Board Strategic Planning Workshop
Edgefield McMenamins, Portland, Oregon

June 8 and 9, 2012

Friday, June 8, 2012

Board members present: Rick Applegate, Joe Benetti, Julie Brandis, Ken Canon, Roger Hamilton, Jeff King, John Reynolds, Debbie Kitchin, Dan Enloe, Alan Meyer, Bob Repine (Oregon Department of Energy special advisor), Anne Root, John Savage (Oregon Public Utility Commission ex-officio), Dave Slavensky

Staff attending: Margie Harris, John Volkman, Sue Meyer Sample, Ana Morel, Fred Gordon, Elaine Prause, Amber Cole, Steve Lacey, Peter West, Bradford McKeown, Scott Clark, Debbie Menashe, Hannah Hacker, Nancy Klass

Others attending: Jim Abrahamson (Cascade Natural Gas), Lauren Shapton (Portland General Electric), Bill Edmonds (NW Natural), Juliet Johnson (OPUC), Margi Hoffman (Governor Kitzhaber's Office), Nicole DeMond (PSU), Peter Lindberg (PSU), Ben Ludwig (PSU), Maddy Sauter (PSU), Jason Eisdorfer (OPUC)

Workshop called to order at 8:09 a.m., introductions and agenda review – Nick Viele, workshop facilitator from C3 Strategy

Presentation: A changing energy landscape – Margie Harris

Margie welcomed the board to the retreat and said she is grateful for the time and dedication the board gives throughout the year and especially for this annual workshop. Margie thanked those that contributed to the creation of a very thorough and clear packet: John Volkman, Fred Gordon, Elaine Prause, Ted Light, Lakin Garth, Adam Shick, Jed Jorgensen, Betsy Kauffman, Kacia Brockman and David McClelland. Plus, the note takers for the next two days: Hannah Hacker and Bradford McKeown.

Margie thanked Nancy Klass for the nearly 10 years of work she has contributed to Energy Trust. Margie introduced Nancy's replacement, Ana Morel, recently of Jubitz Corporation. Margie also thanked Nick for facilitating and Dave Bamford and the rest of the sound crew.

Margie reviewed the agenda for the workshop, which includes an update on strategic planning goals and progress to the goals, and the associated challenges and opportunities Energy Trust is seeing in electric efficiency, gas efficiency and renewable energy. These topical discussions will be followed by results from a Portland State University research project into the option of Energy Trust providing consulting services.

Margie started by describing Energy Trust progress toward gas efficiency savings: We are confident will meet if not exceed strategic goals as set forth by the board. We are meeting the challenge of acquiring savings faster. Results are driven by gas efficiency programs maturing, as they are playing catch up to the electric efficiency programs. Gas programs now serve all customers – residential, commercial and industrial. Programs are also going deeper into the market to capture savings. Gas savings are brought in by residential sector (51%) from furnace retrofits, CFLs and showerheads; commercial sector (41%) from custom measures, automated building controls and heating equipment, including boiler replacements; and, the industrial sector (8%) where we are picking up speed. The industrial gas programs are comparatively

new, and include savings from heating and ventilation improvements related to manufacturing processes. Our earliest industrial gas savings are from the horticulture industry, specifically greenhouses. Cumulative gas savings from 2002-2011 equal 23.2 million annual therms or 67% of the strategic plan goal.

Margie described Energy Trust progress in electric efficiency savings: Electric savings show a similar spike in savings as the gas programs, with the spike starting in 2009 and continuing. Our focused efforts to acquire savings faster and sooner worked very well within a short timeframe. We exceeded board stretch goals. However, the growth rate is leveling out and we are predicting that electric savings could come in below strategic goal. To avoid this, we've prepared materials in the packet that show strategies to bring savings back up. Electric savings split rather equally in thirds between the three sectors. Lighting is the main measure in all three sectors; plus, commercial also acquires savings from HVAC, industrial savings from primary processes and compressed air, and residential savings from refrigerator recycling and energy saver kits. Cumulative electric savings from 2002-2011 equal just over 300 aMW or 322 aMW when self-direct savings are added. This equals 67% of the strategic plan goal.

Margie showed a chart of electric load growth in Oregon, plotting two lines, one of growth with Energy Trust programs and one without Energy Trust programs. The difference between the lines is about 600 aMW that Energy Trust is contributing. Most of the load growth projected within this time period can be met by the savings Energy Trust is acquiring.

Margie said the track we are on toward achieving strategic goals is remarkable, especially given the down economy and the changes in the Business Energy Tax Credit. We rode through the Business Energy Tax Credit transition by doing quick analyses, diversifying offerings, targeting outreach and offering limited-time bonuses.

Margie described the renewable energy programs: The programs are experiencing overall success with generation mostly from biopower projects and high volume solar, especially residential installations. We are seeing growth in small hydropower at irrigation districts. Small wind and geothermal are still a smaller piece of the pie and that is to be expected given the cost of the technology and more limited applications. Cumulatively, Energy Trust has added a total of 104 aMW of renewable generation to Oregon's grid. This is 84% of the strategic goal.

