 1 and January 1 are the incentive change times, and staff envisions this change will take place outside of the typical cycle.

Jim: The note on your slide says the council will be notified prior to implementation. The way it sounds is that the details are being discussed with technical groups. Will there be a touch base with the council before this is implemented? Will there be two opportunities to talk about this at the council? Will the utilities provide feedback? Will there be a final council meeting to discuss before the implementation?
Marshall: There will be a proposal placed before the council.

Jim: I remember seeing changes on air sealing last year. Seeing information in advance of the council meeting will help. The more in advance, the better.

Peter West: We are not addressing the expiration of the incentive for gas tankless water heaters. Today is intended to identify new changes, not the ones we already planned. We are ending the tankless incentive because it cannot pass the societal test. At one point there was a thought the Oregon Public Utility Commission would re-address the test in a proposed docket on fuel switching. The current docket on fuel switching does not address the societal test. We remain with the same requirements under Oregon regulation. Tankless water heaters do not pass the societal test. Further, the payback for tankless is longer than the measure life. Last fall we proposed to end it and transition, pending any other further OPUC engagement. We did ask for a waiver from the OPUC and we proceeded with the transition without a firm waiver from the commission. We never received a waiver from the test. NW Natural asked for time to address this and that is what Holly is here to discuss.

Holly Meyer: We know Energy Trust does not like to flip-flop incentives. The presentation was to say there are unknowns still out there, like the fuel switching docket. Until that docket is underway, it didn't make sense to end a measure that was cost-effective in the utility test. It was twice as cost effective as the tank water heater in this test. It was premature to end this. We asked that we not take action yet, and the council agreed to that. It made sense to wait. Energy Trust added an end date on that. There was a misunderstanding as a transition period. We understand you are changing it once the investigation is done, and we decide if it's gas and comparing it to tankless. We are not arguing with the change and we will wait for the docket, and will wait to see if it will be reinstated.

Juliet: There have been a number of different things around societal cost test. It's looking at cost effectiveness in a different way. The direction I received is that there is an order that came out, UM551, and at certain times, non cost-effective measures can be approved under certain conditions. We are open to considering non cost-effective measures if they are presented to us to improve certain things. There were five or six criteria points in reviewing measures. We can take a review to the commissioners at public meeting settings, and the decision will be made on that measure. It doesn't look like we will be switching from societal to a utility test. There was an email from Energy Trust saying what was discussed and asking for a suspension of the societal test. I didn't get a chance to address that, and now that we have a formal procedure laid out, NW Natural could look at the criteria and see if tankless fits into those criteria. I don't know that it does.

Holly: This is good to know. Would it be okay for a utility to make that case? I have a feeling Energy Trust doesn't want this measure.

Juliet: The process should be informed by the council and it should come through Energy Trust.
Peter: Several sets of studies we showed all concluded that tankless measures failed the test significantly and that in only the rarest of cases could it get near a 1.0. Other utilities have found the same circumstances.

Holly: I hope people are clear on the different cost-effectiveness tests. The societal test is what is failing and that is the cost incurred by the customer. The cost that the ratepayer is paying for is very cost effective.

Juliet: That is the policy of the state and it would be a big deal to change that.

Scott: Do the exceptions allow for a customer who might want to take action?

Juliet: There are a set of specific criteria.

Peter: We used this procedure for market transformation and where we can credibly quantify additional, external benefits.

Theresa Gibney: I know that as a consumer and someone who has worked to advance energy efficiency in communities, people assume there is a return on investment for things we advance. We've had the societal test and utility test. I'm not arguing against separating those, but there would be a burden of communication. It would be a big marketing burden to explain to the market that the return on investment might not be there.

Peter: Many people share your view. The societal test has served that function at times and people see Energy Trust as a label of cost effectiveness. With just the utility test you would need something else in the communication to the customer so they could at least calculate the value to them in their setting.

