

CONSERVATION ADVISORY COUNCIL

Notes from meeting on May 1, 2013

Attending from the Council:

Anne Snyder-Grassman, PGE
Lance Kaufman, OPUC
Don Jones, Jr., Pacific Power
Scott Inman, ORA
Jim Abrahamson, Cascade Natural Gas
Wendy Gerlitz, Northwest Energy Coalition
Warren Cook, Oregon Department of Energy
Stan Price, Northwest Energy Efficiency Council
Karen Horkitz, Northwest Energy Efficiency Alliance

Attending from Energy Trust:

Kim Crossman
Peter West
Tom Beverly
Fred Gordon
Oliver Kesting
Sue Fletcher
Amber Cole

Steven Jonas
Athena Ehnnot
Eric Wilson
Susan Jowaiszas

Others attending:

Ginger Roberts, Home Performance Guild of Oregon
Mark Kendall, Board of Directors
Charlie Grist
Marty Stipe, Oregon Department of Energy
Roger Spring, Evergreen Consulting
Whitney Rideout, Evergreen Consulting
Bob Stull, PECI
Curt Nichols, ICF
Clark Fisher, Energy 350
John Ulman
Josh Weissert, Energy 350
Patrick Lorenz, Rogers Machinery
Andrew Regan, Rogers Machinery
Pam Barrow, Northwest Food Processors' Association

1. Welcome and introductions

Kim Crossman convened the meeting at 1:30 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: We have discussed Conservation Advisory Council operating principles in two previous council meetings and subsequently reviewed a redlined document by email. Today's handouts include clean copies of the revised operating principles as well as the redlined versions. Today I suggest focusing on the numbered section. After we adopt these operating principles, we should reconsider them every one to two years.

Jim Abrahamson: On item number two, sometimes the Conservation Advisory Council meeting agendas are loaded with a long train of issues with too many quick discussions. I would like to see the annual schedule as far in advance as possible, so we can ensure we get to discuss things and offer recommendations. We need to have the flexibility to have a full discussion, or be prepared to move the item to another meeting.

Kim: In just about five minutes we'll discuss what comes to the council, which is related to Jim's question. The more we talked about this in our previous meetings, the more we learned that much of what we bring to the council really does belong here. We can plan for many things in

advance, but some topics are driven by what comes up in our planning and operations. It will require more discipline for agenda development.

Jim: I do understand that some of these topics come out of the blue, and we do need to cover them. We should look at moving items previously considered important off the agenda in favor of important add-ons, or we need to have more meetings.

Kim: I move that we adopt these operating principles.

Kim requested comments from Conservation Advisory Council members.

Wendy Gerlitz: You've done a great, thorough job helping us through the operating principles.

Stan Price: I agree with Wendy.

Don Jones: I'm supportive.

Jim: I'm supportive, but need to be sure we understand that they are not set in stone, and that we may need to revisit the operating principles later on.

Warren Cook: No objections.

Scott Inman: I agree.

Mark Kendall: I appreciate the work, thought and restructuring, and I agree it has been a long time since we looked at these things. The document title is a problem for me, but I can let that go.

Karen Horkitz: It looks good and I appreciate the work you've done. Is there anything you wanted to see as a board member, Mark?

Mark: The board relies on staff and marketplace advice, and this is an advisory group. Things should be recommended to the board, and this group doesn't make very many recommendations. As an advisory group to the board, I think we're missing part of that in the document.

Kim: The group talked a lot about the board and Conservation Advisory Council interaction, but we ended up taking many of these items out of the document, because they were board responsibilities, not Conservation Advisory Council responsibilities. The board should be able to get the right information from Conservation Advisory Council meeting notes and documents prepared by staff for these meetings.

Don: Item number seven does say that our thinking on topics can take the form of a recommendation.

Kim: I know we have people standing in for the OPUC and Home Performance Contractors Guild. I did speak with Juliet from the OPUC and Don from the guild on the phone, and they said they supported the revised document.

Anne Snyder-Grassman: PGE supports it.

Jim: I attend most board meetings also. Many times, when considering decisions related to energy efficiency, board members ask if the Conservation Advisory Council has looked at the information, or commented on it.

Kim: In the charter, it says we are an advisory group to the board and staff. Many things we discuss here in detail never come to the board at that level of detail. We're focused on

measures, markets and other issues where staff makes the determinations. You are all critical advisors to staff and board members.

All feedback was collected from the council and the council adopted the revised operating principles.

Peter West: I think it was time for this refresh, and I am pleased that you went through it. The board packets always have the Conservation Advisory Council meeting notes, so board members can see all perspectives.

Mark: The difference is that we have these cliff notes at the board level, but I've never really seen a recommendation from the Conservation Advisory Council at the board meetings.

Kim: The second item I wanted to cover is a look at the topics we cover in Conservation Advisory Council meetings. I entered agenda items we've covered over the last three years into a spreadsheet, and categorized them by sector, time and nature of the item. I considered rating them based on how controversial they were, although that thought process did not make it into the list. I was surprised at the diversity of topics we've covered over the last three years. Every possible topic you could dream up about energy efficiency. It shows we are tackling what we should.