We believe the reduction in available state tax credits will have a dramatically different and significantly bad effect on renewable energy projects next year, which are far more dependent on subsidies. We expect to see a significant drop in renewable energy projects starting in 2013. Beyond lack of subsidies, large wind projects are also a much smaller piece of the overall pie. Over time, we've had dramatic growth in the type of renewable projects we've funded, most evident this year, our banner year. At the end of 2012, the tapering off we predict is reflective of the loss of the state tax credit and a cash-constrained future. We've always had carryover of renewable energy funds and now, that carryover has been used up, leaving our funding constrained. Unlike on the efficiency side, we have no SB 838 mechanism leading to enhanced funding for renewable projects. This leaves us with more project demand than we can meet with fixed funding.

The OPUC performance metric for renewable energy acquisition is 3 aMW on average over 3 years. With our focus on smaller projects of 20 MW or less, the OPUC has temporarily suspended this metric during 2012. This is allowing time for us to work with OPUC staff to identify potential new performance measures to capture our other important aspects of our work in the renewable energy market.

Margie highlighted reference in the board packet to “solar market maturity,” and showed a Costco display of a Lennox HVAC system.

Margie showed a slide of overall progress to 2014 strategic goals indicating savings and generation booked through the end of 2011. Total clean energy acquisition by Energy Trust is greater than the output of a typical coal plant.

Margie said part of the strategy for maintaining momentum and increasing activity is innovation, especially technological innovation, a theme the board will hear throughout the workshop. One of Energy Trust’s partners in expanding innovation is the Northwest Energy Efficiency Alliance. The packet describes how we approaching innovation through a variety of strategies, including innovative program design such as financing and deep retrofit, strategic marketing and outreach, and development of emerging technologies.

Margie talked briefly about the Governor’s Draft 10 Year Energy Plan, which reflects the changing landscape around clean energy acquisition and discusses a broader array of ways to encourage clean energy investments. The current generation of energy efficiency and renewable energy is driven by more diverse benefits and values that go beyond energy saved or generated. Though cost-effectiveness remains a piece and a requirement for Energy Trust, those pursuing clean energy are motivated by other non-energy benefits.

Margie said these broader goals are to reduce carbon emissions and help meet state greenhouse gas goals, economic development benefits, job creation, workforce development and training a competent workforce and also transportation. This is a first time in a long while that the state has had a visionary document to provide a long-term vision and framework for consideration of policies and actions, all of which are intended to increase the value derived from clean energy investments. Energy Trust is mentioned prominently in the Governor’s draft plan document. Today, Margi Hoffman, the Governor’s energy advisor, will address the board. Staff will carefully review the draft plan and will provide an official response within the 60-day comment period.

Margie mentioned she feels extremely fortunate and appreciative of the board for being so engaged and prepared, and for steadfastly contributing to the role and success of Energy Trust for the past decade. In rephrasing a statement in the Governor’s draft 10 Year Energy Plan, she concluded her opening remarks by saying [changes in italics]: “This is a key moment for all *Energy Trust of Oregon board members* to participate in getting our future right.”

Overview: Energy Trust energy-efficiency performance – Fred Gordon

Fred reviewed the objectives for his energy-efficiency presentation:

1. Board discussion of priorities and emphasis for Energy Trust’s innovation
2. Discuss Energy Trust and state/global strategy
3. Identify issues beyond Energy Trust direct control that may limit success

Overall, Fred said he is looking for the board’s feedback and guidance on helping Energy Trust staff direct limited dollars to meet 2013-2014 strategic plan goals. Discussion today will include the following strategies to meet those goals:

- Marketing and outreach
- Energy Trust financing initiatives
- Energy Trust’s role in deep retrofit program design

- Energy and non-energy rationales for accelerating efficiency, and how they connect to our mission and charter
- Achieving forecasted savings given gas weatherization cost-effectiveness and energy-efficiency funding for large electric customers
- Positioning Energy Trust post-2014, and the forecast "drop" in annual savings in 2017
- 2013-2014 innovation priorities

Fred showed a chart of how Energy Trust allocates innovation resources, between larger allocations to program design and development, and marketing and outreach, and smaller allocations to new technologies and long-term resource planning. The question to the board is should this snapshot change and how? Fred said our job is to get all cost-effective energy efficiency. In order to meet our future goals, we need to decide where to focus our limited dollars for innovation.

Fred showed a chart of past and forecasted acquired energy efficiency, with new technology indicated above the curve. Around 2017, you see a drop in savings and that's because we're capturing existing "known" resources. The assumptions underlying the chart account for changes in program design, financing and marketing. The tailing-off is because we're going after smaller things and more difficult markets. The challenges ahead stem from ever increasing standards and codes, including outlawing T12 lighting fixtures in the next two years. Such actions remove our "bread and butter" savings and set the bar for savings acquisition higher. When these common measures go away or become part of a standard or code, we need to ask what are we going to do to replace the savings they represent. New technology can raise the curve. This will take ingenuity and, it will not allow us to double what we're doing. We need new technologies and new practices, helping people learn how to manage their energy use, especially industrial customers. We will need to innovate.