Theresa: We do that in other forums, in renewable energy for example. It has been consistently communicated that way for a long time. We would not want to be involved in consumer fraud, inadvertently. You have to proactively communicate.

Peter: Another burden of that is in identifying cost. There is range of energy retrofits. The data itself is difficult to summarize in a meaningful way.

3. Industry and Agriculture 2011 trends: Measures, markets and sources of savings

Kim Crossman, Industry & Agriculture Sector lead, briefed what the presentation will cover. Kim mentioned she thinks most people in the room know the Production Efficiency program, but we have enough new employees to start at the beginning.

Production Efficiency is managed in-house by an Industry and Agriculture staff of seven. It is a big team working on all of the things that are done in other sectors, plus all the Program Management Contractor responsibilities, which we do in-house. There are six Program Delivery Contractors in the field. Four are part of custom track delivery, and two are involved in trade ally coordination, Evergreen Consulting for industrial lighting and Cascade Engineering for small industrial. Custom track is delivered by Cascade, Nexant, RHT and the PGE CTS group. We also have another group of contractors who support us called allied technical assistance contractors who do technical studies. They tend to be system experts, and are engineers and consultants hired to perform technical studies and savings verification. Industrial technical service providers are consultants who provide Strategic Energy Management services or other direct technical services. Overall, the industrial team is made up of highly technical people.

Kim showed a slide of the electric sources of savings in 2011. She said custom capital is still the largest amount of savings and probably always will be. Custom operations and maintenance and Strategic Energy Management savings have grown. Overall, the sources of savings looks balanced.

In 2008, the program had almost all of its savings from custom capital projects. There was a dip during the recession that was very clear, and last year there was an uptick, which was very exciting. The recession's effects on industry appear to be over. On lighting, the program has consistently grown in volume, as indicated by the project count. There were a lot of smaller projects, and a lot was driven through operations and maintenance. Strategic Energy Management is one of the newer sources of savings and those are bouncing around. With operations and maintenance, staff noticed an uptick and then down again. Staff thinks the uptick in capital in 2011 is being driven by operations and maintenance and Strategic Energy Management efforts in prior years. Kim said it is surprising that operations and maintenance

bounced down after last year, but the program just started this work three years ago so trends are not very clear yet.

Kim reviewed the entire program history, and said 2004 was the first year the program showed savings, and there were big spikes of savings in 2005 and 2007 due to mega-projects. What is exciting is that between 2008 and 2011, there were no mega projects, but the growth is more of a diversified portfolio, with more customers served and different sizes of projects. This should prevent some of the lumpiness in savings outcomes from year to year and result in more steady growth.

Kim said the program has only been doing natural gas projects for a few years. The big news for last year is the growth in savings from custom capital in Cascade Natural Gas territory and in NW Natural Industrial DSM. The program also gets half of its gas savings from Small Industrial customers, especially agriculture, who are paying the public purpose charge. Nurseries have been the single biggest source for gas savings over the past year.

Kim said the first gas savings were from Strategic Energy Management last year. Capturing this savings did not involve any extra work. The customers are taking the tools they are learning through electric measures and applying to gas savings. The program is happy customers were eligible and the program could analyze and claim the savings this time. This also indicates the program is driving a lot of gas savings for customers where Energy Trust cannot claim savings.

Juliet: Can you talk about large industrial and gas? Why can't you claim the savings?
Kim: Cascade Natural Gas and NW Natural have transport customers who don't pay to fund efficiency programs, and we aren't allowed to work with them. They buy gas from a third party, but it is delivered through the utilities' pipes. In Oregon, we apply funding for efficiency on the commodity. In California, the public purpose charges are on the pipe and all gas customers participate in the efficiency programs. I read somewhere that 50 percent of gas used in the state is going to large transport gas customers. Because of these restrictions, we are trying to find the customers who are eligible, which are the non-transport customers. Both small industrial and capital projects are ramping up quickly, which is what we expect with a fairly new program. We will hopefully stay in this place for the next few years.