We asked which types of topics come up most often. There are three basic categories of topics: information, discussion and recommendation. More than one-half of all topics were listed on the agendas as information topics. At closer inspection, at least one-half of those more appropriately would be categorized as discussion topics. Going forward, I want to look at whether the council would be likely to discuss an agenda item, or receive the topic as information, without discussion.

We also found that in the last three years only three out of 102 items were categorized as recommendations. In each case, the topics were tied to a board-level policy change, and power generation or renewable energy was involved. Renewable energy topics get heard at the board level more extensively than energy efficiency topics. The review of how we characterize agenda items shows that "recommendations" are formal Conservation Advisory Council input that directly informs board policy decisions, and that these are very rare agenda topics.

The vast majority of your guidance is reflected in the program strategies and innovations, and ultimately in the action plans driving our budgets, rather than in board agenda items. It may not be about formal recommendations. The basic premise is that the Conservation Advisory Council is about advice that addresses some of the subjective program, measure and initiative design decisions that staff face. We get that advice from the council through "discussion" items. Given this, it would be expected that the majority of Conservation Advisory Council agenda items should be "discussion" items going forward. That seems to be the highest and best use of our time, looking back over the last three years.

Categorizing agenda items by sector also pointed to who should be Conservation Advisory Council members, and what type of background or knowledge may be helpful. Only 7 percent of items were industrial, while 37 percent were commercial and 43 percent were residential.

I sent this spreadsheet in an email for you to review.

At the next council meeting, I would like to set aside 20 minutes to look at this, and talk about what topics should come to the Conservation Advisory Council. The priority and types of topics are all over the board. Please look at the spreadsheet before the next meeting.

Jim: Make sure we don't trip over the term recommendation. Items clearly identified are policies and things the board deals with directly. We most often are polled about program and incentive changes, following staff presentations and discussions. Subsequently these items are packaged and given to the board. Maybe we need to change nomenclature.

Peter: Amber and the communications team break out every substantive comment and response when it comes to the budget and action plan. Separately, you see more Renewable Energy Advisory Council items for the board because they make decisions for everything greater than \$500,000 in incentives; and that's many renewable energy projects these days.

Don: Mark, would you like to receive recommendations more frequently? Do the notes work as they are or is something more needed?

Mark: To the extent that items create dissent here, or require a board decision, I get the Conservation Advisory Council minutes, which show a dialog, context and examples, and then I ask staff to interpret them. The notes are thorough, but by reading them, I don't see where the Conservation Advisory Council ended up. Staff has to interpret it for us.

Stan: I hear what you're saying, Mark. When I look at the principles, it's a good thing that we don't force the Conservation Advisory Council to work toward consensus. If those were the rules, we would spend a lot more time here, and not requiring consensus means the board is getting a variety of recommendations. We have many strongly held opinions here. Short of a strong, split vote, it's difficult to recommend anything by consensus.

Kim: I think with both the Renewable Energy Advisory Council and Conservation Advisory Council we aren't looking for consensus, but are looking for discussion and views. We used to have majority and minority opinions spelled out in the notes, and these views continue being portrayed in the notes but without the labels.

Fred Gordon: The board is interested in two or three views if there are different perspectives, rather than consensus.

Peter: The board appreciates the fact that we don't interpret for the Conservation Advisory Council as a group; we report on discussions. That's been the history, and I also appreciate this approach.

Fred: Board members seek a dialectic view of what's coming out of this group, not necessarily advice.

Kim: While the Conservation Advisory Council doesn't technically make many "recommendations," and I'm being very specific here about the term, we shouldn't forget that you do make them informally in many ways.

Kim: Thank you. Jim and Don both say the same thing about prioritizing topics. All our time historically was spent across all of these categories, so let me know what you think, and get back to me next time. We'll plan for more time to discuss if we need to.

3. First quarter results

Peter: Each quarter, we distribute results data as soon as possible after the quarter closes. Prior to presenting, we need to ensure the data is quality checked, analyzed and reviewed. For some quarters, such as this one, we cannot do this and get the data to you a week prior to the Conservation Advisory Council meeting. These meetings aren't always aligned with the quarter close. Rather than delaying the information until the following month, we'd rather give it to you as soon as we can.

On the results slides, one bar shows our gross savings pipeline for the year. It shows what we've done or know is coming up. The second bar on the charts is our forecast for 2013, adjusting the first bar for known dropout and replacement rates and other trends. The third bar on the chart shows what's in store for 2014.

The first quarter is always very preliminary, as there's not enough information about the year ahead to forecast with certainty. Right now, we're looking for anything that's truly out of alignment. In the second quarter we'll have a better look into the year and the 2014 pipeline.

As of the end of the first quarter, results for PGE and NW Natural are ahead of pace. Results for Pacific Power and Cascade Natural Gas are at pace. So overall we're on target to meet or exceed our goals. Relative to others, Pacific Power has a shorter Existing Buildings pipeline. We'll provide additional outreach resources for the program. The Existing Buildings pipeline for Cascade Natural Gas is a little behind, as well. We've worked with their district offices and will do some joint outreach to improve this.

Of special note is that Production Efficiency and New Buildings both received American Council for an Energy-Efficient Economy awards for exemplary and outstanding programs; this is quite an accomplishment.