John R: What are your thoughts on the recently released ACEEE report about the future of efficiency?

Fred: It's a great report, and captures a lot. It talks about technological advances that we already include in our supply curves. There's also innovation from behavior, especially in homes, that aren't in our supply curves because we don't know how best to measure it.

Ken: I do have faith that the savings curve will go back up after 2017. It's notable that we're getting to the level where we're acquiring all known efficiency measures.

Fred: This is a really exciting moment. It's time to change. What's the next chapter look like?

Fred said another popular policy topic today is accelerating electric efficiency. He showed a graph on pp. 8 that indicates what is likely to happen if acceleration is attempted. Unless we find more resources, we'll only create a more dramatic tail-off at the end. It's an interesting decision to acquire electric savings sooner. We need to keep balance for the market, especially for contractors. There are pros and cons to this proposal.

Briefing: Energy Trust energy-efficiency performance – Fred Gordon

Fred discussed how to achieve forecasted savings in 2013 and 2014, primarily by expanding on our strengths:

- Strategic marketing and outreach
    - Outreach to more and different customers, and tailored products for specific markets
- Financing
    - Staff estimates Energy Trust programs attracted approximately $150-$200 million/year as customers invested their own funds along with our incentives. Customers financed their projects through traditional lending instruments including lines of credit, cash flow, and equity. There are also customers who lack cash flow and/or equity. In these situations, financing may help, and may result in deeper investment in efficiency, moving away from incremental upgrades and individual measures to upgrading multiple measures at one time. This is where we could help.
- Deep retrofit
    - This is a policy topic for Energy Trust and one we are already engaged in programmatically across sectors and types of customers:
        - Homes: Home Performance and Clean Energy Works Oregon are finding a market for deep home retrofits; however, costs are higher than the standard approach.
        - Commercial: Programs here are less mature. A few years ago, NEEA pulled lenders together to ask what would have to happen for them to finance deep retrofits. A current NEEA pilot with four buildings is testing financing for this market. Of them, three are financing internally and one is using a bank. These are both examples using traditional financing.
        - Commercial: There is some policymaker interest in an energy efficiency power purchase agreement. The OPUC has held an in-depth workshop on the subject and OPUC staff will prepare a paper on next steps by year-end.
    - Deep retrofits and financing works for some niche markets.
        - Home Performance and Clean Energy Works Oregon are finding that more measures are installed per home using financing. The majority of Existing Homes savings are still derived using the more traditional approach of a trade ally installing one measure at a time, as shown by the graph on pp. 13.

Ken: What would the graph look like if you showed savings and not sites?

Fred: It would be similar, with the financing lines larger but still only a quarter or a third of the total savings.

Fred described the increased costs of the Home Performance and Clean Energy Works Oregon approach.

Debbie described her experience in costs being high in the beginning of an offering and then lowering as the offering matures.

Fred showed a chart of Energy Trust current roles in financing. There are groups like Umpqua Bank with its GreenStreet financing, plus lending allies, which use traditional financing approaches. There's also an on-bill effort, where Energy Trust is working with other parties on the approach, providing outreach and evaluation, almost like an ally to financing specialists. Other approaches include virtual utilities, like recent energy efficiency power purchase

agreement pilot discussions, and state and municipal loans where the state floats bonds. The Oregon Department of Energy State Energy Loan Program (SELP) has a good rate for public and nonprofits. However, the state is running into an issue with how much leverage it has. We are also working with a school loan option. There are still other approaches, like Energy Trust's renewable energy construction loan. Pre-construction financing is a known gap for renewable projects, and we are looking for a good project to test this approach.

Fred showed a slide listing what Energy Trust's potential overall role in financing could be:

- Providing informational/educational resources, especially to customers and lenders?
- Directly connecting projects to third-party financing?
- Funding credit enhancements for targeted markets?
- Lender? Contributor to capital pool?

- Offering interest rate buy-down?
- Different role in different market segments?

Before discussing the answers, the board broke into groups to discuss what their top concerns are from Fred's presentation so far, where clarity is needed and ideas and suggestions to the team.

Group 1: Ken, Dave, Dan, Rick. Ken reported out.

Ken: As you go through Elaine's document on programs that are ARRA-fund dependent, how long will those funds last and what's next? It would be helpful to understand as we go forward. Also, in a number of areas in the documents, denominations are in dollars or savings; we are interested in the convergence of that, how much are we spending per aMW. Also, we would like more context as we hit the tail-off; for example, residential, how many houses have we worked with, what's left, this information would help provide a sense of scale. As we look forward, we want to ask what have we left behind? What's available out there? Are there areas that as we move forward quickly, there are nuggets of information that will take more effort but are still valuable to pursue later? As for financing, we support taking some risk but making sure the risk is relatively small.