Bruce Dobbs: Is Strategic Energy Management different from demand side management?
Kim: Very different. Strategic Energy Management is an approach that helps companies treat energy as a variable cost, rather than a fixed cost. It involves using tools common in LEAN manufacturing and reporting. It hangs on a model of continuous improvement. The history is that the Northwest Energy Efficiency Alliance began working on this five years ago and found that this is what culture change in an industrial setting looks like. For large complex customers, it is behavior change, lots of training, technical support and tools to help set goals and continue to reset and proceed. The savings typically come from low- and no-cost actions.

Kim gave an example: There were three guys working on the night shift at a pressboard plant. By using energy information to track their performance, they figured out that this tiny shift was using almost as much energy as the day shift crew. They decided that the energy costs to run such a small part of the process on 3rd shift were not worth it. The three night-shift employees now work with the daytime crew, and they can shut down the plant at night, saving a ton of energy.

Kim discussed the volume of projects: Most of the savings are coming from custom track projects. The vast numbers of projects are all Small Industrial and lighting. The volume is up. If we look at 2008, there were less than 500 projects, and now we are closer to 1,000. Volume is

consistently going up. We used to be low volume, and now it's not so low volume. This is a very steady ramp up in terms of volume, tied to the Small Industrial Initiative. The Fall Bonus was designed to say you have to complete everything by December 15, 2011, which drove everything to push hard in December. We learned it's probably not good to have projects close on December 15. Projects require a detailed review, and it's a busy time of year.

Kim mentioned it would be good from a design perspective to spread the bonus across the year. There is a Spring Bonus and it's based on purchasing within 90 days, and is not tied to a specific completion date.

Scott Davidson: Any correlation between these spikes and end of fiscal year?
Kim: Yes there is some. Human behavior, year-end reviews and tax advantages come into play. My theory is that PDC contract goals contribute since we operate on an annual calendar. In the end, people make it happen.
Peter: There are seasonal effects. Certain places won't close down during certain months.
Kim: With gas projects, we are still at low volume, less than 100 projects total, but it's doubling. The savings are ramping significantly. In Cascade Natural Gas, they are low volume but high savings.

Kim continued on to talk about measures. The program mostly does custom measures, and a lot of measures will stay custom. The program saw a large amount of savings from lighting in 2011.

Any system in an industrial plant could have any number of things done to it in order to generate savings. Lighting projects can be quick to implement so this measure was the most affected by the bonus and the program had the most action in that area. Strategic Energy Management is a huge source of savings for the program but it's not really a measure; it is a special strategy to get at savings across technology. Compressed air systems are one of the most commonly found in industry. It is a strong source of savings for the program. Because of the diversity of equipment and applications in industrial settings, trends related to measures and system types don't tell the program a lot, but looking at the data is helpful for long-term planning such as resource potential. The program does have trends year over year across systems, but except for the sudden emergence of Strategic Energy Management, this data is not that meaningful.

Looking at savings by subsector is not that meaningful either. The program finds that the leaders in each sector are more like leaders in other sectors. So, the program looks across sectors, clustering customers based on their cultural attitude and practices more than their subsector. Wood products is still the program's biggest sector. Computers and electronics was the biggest unrealized potential three years ago, and staff increased its penetration in that sector. It is a significant source of savings now. There are many different types of industry which is why a custom approach really works for Energy Trust. For gas, greenhouses are bringing in the biggest energy savings. They have a great association and are easy to access. Food processors act similarly. The program has a lot of work on diversification on the gas side, but has just gotten started.

Scott: Are these existing facilities or are they new?
Kim: There have been a few new, and when those projects come in, we work with the New Buildings program.

Scott: When will Intel show up in the savings charts?

Kim: We are doing a mega project with Intel. It is mostly process and secondary systems. We've been working closely with them for almost two years. We're hoping for the first bundle of savings to show up in 2012.

Scott: How do you capture savings?
Kim: We capture savings in design. We rethink what the requirements are. It is incremental in some cases. You could get this, but instead you should get this. It has to do with how things are configured and controlled. One of the nice things for us is that Intel is their test site, so they will try new things.