We're also trying to make the dashboard handouts more standalone documents. We worked to make the handouts more descriptive and better explain the numbers and bar charts. If the changes are not sufficient, we need to know. I've noticed that some of you don't mind taking on some homework, so please review the handouts to see if you get enough from them.

Kim: We'll make this an agenda item and consider it along with other topics. We historically have spent about 20 to 25 percent of our time with these types of updates. Is it helpful to send these out upfront, have less discussion and more time to read them? Many of you said you are here to gather information you can take back to your organizations. Consider the dashboards in that light. Are you getting what you need from them, and does it offset the need for extended discussion during the meeting?

Fred: While it may be embedded in the details, the definition of "adjusted" seems to have disappeared from the dashboards.

Kim: We are planning to pull the charts into a Word document, and acknowledge that currently they have a lot of text in small fonts. We'll have more readable text next quarter.

Peter: This meeting's materials are also available on the Energy Trust website.

Charlie Grist: Are these printouts just for Energy Trust use?

Kim: Some of these highlights are provided to OPUC and utilities. We constantly respond to requests for information, and we know that an improved version of these handouts may be a way to fulfill requests with less work.

Peter: These dashboards are the start of the OPUC reporting cycle; they are the front end of the quarterly reports. The OPUC reports are the key, official reports of the organization.

Kim: We're out of time, but will come back to this.

Jim: I appreciate the material that's in the section about special considerations by program. It helps me understand things. Having more information in the special considerations list helps.

Charlie: Maybe develop a glossary of acronyms, also.

4. Industry and agriculture sector savings trends

Kim: Steven Jonas will present information about our Industry and Agriculture savings trends for the past few years.

Steven Jonas: I'll cover past information and Kim will cover future plans.

On the slides, PE represents the Production Efficiency team, which develops and manages the program in-house. I'm a member of that group. Unlike the residential and commercial sectors, we don't have a Program Management Contractor, PMC. So in addition to design and development, we provide project management, data entry and data quality control.

Program Delivery Contractors, PDCs, help deliver the program and are contact points to the market both for contractors and customers. They are assigned their own territories and goals.

Allied Technical Assistance Contractors, ATACs, are engineering consultants. If a PDC goes into a plant and identifies an opportunity, we have an ATAC do a study to quantify the savings.

Industrial Technical Service Providers, ITSPs, provide Strategic Energy Management and direct technical assistance.

Savings sources as shown on the slides have some nuances. We base them on working savings, which is their value before we apply transmission and distribution losses and evaluation factors. The slides show the numbers that ATACs came up with in their studies. Evaluation factors change from year to year, so using working savings is a way to normalize the data, helps us see trends and helps with program design.

The chart shows 2012 Production Efficiency savings by source. The savings are differentiated by type of project and delivery track used to obtain them. The two big categories are custom projects and streamlined projects. Everything here belongs in one of those two categories. Custom projects involve custom analysis and savings verification. ATACs study the savings potential of a project. Custom projects, megaprojects, custom operations and maintenance, O&M, and Strategic Energy Management, SEM, all fall within the custom category. The streamlined category includes lighting and small industrial. These projects are associated with predetermined savings.

Custom O&M and custom capital projects are developed similarly. PDCs identify the opportunities and ATACs quantify the savings. Capital projects involve actual capital investment, while O&M projects involve behavioral changes. SEM involves training operations people in best practices. Megaprojects are very large, unique projects with custom studies and large incentives. The one from 2012 is being completed in multiple phases, and only the first phase is reflected on the slides.

Lighting and small industrial are more about the type of project than the size of the facility. They are trade ally driven.

The next slide shows 2012 electrical savings sources within the context of previous years. You can see the massive impact a megaproject can have. If you apply evaluation factors, the spikes aren't as dramatic; this shows the downside of using working numbers. If you take the megaprojects out, the savings are consistent from 2004 to 2009. The big jump in 2010 was due to a portfolio change to look for new types of projects. Growth was maintained. In 2012, we saw a decrease in lighting, and O&M and capital projects dropped in savings. With diversification, and the megaproject, we nevertheless obtained good savings results.

Custom projects make up 57 percent of the program's gas savings. Streamlined projects brought in the other 43 percent. Many of the largest industrial sites aren't eligible for our program because their gas is purchased from other entities. They are transport customers. So, streamlined projects play a larger role in gas than electric.

We started getting gas savings in 2009. In 2011 we saw the first O&M and SEM savings, and they have continued through 2012. There was a 30 percent overall decrease in gas savings in 2012. The gas pipeline is composed of fewer projects, and when dealing with long-term custom projects, it only takes a small number of really big projects shifting their completion dates to change our results for a given time period. We had a few of them shift into 2013. O&M was the exception within this overall decrease; O&M savings doubled.

Charlie: The change in 2010-2011 lighting was about double the previous one. Why was that?

Eric Wilson: We offered a big bonus in 2011, which brought in quite a few projects. From 2009 to 2010 we focused on industrial lighting. Some of the 2011 projects were pulled in from 2012 by a fall bonus incentive.

Kim: When the Production Efficiency program came in-house, lighting and industrial had previously been part of our commercial programs. We started looking for lighting in industrial facilities, so we got more of it. Most industrial facilities are behind on their lighting retrofits; it's not part of their primary processes. Commercial facilities had already gone a long way with lighting, but there are still a lot of opportunities in industrial.