Fred: In terms of what we are spending, I'll use levelized cost, which is basically a cost/kWh with some financing. Our avoided cost is 7-10 cents per kWh. Our programs are running on average at 3 cents per kWh.

Ken: Good. Also, on the materials you provided, like pp. 8 Table 1, there are a number of different metrics to look at programs. It helps to correlate this to the aMW we get in one way or the other and combine dollars with that as well.

Fred: We have struggled with doing residential deep retrofits because costs per contractor are significantly more, and with Clean Energy Works Oregon, there are other requirements because it uses federal money. The indications show most deep retrofit weatherization is for gas heated homes and for some, cost-effectiveness is difficult. We know Home Performance and Clean Energy Works Oregon programs are more costly. Bottom line, we're taking more expensive measures and making them more expensive.

Dan: But those programs aren't all our money. We'd like to know how much savings we got for our money.

Fred: We do tests on these measures that take into account costs, including the societal test. In terms of our funds, we are spending a little more to facilitate Home Performance, though we are mainstreaming it because the contractors are taking the lead. For Clean Energy Works Oregon, a lot of the costs are funded through ARRA and our incentives are the same. This means higher transaction costs. Gut check is this isn't huge, and a modest range. ARRA funds are going away. Clean Energy Works Oregon has $8 million in cash reserves, and they do need to come up with a different revenue model, which is what their business plan is about. Some of the other ARRA projects are public projects and those will go away.

Ken: We don't need the answer today; it's something to keep in mind to provide context for us in these strategic discussions.

Elaine: We do update our assumptions on available stock, what's out there and what's remaining.

John S: We haven't, as a state, done a real stock analysis in over 20 years. Is NEEA taking this on?

Fred: NEEA is completing a significant regional residential stock analysis. We know we've been weatherizing them since the 1980s. The study will enable us to analyze the data for our service territory and help inform our investment strategy going forward.

Group 2: Roger, Alan, John S. Roger reported out.

Roger: Have we done a scenario analysis? What if the economy heats up?

Fred: We do this some in the IRP planning process. Longer-term, it's about conservation supply; shorter-term, it's about our strategic plan and at this point, we think we'll come in a little under our own strategic plan.

Roger: We would like more information about the 2017 drop off, and think it's too soon to forecast it. Gas prices aren't going to stay this low. Is SELP still available?

Bob: Yes, it's still available and working. We are seeing issues from getting out of construction loans to just loans for completed projects to reduce risk. This is a function of the economy and has changed the landscape.

Roger continued: We made comments on the energy services surcharge program, and that it may be a way to overcome the challenge of building ownership change. We discussed that we should not be in the financing business but we may have a role in training commercial bankers. They may lack the technical expertise to explain the benefits of these projects and the financial lifecycles, too.

John S: There are some clarity questions, especially as we write the energy efficiency power purchase agreement paper. With deep residential retrofits, are we simply speeding up or capturing new savings? With financing, where are the real gaps where financing makes a difference? What are the target market segments that we need to go after?

Fred: The drop off in 2017 is not a cost-effectiveness issue, it's a supply issue. Also, people are doing on-bill financing. The question of whether we will get to the same place using the standard approach is what we are currently analyzing. As far as segments that need financing, it's for

people who have no capital and have interest in retrofits or who are facing a major new investment, like a boiler.

John S: You've described the characteristics, now describe the potential.

Fred: We don't know.

Alan: Is financing a road block? If so, should Energy Trust be involved and if yes, how? Are you buying down the loans? If you're doing this, why not just increase incentives?

Fred: Before our major programs started, we had a quick start program to help buy down SELP loans. The fact is people like cash, and we're not sure the loan buy-down made a difference.

Elaine: We're creating a Lender Ally category to help educate the community and commercial banks. They are willing to work with us. Maybe we need to communicate with them more.

Fred: There's also our long-term effort with Umpqua. Also, NEEA is working on how to proceduralize deep retrofits so it can be done more routinely and cheaper.

Group 3: Julie, John R and Debbie. John R reported out.

John R: The cost-effectiveness item also concerns us. Fred, you pointed out its not cost-effectiveness but supply. We are somewhat uncomfortable that technology will save us, and it has in the past. We want to know what we are doing in conservation now that we weren't doing in 2002-2003.

Fred: We will get into the latter question later today, on the resource supply issue. On the gas side, there is a lot of resource supply but a cost issue. On the electric side, it's a supply issue.

John R: Are we really doing as much as we can with renewables? Is there a different role for us in renewable energy in terms of above-market costs?

Elaine: We can talk about that tomorrow morning. It effects how we balance the budget, too. To the extent that we can provide more funding, it would help the project move forward but it's a balance of how much budget we have available.

Julie: I like the idea of training commercial bankers. It shows how we are helping the economy. Sometimes it's not about creating new jobs or businesses but about adding value to existing businesses. I like the idea of adding our brand to community banks, and this is a good connection for board members.