Scott: It appears like there is a market incentive to achieve energy savings. Why do we intervene?
Kim: When it comes time to do construction, the builders look to value engineering. How can they control and manage construction costs? Intel had a list of efficiency items they wanted to add on and we help to make sure they are part of the final design. Until the equipment is purchased, those projects are still at risk. There is great lost opportunity in new construction.

Stan Price: This is a great report. You organize yourself differently, which is unique. Is some of the success from thinking market based and strategic based rather than measure based? I wonder if you feel less encumbered and that there are lessons to be learned for other sectors.
Kim: I can give you an operational example of how our custom program design helps us. We get calls from vendors who want to pitch us products that save energy. They are expecting a long measure approval process, just like Residential and Planning. I can tell them that I don't have to meet with them in order for them to participate. I tell them that if they have a willing customer and specs and information that enable us to perform a custom study to quantify savings, we can move forward. It helps us to go to market more quickly, and to be able to tell customers that we can work with them in a myriad of ways. The custom message is simple. This gives us a lot of room and we try and analyze and work with new opportunities. If and when emerging technologies come to our sector, we can handle it nimbly through the custom approach.

Bret: Thinking about gas, can you talk about when the electric utility is not in Energy Trust's service territory?
Kim: We tried to get some eligible gas customers in Eugene. We invited local folks and didn't get a huge turnout. There is a tremendous opportunity here to collaborate and it's unexplored. Is it collateral to leave behind? Is it that easy? Most of the gas projects in the Industrial Sector are not combined gas and electric. Unlike commercial HVAC, most gas measures are stand alone. I still feel like Consumer Owned Utilities will be interested in knowing what gas incentives are available in their territory.

4. Energy Performance Score for Existing Homes

Peter: When last we left the topic of Energy Performance Scores for existing homes, we said we would come back with a proposed path forward to address the fuel bias issue and still possibly launch an EPS this year. We believe we have the compromise solution and a path to proceed for a launch by the end of June or early July this year. Further, we were asked to better define what would be our goal if we move forward and how would we phase this, and to estimate costs to move forward.

Matt Braman, senior residential program manager**,** welcomed and thanked the group for being here. He said the feedback was vital for developing the proposal. Staff is working through fuel neutrality issues and determining what Energy Trust's role is.

Matt: The requirements staff heard were that we did not want to start over, and we wanted to work with the metric that we had. The market is ready for something, and this has to be fuel neutral, and the scores should not be influencing fuel choice. We wanted to limit the impact on program budgets. The issue is an absolute miles per gallon rating is problematic. Site-based MM BTU scores cannot be a comparative measure of operating costs across fuels. It confuses the “save energy, save money” message. Heat pumps get relatively lower scores but cost more to operate compared to a gas furnace. There is a lack of fuel neutral EPS for existing homes.

Matt: This example shows the fuel neutrality issue and is where we have to dive into the math a bit. Historically, an EPS has been calculated by modeling the home’s site-based energy usage under average operating conditions and then converting the kWh and therms, if applicable, to MM BTUs. The total MM BTU represents the score. Table 1 shows the calculation for a typical gas furnace home and Table 2 shows the calculation for the same home with a heat pump instead of a gas furnace. The difference in scores for the two fuel scores is significant. Because of this bias, Energy Trust staff recommends modifying the pure BTU score, creating an “adjusted” BTU metric.

Table 1: Gas Furnace Home	Usage	MM BTU Multiplier	MM BTUs
SPHT (Therms)	464	0.1	46
DHW (Therms)	194	0.1	19
Other (kWh)	5,996	.003412	20
Energy Performance Score			**86**

Table 2: Heat Pump Home	Usage	MM BTU Multiplier	MM BTUs
SPHT Electric	6,694	.003412	23
DHW Electric	3,380	.003412	12
Other Electric	6,074	.003412	20
Energy Performance Score			**55**

Matt: The following section describes a simple way to adjust the score in order to normalize for fuel source on average for typical heating systems. While a certain amount of immersion in the details is required to convey and consider the solution we are proposing, we want to underscore two points:

1. Simple for modeling tools and does not change the way we communicate to customers. This maintains the original intent of EPS as a MPG type of rating.
2. Zero is good and newer and smaller homes.