Roger Spring: You also increased the goal that year.

Kim: Yes, and increased funding for it, also.

Charlie: What kinds of measures are in small industrial gas?

Steven: We'll get some insight into that shortly.

Between 2007 and 2011 we had a very big ramp. Adding streamlined projects into the program really increased the overall total, and that started in 2007.

You can clearly see the small industrial ramp in the 2008 line chart. Lighting was steady, whereas custom capital projects stayed in the same range. In 2012, there was a 20 percent increase in small industrial. There was an increase in irrigation projects, and that pulled in electric and gas savings. Lighting decreased 5 percent from 2011 to 2012. It's interesting because the average amount of lighting savings per project decreased by 31 percent. Custom capital has stayed in the same range since 2008, but there was a drop from 2011 to 2012. Savings per project went up in custom capital. Project volume was down 30 percent, but savings only dropped by 12 percent.

Mark: So far fewer projects accounted for more savings.

Steven: Yes.

The slide shows our top 10 system types. Multisystem projects were at the top, with 33 million kWh. These are projects that include more than one system. They are most often Strategic Energy Management engagements and tuning operations with low- and no-cost operational changes. They represent a holistic approach. You wouldn't have seen this a few years back, and it shows the success of Strategic Energy Management. Industrial lighting accounted for 20 percent of savings in 2012, and 25 percent of Production Efficiency savings since we began offering lighting incentives.

To better understand the slide, here are some definitions. Primary processes are things on an industrial production line that don't fit in other categories. Secondary processes are related to the production line but not on the line; air abatement and dust collection, for example. That shows the great diversity of equipment we touch.

Kim: I want to point out that our primary opportunities are multisystem, primary processes and secondary processes. These aren't widgets or something that companies normally call specialties. That's why we don't have a lot of trade allies or energy service companies involved in the program. They aren't classic efficiency measure projects; they are more system focused, and they take special skills.

Steven: On the gas side, you see a lot of savings from greenhouses and streamlined projects. These are often secondary processes, but also show up as water heaters, tanks, piping and the like.

Fred: Would process heat and cooling be secondary processes?

Eric: That depends on the project.

Mark: It depends if it's a greenhouse or boiler.

Kim: Yes; it would depend. If they cool things for a living, it would be primary. It's tough to categorize. Steven has a constant need to tune up and normalize how we characterize projects.

Steven: We break these out as much as possible, but every time there seems to be something tough to categorize.

Many projects are computers and electronics manufacturing. That's heartening to see, because that industry has great electrical savings potential, but it's been under-realized by the program. We assigned a dedicated PDC to the top 10 high-tech manufacturing sites, and that has helped. The 2012 megaproject was at a high-tech site. Without it, savings from high tech would be at the same level as food products and wood products.

Food products and wood products each accounted for 14 percent of electrical savings. Food products were up 19 percent and wood products had a 23 percent decrease. We can't draw any conclusions from this yet. We would need to see a steady incline or decline over multiple years to see a pattern in order to understand the causes.

Greenhouses are at the top on the gas side, at 23 percent of our 2012 gas savings. We saw a 37 percent decrease for overall gas savings from the previous year. Irrigation saw a 74 percent increase from 2011, and is an area of focus.

Don and Mark: What does gas fuel related to irrigation?

Eric: A good example would be upgrades to a processing building at an irrigation site.

Jim: Maybe it needs to be re-categorized; irrigation doesn't quite fit.

Kim: Yes, and we are doing a massive data project at Energy Trust and will have a chance to insert some consistency. It's tricky because we're trying to report across different sectors. What may work for us may not work everywhere.

Jim: Can we go back to Charlie's measure question at each site?

Kim: With industrial, the system type is a proxy for the measure type. Custom primary process would be the measure category. This ends up being our best way of measuring. Compressed air might be 150 different things, but each site may use it differently. We do 78 percent custom projects.

Jim: I might want a guide or glossary, down the road, to help me translate from resource potential studies into system types you report on.

Fred: You need to get good examples of common secondary process measures. You'll need a glossary. Compressed air has a lot of categories, where lighting is cut and dried. We don't attempt to go into the micro level for industrial resource assessments. We estimate based on project experience for savings, based on this level of detail.

Jim: Secondary is tough because it's not their primary business. I don't know if NW Natural has that same issue.

Kim: NW Natural will typically call us if they have questions about a project.

Jim: We run into trouble when we compare savings against resource assessments at the end of the year.

Charlie: A single year is interesting, but lumpy. Multi-year reports will show you more interesting things. It's helpful if it's easy to do, and it might offer some perspective.

Kim: The process evaluation took a high level look at resource potential versus accomplishments to date. It concluded we'll reach the 20-year potential in 14 years. In 2010 and beyond, we accelerated. The in-house focus of this trends report focuses less on planning and more on where savings are occurring, which markets are moving and what types of systems are being addressed. These statistics help inform what we should do in the future. This is what we need to know to continue being successful. It doesn't tackle the big picture of 20-year resource potential that planning looks at.