Rick: The strategic planning committee also struggles with the 2017 drop off and whether it's real.

Fred: That will be the last discussion of the day.

John R: About educating lenders, do they have to get continuing education credits? And if so, we could intervene there and provide energy efficiency education.

Roger: They do get continuing education credits.

Fred: Lately, we've seen more interest in efficiency financing as a business line than we've seen in my lifetime. If banks want to turn it into a widget, energy efficiency is not a widget but we can work on how to make it look like a widget for them.

Group 4: Jeff, Anne, Joe and Bob. Joe reported out.

Joe: We concentrated on strategic marketing and outreach. Let's get into areas where we aren't engaged a lot. Example: my hometown in Coos Bay. How can we engage them? Anne had the same thought for her region in Medford. It's hard to get these areas engaged. An example is a new hospital being built in Coos Bay and the lack of interest in energy efficiency, even after I approached them a few times.

Anne: I sit on the Business Oregon board and as I travel around the state, Southern Oregon through Southern Oregon Regional Economic Development doesn't reach out to businesses to link efficiency. There's a big market in rural areas. The focus seems to be Portland and the metro areas, that's where the buzz is. An opportunity to have a bigger footprint is to engage more in other areas of the state, work with city offices and planning entities. How are we bringing the programs down into local communities?

Dan: A key item for a new project like Joe described is if you're only talking to the architects and engineers, they have a very short timeframe. Energy efficiency is a 15-20 year horizon and you need to be talking with owners, not just the designer.

Amber: We do know that we need to reach all areas of the state, and we've made a much more concerted effort to do so over the past several years. There's more to do. We're working on outreach plans that are program based and general, making sure Energy Trust is present at community forums and that we're reaching decision makers. There's more to come on that, keeping in mind there's a corresponding cost and balancing where we need to spend our resources. On the question about reaching owners and decision makers, there's a lot of work going on in the programs and effort in thinking how we package for the decision makers, not just those managing energy on-site.

Peter: We recognize, particularly for the commercial sector that we need to spend time communicating up the chain. We've been engaging with those who do our studies to talk in different ways about the investment, whether it's ROI, IRR or other ways. Also, we are working on educating facility managers, and we're seeing that is best done by identifying champions.

Margie: We have a presence in all parts of the state, in Eastern and Southern Oregon in particular through outreach contractors we've retained, through our Trade Ally Network and through the regional offices of Pacific Power and Cascade Natural Gas. We've made a concerted effort to be visible through workshops, events, campaigns and a constant presence. That wasn't the case a few years ago. We want to work with board members to learn who else we should be talking with from your communities. We are open to further suggestions.

Ken: On a year-to-year basis, does Energy Trust run into the situation that we can't afford to do more projects? Like in Pacific Power territory given the recent reserve use?

Margie: We are constrained in a few areas, like Pacific Power and renewable power projects, where there's a greater opportunity, more project diversity, and not as much money. The second area is on the industrial side, which has good success. Buzz Thielemann from RHT, a Production Efficiency Program Delivery Contractor, is great at drumming up activity and there

can be revenue constraints again. We are typically seeing more interest in Pacific Power than funding allows.

Anne: I think rural areas are a different animal than the Metro area. Staff should think of different ways to communicate, like partnerships. These areas are less collaborative; we've got pioneers who say they can do it themselves. We need more door-to-door.

Margie: We recognize those distinctions and welcome more of your insights.

Alan: It's because we recognize this that four of the last six board members are not from the Portland Metro area. And we rely on you to bring that perspective. Another question is societal costs. In a meeting yesterday, it came up that BPA is concerned about the societal test and others are, too. It would make sense to me to look at societal costs in terms of ratepayer contributions, maybe taxpayer contributions. Why don't we support whatever a customer would be willing to invest in?

Margie: A timely question. If we can make it clear to the consumer what the payback is on these higher-cost measures and the consumer still wants to move forward, that's their choice.

Alan: We need support from John Savage and from the Power Council that there's a growing desire to look further into this.

Margie: This question is being asked nationwide.

Break at 10:09 a.m. Retreat resumed at 10:22 a.m.

John Savage left the workshop.

Briefing and discussion: Governor's 10 year energy plan – Margi Hoffman, energy policy advisor for Governor Kitzhaber

Margi thanked Margie, staff and the board for the opportunity to be here today. The Governor views energy as one of the centerpieces for our future. The plan is a foundational document to look at energy policy and to be used as a guide for making energy investments.

Margi said last year Michael Jung headed up six taskforces who met for a period of months and completed comprehensive analysis of the history of energy in the state, what we've accomplished, plus what's working in other areas. The goal is to transition to a clean energy future. There were 198 policy recommendations presented to the Governor. She reviewed the policy recommendations to help set clear goals and a clear focus for where we want to work toward in the next 10 years.

Margi described goal 1, which is aggressive energy conservation. The plan calls for meeting 100% of future load growth with efficiency. Energy Trust has been a huge asset to the state in terms of helping us meet goals in energy efficiency and renewables.