Matt: Fuel weights can be applied in the calculation of the EPS as an added adjustment to normalize scores for fuel source. The factor would be applied to heat pumps and electric water heating loads. Most homes are gas coming through our program. Energy Trust is proposing that the weights represent a comparison between the new systems we see in projects coming into our programs, when a customer is considering a purchase. There is acknowledgement that the

scores would be equal on average for typical heating systems. The next step will be to work with utilities to agree upon fuel weights. We will have to periodically review.

Table 4: Fuel Weights

Fuel Weights	
Space Heat	217%
Water Heat	141%

Assumptions	
Space Heating Efficiencies:	
Heat Pump	200%
Gas Furnace	92%
Water Heating Efficiencies:	
Electric	92%
Gas	65%

Scott: How does this affect the existing condition?
Matt: Table 5 is a heat pump home with fuel weights. Some numbers were slightly off. I want to illustrate how the weights work. It's important to note that the weights are applied at the end, after all the modeling has been done. This does not change the way a contractor models a home.

Table 5: Heat Pump Home with Fuel Weights

	Usage	MM BTU Multiplier	Fuel Weight	Adj. MM BTUs
SPHT Electric	6,694	.003412	217%	46
DHW Electric	3,380	.003412	141%	19
Other Electric	6,074	.003412		20
Energy Performance Score				**86**

Peter: Let's talk about technical questions. This mathematical concept is the key to the compromise.

Juliet: What about electric baseboard heat?
Matt: Those will not look that good with the score. That is the message we want to send.

Holly: If you don't apply the 217 factor, you could end up with an electric baseboard house that looks better.

Matt: When you model the home, you will capture the larger load to begin with. It will score poorly compared to other homes.

Holly: There are no factors to the 80% house.

Juliet: The two main comparisons are the heat pump and the high-efficiency furnace.

Peter: The large loads are the heating system and the water heating system.

Holly: It's still not source energy. Because we are not going to source, there would still be some issues. It is three times more efficient to use the gas directly.
Juliet: Two main things you want to compare are the furnace and the heat pump.

Scott: You have the equation that goes in, and it will all be the same percentage adjustment.

Bruce: What penalizes you with baseboard heat? The fuel weight factor doesn't need to change that much.

Matt: If you had an 80% furnace, you would have a higher load you're applying weight to.

Gary, NW Natural: Is the intent to first create the EPS based upon how my house is today?
Matt: Yes, it would be an unofficial score. The test-in would show an EPS with current house conditions, and then an EPS with suggested improvements.

Scott: The inputs are historic usage, fuel type?
Matt: Yes, they include insulation levels, air leakage, windows, appliances and lighting, which is the estimate of the total operating cost of the house.

Peter: Let's talk for a minute for council members. Does this feel correct? Any objections?

None were stated.

Matt: The third issue was recognizing the score, and uncertainty remains on how to drive savings. We are proposing a phased approach designed to quickly introduce an EPS into a segment of the Existing Homes market. It is important to recognize that Phase 1 is not a comprehensive home energy rating system for homes in the entire state of Oregon. Other stakeholders besides Energy Trust need to play a role. We are planning to launch in late Quarter 2 or July, with this being delivered through Home Performance contractors who are trained in modeling and building science. EPS would be part of the comprehensive audit. Someone doing a Home Performance job would have the EPS as a natural bi-product of the outcome.