Jim: The industrial Integrated Resource Plan, IRP, for Oregon couldn't include a measures list like residential and commercial. There were issues with the Stellar study; some industrial were in commercial and managers were doing a mix and match. There was a substantial increase in technical potential. The OPUC said we seemed to be light on our details about potential. The next time around we need a better understanding to communicate clearly in our IRP.

Kim: I'll note that. Resource potential studies are light on planning details.

Jim: We also need to look at the ramp rate and get a better understanding of how you're doing the technical detail.

Fred: With respect to the resource assessment, more details won't get you better answers. We make it work by being conservative. I will speak with Jim about it more offline.

Mark: Will the impact evaluation have this same level of resource specificity?

Kim: The two evaluations look at the overarching picture of what we saved versus the technical potential. It's at a very macro level by sector. The impact evaluation won't touch on any of this.

Fred: Also, the sample size by process type falls apart statistically.

Lance Kaufman: Is there anything about incentive costs? Can you get a general sense for all industrial?

Kim: We could divvy up incentives by market or type of measure, but because it happens all at once it can't be parsed out very well. In order to build our budget, we actually do our own analysis on cost per first kWh savings by source of savings, and develop assumptions about how much of each savings source will we get. It's not extremely accurate, but we find that as we put more data into it the inaccuracies cancel each other out. Industrial spending has no budget variance this quarter. This is the first we've had it happen. It changes a lot year to year. We need to stay under a benchmark with all the projects being cost effective and the program needing to be cost effective. Savings come from all over, incentives shift and costs shift. Costs for lighting savings went up quite a bit in 2012, but projects were much smaller. Bonuses also made them more expensive than they had been historically.

Lance: How has spending changed from 2004 to present?

Kim: The program design has changed so radically that I don't look at it. Looking from 2007 to present is more important, since that's when we brought the program in house. Much of what we do now we hadn't thought of doing back in the beginning. Many of these sources of savings didn't exist before, but levelized cost hasn't gone up very much for the program.

Scott: Is it more or less expensive for industrial facilities to save energy?

Kim: Really, it's neither. They simply look for good investments and we try to help them find those things. They look for two- to four-year paybacks, and that hasn't changed. If we bring them something expensive, they won't go forward. There's a lot more we could do on cost, but we haven't yet.

Charlie: Are the almost 1,000 projects completed per year a combination of everything? What's the split between electric and gas?

Kim: It's probably one gas to 20 electric. Steven has some of that information.

Charlie: That's a lot of projects. Can that be maintained or accelerated?

Steven: I believe yes. We see typically see more stabilizations than declines. We usually find and exploit an opportunity and it stabilizes, but seldom goes away.

Charlie: Do you get repeat customers?

Kim: Most are repeat customers.

Charlie: So the relationship gets established and you continue to mine the sites over time?

Steven: A way to look at it is whether we've served them before. The number of new sites would be interesting to look at it.

Kim: We see probably 90 percent from repeat customers, anecdotally.

Steven: It wouldn't be that extreme in looking at project counts, but if you look at the amount of savings from repeat customers it would be 90 percent or more.

Kim: I like the idea of looking at first time participants. We're reaching out to the new customers, but by and large that's not where we get our savings.

Mark: It appears the count of smaller streamlined projects is because the increase is in small industrials.

Warren: Reacquisition might be where the savings could come from.

Jim: Businesses will do what makes sense at the time. A decrease in gas prices might make marginal projects that were good to move forward suddenly fall off. Are you looking at new sources?

Kim: We weren't out there doing gas three years ago, and we've still not tapped out the low-hanging fruit.

Jim: It will be interesting to see how many new core industrials are being brought in.

Kim: Some core industrials may be on commercial rates, so that may be confusing. Light manufacturing would show up in commercial, for instance.

Jim: It would be good to know. Core means non-transport to us.

5. Market research on Energy Trust business customers

Susan Jowaiszas presented the results of four research studies completed in the last year and focused on building long-term business customer relationships. She stressed that the presentation focuses on the marketing-oriented findings and encouraged the Conservation Advisory Council members to read the full studies available on Energy Trust's website.

The four studies covered Production Efficiency industrial, Existing Buildings, New Buildings and Existing Multifamily. The methodology for Production Efficiency, New Buildings and Existing Multifamily was deep-dive executive-style interviews with past participants, Energy Trust's main points of contact for projects. The Existing Buildings study had three parts. Two focus groups of customers from locally and regionally owned companies, and another with representatives of companies that are nationally owned. The second portion was a small number, 10-12, executive interviews with the executive sponsors of Energy Trust's primary points of contact. The last portion was an online survey of past participants since 2009.

Part of the initial goal of the studies was to determine if Energy Trust could apply segmentation to business customers to better target marketing. It's something commonly used in residential customer research and staff wanted to see if and how it applied beyond vertical market sectors.

The objectives of the studies were to probe the conventional barriers to energy efficiency adoption: no money, no expertise to implement, no ideas of how to save, no faith in savings, no appropriate payback and no clear decision-making path. Which of these barriers are real, which are perceived and which are able to be overcome?