She said the second goal is a focus on clean energy infrastructure. We have a renewable portfolio standard but lack of alignment between land use goals and energy goals. This creates uncertainty for our public agencies that are protecting our natural resources and uncertainty in transmission planning. The plan cleans up operating principles at the Energy Facility Siting Council. The plan also talks about the RPS as a floor, not a ceiling.

Margi said the third goal is transportation. We have a declining revenue base because primary funding is from a gas tax. We need to look at other ways to fund multi-modal transportation in the regions of the state where this makes sense. The plan also sets a goal of converting 20% of large, short distance fleets to alternative fuels in the next 10 years, using electric, liquefied natural gas and compressed natural gas. We should take lessons learned from how we fund power generation and see how they can help on the transportation side.

Margi said the plan is a distillation of the 198 policy recommendations and puts them into these three categories of where to focus in the next 10 years. There are pieces of the plan that are vague, and that's deliberate. Comments are due by close of business on July 31, 2012. The plan is posted on the Oregon Department of Energy's website. We will also do an outreach tour of the state.

Margi said she looks forward to a conversation with all of the board members and from Oregonians in general on what they need to secure their energy future.

John R: Thank you for talking with us. The part of the plan that intrigued me is where it says: "The Energy Trust charter must be expanded." But no specific recommendations follow the full statement. Is that on purpose?

Margi: That is exactly one of the areas where we have laid out a direction on where we would like to move on and partner with you but we haven't yet laid out the specifics.

Margie: A lot of the opportunities are in the packet for today. When we complete our two days of discussion, there will be a formal process for responding to the plan, engaging the board and specifically the Policy Committee. We've talked with Commissioner John Savage and the OPUC on what the plan says. John is highly supportive of Energy Trust diversifying as long as we have adequate other funding.

Roger: On the greenhouse gas reduction targets is there anything in the plan for strategies on reducing greenhouse gas emissions? Is it the Power Council's goal of reducing to 80% below 1990 levels?

Margi: Since the 2009 session, greenhouse gas emissions reduction goals were established. But how and at what cost? A recommendation from the task force is to commission a McKinsey-like study to get more Oregon specific data. We've moved forward with this recommendation outside the plan, and an Oregon Department of Energy-commissioned study is due in the summer. Since the 2009 legislative session, the appetite for looking at carbon policy seems to have disappeared. The Governor's office is interested in looking at how to meet the goals. In the areas of the plan where we've specifically addressed policies to pursue, the OPUC is looking at an aggregate of the policies and what greenhouse gas reductions would result. It's important to be forward looking, not just a 2020 outlook but a 2050 outlook.

Rick: Given the region is poised to make substantial investment in transmission, how does distributed generation play a part?

Margi: That's another open-ended part of the plan. We do need to make distributed generation more accessible to people. We need to also talk about the role and cost of storage, and how that can reduce the need for transmission. Another active program is the feed-in tariff program, which is still open and we are still gathering cost data and results, the outcome of which will help inform the plan.

Ken: I hope we focus on action items directly for biomass.

Margi: The Governor is very focused on how we can transition to biomass or use biomass as a back-up energy source. The Oregon Forest Biomass Working Group has a set of recommendations. We are going to roll out a set of policies on biomass shortly.

Dan: I liked the regional theme that flowed throughout the document. There's a lot of opportunity for coordination.

Briefing continued: Energy Trust energy-efficiency performance – Fred Gordon

Fred mentioned energy efficiency is gaining support as a job-creator and carbon-reducer strategy. Fred briefly described Energy Trust's charter around energy efficiency, which is to deliver energy savings to the utilities. The cost-effectiveness test does not include jobs. The avoided cost includes a forecast of carbon mitigation. This is important to know when talking about achieving other goals for energy efficiency.

Fred said the main way Energy Trust helps create jobs for the economy is not the extra workers or those contractors who directly install the products and services. These visible efficiency jobs represent a smaller portion of jobs created. Instead most of the jobs and economic benefits come from lower energy costs. It's a multiplier effect. Money that is freed up from savings on energy bills is then spent on other items, which in turn, help create or sustain jobs. The best way for Energy Trust to create jobs is to get cheaper energy efficiency. There will be a push and pull over what sort of jobs we should support.

Fred said to save more carbon, it helps to get into more markets. At the rate we're doing this, more carbon savings is hard to do without more funding. Financing may help us get more carbon.

Fred said the question is do we focus on our mission, or transition to a broader mission to support these non-energy goals?

Ken: Is the avoided cost line linear with jobs created?

Fred: Yes, in general, with many asterisks.

Debbie: We should emphasis more that job creation potential is from bill savings and communicate this to the legislature and other policymakers.

Anne: It also adds to competiveness; you sell more, you hire more.

Dan: It's who the bill is benefitting.

Fred clarified how the economic analysis is undertaken.

Margie: What we're talking about is how we strategically present information we already have, so people can have greater visibility into the multiple benefits we bring. We can do more of that, without changing our mission. And typically, this is not what we lead with.