Matt: We expect Phase 1 to last one year, and expect 500 to 1,000 scores. We will work with CSG and Earth Advantage audit tools. We are proposing a cost structure for contractors to charge $40-$60 for the official EPS. By charging the market for this now, we can exit later on if necessary. We heard from stakeholders that we need to have a clear exit strategy. We will analyze the follow-through rates. If we don't have positive findings from evaluation, then our role will not expand in Phase 2.

Holly: I didn't realize there would be a cost linked with a Home Performance assessment and receiving an EPS. If the customer is paying $500, why would they pay more? Do you provide a Home Performance incentive now?

Matt: Yes, we do provide a portion of the Home Performance audit now to get the savings information. It's $150.
Peter: The idea is this would cover the cost of the quality assurance and quality control in the field. The feedback last time from representatives of the OPUC, utilities and NWEC was that keeping ratepayer cost down was important. We are responding to this and proposing a fee to partially offset costs

Jeremy: On the evaluation side, will you track follow through?
Peter: We haven't nailed down the evaluation process yet.
Matt: We designed our pilot last year and it was an experimental design. We need to stop piloting and evaluating things. We can look at projects that came in and didn't get an EPS, and talk to contractors.

Peter: Other pieces are market acceptance. Do people like this or hate it? Is it useful? Do contractors find it a useful sales tool?

Matt: Energy Trust's role in Phase 1 will be to manage the modeling tool requirements to ensure homeowners are getting appropriate information. There could be a lot of confusion in the market. The quality assurance and quality control will be able to leverage existing efforts. Most of the leg work for the modeling tool is already done. The modeling tool is always evolving and getting upgraded. Most of the work of vetting models is done. We'll work with utilities to develop fuel weights. We will work with the market to ensure proper training is available. It will be important for contractors to be available for trainings. The trade ally business development funds will be available to offset those trainings, probably 50 percent of the cost. That would be the additional requirement for Home Performance contractors to deliver this. After the July launch, we will convene the stakeholder group.

Matt: During Phase 1, we will work with CSG and Earth Advantage models. At this early stage in the development, it is important to support multiple software tools. A variety of modeling tools will allow the free market to decide which tools best meet the needs of homeowners and policy makers, and will make home energy scoring services available to a larger portion of the market. Both of these tools demonstrated the ability to consistently rank homes against a reference. Most of the work vetting these tools is already done. Phase 1 will not be open to other modeling software. Energy Trust does not plan to use ratepayer funds to vet software tools beyond Phase 1. It is possible that Energy Trust might vet software tools for a fee if stakeholders felt that was the best approach. There are conversations at the national level for groups such as the Home Performance Council to fill this role. There are calibration factors. No tool is perfect, and not wanting to decide which single tool is correct proposes a calibration factor to help ensure that scores are consistent across modeling tools.

Matt: At the end of Phase 1, Energy Trust's role and resources will be evaluated. We need positive evaluation findings. Early in Phase 1, Energy Trust will solicit interest from stakeholders to participate in a working group, which will plan for Phase 2. This working group will be convened by Energy Trust throughout Phase 1; however, it is possible that other stakeholders may be better suited to serve this role in Phase 2. It is expected that this later phase will address the expansion of the EPS delivery network beyond Home Performance, and address additional tools and expansion to other service territories, if desired

Scott: How would you expand beyond Home Performance contractors?
Matt: Home inspectors, remodelers and others.

Jim: 40 percent of Cascade Natural Gas customer don't have Home Performance contractors in their area. How can we bring in customers to take advantage of programs like this? I will want to be involved in Phase 2.

Matt: Homeowner surveys will be designed to understand how homeowners value and understand an EPS. We need to understand the perceptions of the marketing materials and contractor's marketing of an EPS. The contractor surveys will bring insights into challenges associated with implementing and marketing the EPS, and how the contractor values the EPS and overall impact on business. The contractor surveys will begin early in Phase 1. Following the conclusion of Phase 1, there will be analysis of follow-through rates for participating and non-participating contractors. We will help determine the impact of an EPS on homeowners' efficiency decisions. This will seek to answer the following: does the EPS impact program follow-through rates and/or the size of the projects? The ability to drive additional projects or larger projects is how an EPS will drive savings, which are necessary for continued Energy Trust support. The most significant direct cost to programs is estimated at $50,000.