A summary of key marketing findings from each study:

Production Efficiency: Money talks and payback matters. Customers value the technical assistance provided by Energy Trust. They want and need program help since energy management isn't necessarily an explicit part of their job. They also propose projects only if they are certain they will be approved. While most industrial companies see environmental stewardship as important to their company, it's not a deciding factor in making energy-efficiency investments.

Existing Buildings: One of the most interesting things learned is that decision-makers are 76 percent men over 45 years of age, and a majority of the group is over 55. This points to, and away from, certain marketing strategies, in particular social media. Staff also heard that incentives are extremely attractive and that tight payback criteria, or simple payback, are enforced. Energy projects are perceived to be more complicated than other projects. Another

barrier to investment is that companies are signing shorter leases, putting a squeeze on an already tight payback criteria.

New Buildings: Architects and engineers, Energy Trust's traditional point of entry for the program, also see the program as being complicated. In addition, while they advocate for energy efficiency in their projects, they'll only push owners so far. They won't endanger their client relationship to push efficiency if the owner isn't interested. This points to an opportunity to talk more directly with owners about the value proposition. That said, architects and engineers like to demonstrate the ability to get Energy Trust incentives to owners. Staff heard that new buildings are complicated projects, and the program has started to address the barriers with program offers like Market Solutions. People who develop large buildings are risk takers, but do everything they can to minimize it.

Existing Multifamily: A couple of interesting findings stood out. First, direct installs were a big part of the historic savings, and conventional wisdom is that they lead to capital projects at the same properties. The other is that property owners and managers highlight the units' energy efficiency to attract tenants. Neither of them proved to be true in this study. It's interesting that ACEEE had the opposite findings in their recent study. Energy Trust results may be related to the fact that the local rental vacancy rate is around 0.13 percent right now.

The overall findings from the four studies were that money is important and incentives really matter, and that return on investment is looked at differently by different customers. That's a very important consideration. Staff also found that customers say they need assistance and they don't know where to start. Energy Trust hears that same concern from utility outreach representatives.

The studies also found that a 1.5 to three-year simple payback is the sweet spot. Using cash versus financing is important, as are incentives. Staff heard that companies are self-financing energy-efficiency investments.

Kim: I recommend you read the studies, because what we hear from customers is very, very different from what we hear in the halls of policy.

Charlie: We've made assumptions for a long time based on what people say. When the economy is better, people might accept longer paybacks, but then it swings back to this spot.

Susan: We also learned that financing is not at the top of the list for why people don't do efficiency.

Scott: Belt tightening is true across the board. People won't look at long paybacks.

Fred: As for the history of this type of study, going back 25 years, we learned that a three-year payback is kind of the outer bound for most customers. There are always exceptions, but we generally end up back at 1.5 to three years, despite economic fluctuations.

Charlie: I wonder if the lack of interest in financing isn't because of the short payback. Maybe if a project meets our payback standards, we don't need financing.

Kim: Also, these businesses don't do the complex level of financial analysis we think they do. Instead, they think: "Why would I assume debt for a project I don't need to do?"

Susan: We learned that senior commercial leaders have saving energy in their “want” column instead of their “need” column. They want to know if there are incentives. The environmental considerations are secondary to them. They are an added benefit instead of a decision-making factor. We learned that easy-to-see projects are easier to sell up the chain of command, and they want a solid proposal and high confidence in the savings. This is why lighting works, along with being very visible.

We heard that they initially do projects for the money, then they’re really happy because of the side benefits, and that’s what they talk about. When it comes time for the next project, they go back to money again. Non-energy benefits are nice but are not selling projects.

Segmentation started as an idea, and the survey confirmed that the market doesn’t segment by typical industry. We found that company culture was the biggest factor. Companies with a sustainability initiative, such as a green team, would be more likely to communicate about savings and invest in projects. Companies that have higher levels of employee engagement seem also to be more likely to participate in our programs.

Anne: So how do you look at company culture to be able to segment and drive marketing?

Susan: We’ve found that it’s more about building relationships than anything else.

Don: Did you ask about culture and these other drivers?

Susan: Yes. All of that is available in the reports.

Mark: Did the sample go broader than just participants?

Kim: This is just participants.

Susan: We tested messages to see which resonated with customers. We found that “competitive edge” for a business didn’t work as a message, and neither did messages about customers being impressed with their environmental attributes. Money and assistance were most important. As a result, we are tuning up our website to showcase successes, and make it look and be easy to work with us.

Kim: This was quickly covered, but all of these are on the website, and they are worth looking at.

Kim: How many of you receive the Champion e-newsletter? As a result of our research, customers said our PDCs are doing a great job, but they’re not convinced they’re always hearing everything about Energy Trust from the PDCs. They want more information to come directly from us, so we started the newsletter. We’ve sent out three of them so far. We can enroll everyone on the Conservation Advisory Council unless there are objections.

6. Looking forward: Industrial issues and opportunities

Kim: We have some subtle Production Efficiency program design changes that we wanted to present. It’s very subjective, which makes it a great topic for advice. In some ways, I’m setting us up for budgeting later this year as well.

The Production Efficiency program has high satisfaction, hits its benchmarks and has been nationally recognized. It has been profiled as having best practices in five different national publications. So we’re not fixing what’s broken; we’re improving on what we already have.