Alan: We've learned from surveys that regions respond differently to our messaging.

Margie: Alan is referring to our market segmentation research.

Roger: National media is doing a better job at describing the cost of carbon. It's important to be more articulate about this.

Fred: There's been a lot of market research on how people respond to messaging. People are not responding to the broad environmental message. The bridge between environmental and energy issues is "waste."

Ken: NEEA is coming up with a coordinated marketing toolkit for utilities in the region.

Anne: There's a lot of disappointment in the business community from tax measures. There's a strong argument for the fact that the jobs data is an important message to get businesses here or keep them here.

Joe: With the 10-year plan coming out, it might give you an avenue to talk to legislators about your story.

John R: It's true that the efficiency jobs are a smaller portion of jobs created but they are jobs that can't be outsourced. That's a good message, and one that the Governor's plan zeroes in on.

Fred continued his presentation on gas weatherization cost-effectiveness. We are still building and learning on this side. A lot of gas savings are from homes, because many heat with gas. Most measures look good on the utility test. A significant share of the program is based on wall and floor insulation, air and duct sealing, the building blocks to deep retrofits. These do not meet the societal test. And the societal test doesn't include job benefits and costs to pursue them, or health or comfort benefits. Customers say comfort is not a primary investment driver, it's bill savings. We've had formal conversations with OPUC staff on what this means and what we can do about it.

Fred said staff worked on some options for the OPUC to consider, and other ways to think about value and cost to society. OPUC staff is also talking with consumer advocates, CUB, contractors and the gas companies. In Washington, the utility is the contractor and we will talk to the Washington Utilities and Transportation Commission through NW Natural.

Fred showed a slide with possible new interpretations on the societal test. We are trying to figure out what to pitch, what choices to show the OPUC. We are open to discussion.

Alan: I suggest talking with BPA. I didn't see the option of changing the test from looking at one homeowner in the societal test to looking at the entire population.

Debbie K: I thought we included a proxy for customer benefits.

Fred: We have in the past and with the OPUC agreement, when a non-energy benefit was large, clear and difficult to quantify, we can use a proxy. The OPUC hasn't come out with 100% support for it.

Dan: For the four gas measures that aren't meeting the societal test, could the installation be bundled? The duct sealing doesn't surprise me as most are in the heated spaces of the home. We could focus on cold space duct sealing to drive the test closer to 1, and also look at the whole environment instead of just at the thermostat.

Fred: It's plausible that warmer walls make it feel warmer from radiant heating. For duct sealing, the majority is in unconditioned spaces and we could focus on ducts in unconditioned basements. We've conducted two pilots on how to make duct sealing work; both have failed.

Ken: If we just had a utility cost test, would that change anything for gas?

Fred: What happens is most of the measures would pass, maybe not duct sealing. Consumers also see our incentive as a recommendation, and trust it. Under just the utility test, there could be pressure to fund measures with 30 or 40 year paybacks.

Roger: Do we study the resale value of the home with efficiency measures to one without?

Fred: We track data that we can find on what the effect is. But if the primary reason the home is selling is because of the energy efficiency, the end value is energy, and that's double counting. We need to know what other values drive the homeowner to act.

Roger: Should carbon be higher in the test?

Elaine: Right now, it's at $40/ton for 4-5 years.

Fred: It's a utility view to the cost.

Dave: If these are not paying back, why are we chasing them?

Fred: There are many perspectives. We are still trying to answer the question of what is too much for a payback. The iconic view of the market is people see efficiency as weatherization. And there are political drivers.

John R: I would like to see these measures include environmental quality.

Fred: We are now putting this matter forward to the OPUC.

Ken: The Governor does have a 10-year energy plan out; is that a document that this could be included in?

Fred: Cost-effectiveness probably doesn't fit there.

Fred described large electric customers with sites of more than 1 aMW and how Energy Trust funds them. These sites are included in SB 1149 funding and were exempted from SB 838. The difficulty is though we have two different statutes, in the market we have one program. We're not seeing an issue yet for Pacific Power, but are nearing the limit for PGE. If we hit the limit, we would have to reduce marketing to these customers. Decreasing marketing for some programs negatively affects other programs and customers.

Alan: Are we just seeing a bubble?

Fred: We expect to see a continual increase in the growth of large customers participating in our programs.

Debbie K: Could you allocate more of the SB 1149 funding to these customers?

Fred: We're operating on an agreement from a working group that keeps us at levels of funding for large customers comparable to where we were prior to the passage of SB 838. This

agreement could be reconsidered. We could get quieter on marketing and/or ratchet back incentives, and such actions may be damaging to building the program's relationships.

Lunch break at 11:42 a.m. Retreat resumed at 12:40 p.m.