Carollyn Farrar: There will be a fee the customer has to pay? Has this been vetted with customers that they would be willing to pay this fee?
Matt: This will be in the market expectance. The contractor will choose how they deal with it. Some may pay for it or make the customer pay.
Sean Penrith: Most often, a consumer is asking for the score, so the contractor will pay for the score in some cases. In other areas of the country, some consumers are paying $95 for a score. You have to pay for it if you want it. You can get other types of indexes that will cost you $500 or more.

Holly: If a customer pays $500 for a Home Performance assessment, I do not understand why they have to pay an extra fee when they just paid $500.
Peter: It's a quality assurance and quality control fee. If they think it's a rip off, we will get that feedback.

Holly: Is there another way to get the money other than charging the customer?
Scott: If I understand this correctly, a Home Performance contractor has costs, and he sets his price. They will evaluate when they go to market. Is this a value to the Home Performance contractor? Does it help him sell? If the contractor sees it as a value, he will raise his price or have the Home Performance assessment include the EPS in the price. Most often the homeowner will get it back if they choose to go forward on some measures. If the customer invests, and one year from now the score is not saving energy, then it's a problem.

Marlowe Kulley: A homeowner probably doesn't care as much about the unofficial score. They want a certified score after they have done the upgrades. Can you provide an uncertified score before, and then the official score after?
Matt: Yes, that's the idea. Contractors can deliver a pre-score.
Holly: Ok, that feels a lot better.

Scott: Now I'm confused. A homeowner will get a pre-score upfront? When a homeowner has moved forward, they will then get another score?
Sean: By offering the unofficial score, the contractor can show you how to get the official score. They can have that score listed. The tool plays a role at different points.
Don: Modeling software says if you do certain measures, you'll get 20 percent energy-efficient upgrades. Instead of saying which percent, the pre-score is where you are, and the official EPS is where you will be.

Scott: They are given a number now, and they will get a different number later? So you would go through the whole home, show them where it lacks, and compare the number of the unofficial and official scores? How will the score become something of value to consumers? How does the first person decide to pay for it? How many people do you need to get market traction? I think it's more than 1,000.
Matt: I think Energy Trust can get this started as a low-cost measure. There are other stakeholders, realtors, etc. that need to play a role. We hear the market saying there is demand for the score, but we don't intend to carry it all the way there.
Peter: We can bring the scientific tool, base understanding and knowledge, and test it out, before anything gets beyond us. It's setting the stage role that has become clear to us. There is a high potential for this.

Scott: This idea is the start, and it's a complicated process and takes a lot of time and money.
Peter: The idea of the stakeholder group is to create shared understanding of what we learn and to set the stage to expand as warranted. This has been done by a number of industry groups in a number of circumstances and they have been successful in advancing a market to the next stage.

Brett: Is this the first experience in the country?
Peter: There has to be at least two dozen different tests of this around the country. We have been more reserved and analytic.

Brett: Who will jump in and carry it forward?
Sean: The proposal is to identify a framework for the region so there is an entity who is shepherding it through. One thing that stopped us is there are pragmatic obstacles. We would like to facilitate regional discussion.

Stan: It would be nice if you could share evaluation criteria you will be using. It would be nice to hear about the long-term market strategy.
Peter: We will shoot for doing that in September.

Juliet: This is good. I encourage you to make sense on early adopters, and provide that there is a cost and make that clear, and maybe give an incentive for doing this at first to encourage consumers to take advantage. Do what makes sense.

Diane: There is currently a $150 incentive for a Home Performance assessment.

5. Public comment
There was no public comment.

Peter said the dashboard presentation will be held for the next council meeting.

6. Meeting adjournment
Peter thanked all council members for their participation and adjourned the meeting at 4:30 p.m. The next full council meeting is May 16, 2012.