Our custom PDC contracts are up for rebid, so we can look at what they do right now. We are redrawing territories and want to see if we can balance them better. As it is now, they are very different. We need to look at geographical- versus sector-based approaches, along with a bigger idea to expand custom PDCs to serve all our industries that way.

Right now we have both geographical- and sector-based PDC territories. There is a design logic to either approach.

With sector-based territories, having a laser focus on a specific business type will drive us into that market. In some cases, the technology in that industry is specialized, so only a few PDCs would have the technical capabilities to do the work. Another reason for sector-based territories is when there's a need for centralized coordination with related stakeholder groups.

But this design logic doesn't entirely align with our experience. When we created the high-tech "territory," our experience was that the PDCs who had lost some territory to the new PDC were much more motivated to engage the sites they had kept, and we ended up with more savings from high-tech sites that were not among those placed in the high-tech sector. We also found that success was dependent more on the individual than the company. Once we got the right person in the PDC, the outcomes in their territory improved. That points to a geographic approach. Finally, If we put all of our eggs in one basket by assigning all of a market sector to a single PDC, the entire sector is at higher risk of being underserved if that PDC struggles.

Wastewater is one example. Recently, we had an individual with specialized expertise in wastewater assigned to handle that sector. This individual was stretched too thin, and in the end, his program expertise was not sufficient to get projects completed. When we went back to geographic territories, we saw three times more savings from the wastewater sector than before we changed it.

We learned that industry experts aren't program experts. They were great at wastewater or wood products, but we found that the technical generalists were better at running the program portions.

There may be something to note about the third point on the slide. The program staff has a big role in stakeholder coordination. It's mostly done here, with help from the PDCs. If we don't have a single PDC to work with key stakeholders in strategic markets, we do have a single staff member who does this.

The design logic of a geographic approach is much easier. The PDC's role is to interact with customers and help them get from here to there. A geographic territory emphasizes that each site is like a snowflake and is unique. PDCs aren't supposed to move markets, but rather move sites and individual customers toward taking action in the program. PDCs, while usually knowledgeable engineers, ideally are technical generalists, and know when to call in the system experts. They aren't focused deeply on one technology. Diverse territories that cross sectors provide some protection for PDCs against external market factors, also, that could jeopardize their ability to meet goals.

My question to the Conservation Advisory Council is whether you know of compelling reasons to continue the sector-based territories for some sectors in the future? Internally, we think geographical is better.

Pam Barrow: Initially, we felt that an expert in the food processing industry would yield good results because they understand our language. When we went that route, I still got calls to find out who was our Energy Trust contact. We are just completing a study on barriers to implementing energy-efficiency measures, funded by the U.S. Department of Energy for later this summer. One thing I hear is that we don't know much about the incentives, programs or how to find out about them. Someone managing the project for us at a high level would really help. There is a host of technical experts to do the detailed work, but having a local person who could have more interaction with the facilities on a regular basis would be better than having the entire state as a service territory.

Warren: How would sector-based territories affect the interactions with ATACs?

Kim: The PDCs put in a request for a technical study, and we decide whether to hire an ATAC for the study. The only difference is how we draw the territories, so it doesn't change the interactions with ATACs.

Don: Does this support your second objective?

Kim: Yes. As long as you have this hybrid approach of both geographical- and market-based territories, it makes it difficult to sort and communicate with customers. Also, if the territory is spread out, you get drive time and other challenges.

Andrew Regan: I work for Rogers Machinery, and we do compressed air studies and implement projects. We are a trade ally, but in some ways we act like an ATAC, and we used to be an ATAC. Our standard approach to calculating savings from compressed air projects has been pretty well accepted. We've found that a change in a PDC tends to slow our pipeline. There's confusion about who to call, which slows things down. Customers get partway into projects and discover they are dealing with the wrong PDCs. We found some help by having one company handling a sector. Pulp and paper mills are few and well-established, and have a high risk of going out of business. For our folks, we are out beating the bushes. I like to tell Fred that our market has been totally transformed, and there are no free riders. The most important step for us is getting customer buy-in. Hopefully, you have management on board already. It simplifies the one- to three-year span on the custom side. It can be months on the small tools side. I can't project whether this proposed change will be positive or negative. We heard about the wastewater situation in the old days, and we learned that they were harder to approach because they had huge projects to consider versus our small ones.

Kim: Change is hard, and when it comes to a market actor like Rogers, we can see that change is hardest on trade allies. We have to keep that in mind.

Charlie Grist: A lot of this is about personal relationships and levels of trust that take years to develop. I hope that any redesign keeps that in mind. Building those relationships is a big investment. They aren't direct Energy Trust investments, but are necessary to get the job done.

Kim: I completely agree. We do have to re-cut our territories, even if we choose all the same incumbents; they just aren't optimal to achieve goals. Some relationships will need to change. Customers have relationships with the PDC but also with our staff. We've increased our work on building direct relationships because of the need for consistency. Also, people leave PDCs and that also means the relationship changes. Each time the relationship transitions, staff plans to meet with the customer and take the old and new PDCs with us to do a warm handoff. If there is a clear objection from the customer, we have to work through it and, as appropriate, make exceptions to the territories we are setting up. That's the primary transition task in the contracts.

Don: When you talk about rebalancing territories and lining up potential, will there be more or smaller territories? What are you balancing to?

Kim: I want to align savings potential with PDCs. The Bend area is a tough one, for example. There isn't a lot of load there. We're looking for three to six PDCs.

Don: Are you looking at other things, like no more than a two-hour drive to get to key people?

Kim: Yes, we're looking at that.

Jim: Yes, and look at things like how you serve Ontario.

Lance: When you took the high-tech industries out of certain territories, it spurred the PDCs. Are you looking at that type of competition building exercise again?

Kim: We always have competition under the PDC model. Each year, we establish goals and budgets for PDCs. If they are underperforming or other issues are occurring, we are always able to shift territories and assign the work to other fully functioning PDCs. That creates an ongoing competitive situation and mitigates risk to Energy Trust. One of the important things is that they function with us as a team. We don't want them competing for customers in any way, and therefore we are very careful to create territories with clear boundaries. After they get the bids done, and have contracts, they become very collaborative. We create a very subtle competition on an annual basis and through the contract bids, so they know they have to keep performing well.

Scott: They are all out selling the same thing. They're really sales and marketing companies with specialized engineering knowledge, but each territory must have different goals. Are there performance payments of some kind?

Kim: We have fairly small performance compensation for PDCs, typically tied to meeting and exceeding goals. But if we overemphasize incentives for PDCs, they focus on them too much. We try to get them to offer pristine customer service instead by having their contracts be almost entirely based on time and materials.

Mark: We heard that one thing people appreciate about Energy Trust is confidence in our technical knowledge. This seems to miss that finding. How do we work with ATACs to provide that part?

Kim: The ATACs are system experts rather than market experts. We do run into PDCs who are also ATACs and have deep expertise, but it influences what they do. A PDC who is an expert in dust collection will see dust collection opportunities wherever they go. They are amazing engineers, but they do need to be generalists to see more opportunities.

Karen: You asked if there were any reasons to continue the sector approach. If there is something sector-based that's working, that would be a compelling reason. Does that exist?

Kim: The approach is working, but is it better in some way than a geographic approach?

Karen: If you have a situation that's going well, that might be a compelling reason. Is there one that is going so well that you don't want to disrupt it?

Kim: I'm not seeing enough benefit to offset the complexity of this hybrid approach, but that's the type of question we have to look at. The council should be aware that some industrial customers will be getting new PDCs either way. How we do it is a nuance, but the fact remains that some will change PDCs as we re-draw territories. We make those decisions at the program level, and the Conservation Advisory Council can help us with making a program decision. How we cut the territories makes sense as a discussion for the Conservation Advisory Council.

Wendy: Have you talked to the customers who will be impacted?

Kim: They are aware of the competition but not the details. We don't know yet who will be impacted.

Wendy: In the residential arena you made a significant change, and I heard a lot of negative feedback from contractors in that world. While I'm sure you had good reasons, more outreach could have mitigated the negativity.

Kim: When I say we will be reaching out one-on-one to the customers, I mean that we are calling to say: "This is what we propose. Are you okay with this?" The intensity of the reaction will determine what we do. I have tried it with five so far to just discuss the concept and all have been both complimentary to their current PDC and okay with changes we might want to make.

Jim: This discussion is on the end of the agenda, and it looks like there is some meat to it. I heard that program managers have already decided, but then heard that we're going to get feedback from customers. Can you clarify that?

Kim: We have to run the rebid, so some territories and PDCs will definitely change.

Jim: You've got two potential changes, then?

Kim: Yes, there are some parts that are about the program model and others that are about the rebid. It's a fairly small impact, but it's good to discuss here, because it's a way to test these very subjective things where there's no one right answer. I'm going to reserve some time at the next meeting to discuss expansion of custom services to all industrial customer sizes, since we didn't get to it. My question for all of you is: should we only cover things we can dive deeply into?

Jim: If you think it's something that customers or trade allies are going to have a severe reaction to, especially because a lot of time and resources went into building the relationship, we should spend lots of time on it so no one can say your advisory council didn't look at it.

Don: I think you look for feedback about geography versus market and test the way winds are blowing. However, Energy Trust is running a business and you have policy requirements, customer service metrics and the like to keep track of. I think this is the right level of discussion. If we keep revisiting it, can you still keep your goals on track? Our group can spend a lot of time on it, but then we get further into running your business for you. I only want to see that you are headed in the right direction; then keep me informed.

Kim: The industrial sector is only 7 percent of Conservation Advisory Council topics, and they aren't hot topics. There's not that much drama in them. If the priority for the council is to make sure the drama comes to this group for discussion, you won't hear much from industrial. It helps me to get an hour or half hour on the agenda to get your advice.

Warren: A lack of drama here doesn't mean it isn't out there. We can't overstate that they might come in later with drama. During rebids, a PDC may slice things to show they are good in a geographical area or good in a certain sector. They will try to slice it the way that makes them look best. We have to speak for the customers and guess how they might feel too.

7. Adjourn

Kim: The next Conservation Advisory Council meeting is mostly residential, and I will probably come back with the expansion of small industrial the next time.

Kim thanked all council members for their participation and adjourned the meeting at 4:45 p.m. The next full council meeting is tentatively set for June 19.