Margie: Nancy Klass is a person who prefers to be behind the scenes, and today, we're going to put the spotlight on her just for a moment. Nancy will be retiring at the end of August. It is difficult to lose her, though it's an easier decision for Nancy. She and I have worked together for nearly 10 years. Nancy ensures that planning for events like this board retreat is done with incredible attention to detail. All logistics are anticipated and handled ahead of time with great professionalism. Whether it is the preparation of board packets, a committee meeting or an event like this, Nancy is a master at organization and delivery. She will be very much missed.

John R: It's been a real pleasure to have Nancy not only working on this event, but also doing such a great job in general. There is a calm kindness about her that is extraordinary.

Roger: I'll second that, it's very challenging to support someone like me. Nancy also has Eastern Oregon in her heart, and as someone else from there it is wonderful.

Alan: I appreciate the little that I get to see about everything you do.

Rick: I've enjoyed being prodded, poked and reminded by Nancy for 10 years. It's been a pleasure working with you, and you'll be missed.

Debbie: I second that.

Ken: To me your really notable achievement is that you were the first person to ever get it through to FedEx to leave packages at the gate so I actually get the materials.

Nancy: It's been a pleasure working with all of you. Some of you I've harassed more than others.

Margie: We have a card and a gift from the board and the management team: A gift certificate to Portland Luggage to facilitate your intended future desire to travel. Happy road tripping!

(Resounding applause ensued)

Margie: We will have another opportunity to thank Jason for his years of service; he'll be here soon.

Briefing: Energy Trust energy-efficiency performance – Fred Gordon

Fred: Back to the electric savings by year graph. Looking at the resources that are left that we know of today, they will allow us to keep up the pace. This curve is an artificial model, it could move in several ways, but if you count measures there are either a lot more out there that we don't know about, or we're running through the resource acquisition quickly. This is the current resource convention. Utilities need to know it's there.

We presented a study going back 30 years regarding the Power Plan, and more efficiency shows up over time. We don't know how much, how fast or how much it will cost. One year when we had a power crisis, CFLs became much smaller and cheaper. We can't forecast technology very well. We are discovering just as fast as we are using what we discover and that is difficult.

Achievable Electric Supply Curve: At about $0.12 and below these actions are cost effective. Mass-produced, low defect products are a resource, technology changes quickly. Gas is more of a challenge, given that many of the products out there aren't well tested and we don't know the reliability.

Bob: LEDs are expensive today. Do we have a way to determine what energy efficiency will be gained by switching CFLs to LEDs?

Fred: We are trying to work our way into that market. LEDs currently only make sense where CFLs don't because of the expense, but there are some niches where that works. By 2015 or so these will become much more commercial. Are they better than CFLs by 10, 20, 30 percent? We don't know yet. There are many forecasts, including those from U.S. DOE. All we know is that we have already knocked 1/3 off the residential load. We have about another 1/3 to save. If we save the same percentage of the remaining load the savings will be less cost effective than the first 1/3.

Fred continued with the presentation. Electric Deployment Curve with New technologies: We don't know which of these curves we'll follow, probably somewhere below the black line, but technology will change.

Forecasting Innovation: NEEA works for and with us. We provide them about $1.2 million of our money matching other grants. They work on commercializing new technologies, such as ductless heat pumps, all controls on light fixtures, etc. Their objective is to bring in 300 million aMW over five years.

Technology Testing: The efficiency industry isn't great at picking infant technology. Energy Trust is good at testing things in the field to see how they perform. NEEA is working with small heat pump manufacturers to provide more thorough feedback than the manufacturers' testing allows. LEDs have a great federal R&D effort; we don't need to do everything. The question is should we be doing more of this? Our programs can provide a vehicle for testing; we're running about 30 tests right now. Programs like OPower, help test the role of information tracking on behavior change and are also considered new technology.

Utility Resource Planning: Are utilities planning for the load we don't make go away? They build in the information we give them. We need to have a better discussion between utilities, regulators and us to understand some of the variable forecasts. We need to build the "maybe" supply curve. We haven't yet had the bandwidth to do this.

New Efficiency Resource Conclusions: We can't end uncertainty, but we can work more closely with utilities to plan for other resources with that uncertainty in mind.

Alan: We did a study looking at the achievable potential in various sectors. It was fairly generic. Is that still current, or does it need to be updated?

Fred: We update that almost constantly. It's built on a housing stock model. Since we're getting to a place where it might start impacting our volume we're keeping close track.

Alan: In theory we could reach a point where we've reached almost all cost-effective savings. Do we keep going to capture non cost-effective savings?

Fred: Unless something changes, we're required to capture cost effective savings.

Dave: What's the percentage of houses this is based on? Does it include commercial, industrial?

Fred: This is built on stock models, and if you're not building a lot more houses, what can you do? There are no binary models. We've been reluctant to get into those other industries.

Dave: There is more room in those other industries.

Fred: We do our best to look at each industrial Standard Industrial Code (SIC) differently. We're differentiating commercial by about 12 building types. We co-sponsor regional building stock assessments. Industrial is the hardest because each factory is unique and proprietary.

Debbie: The last assessment included quite a bit of potential identified in commercial buildings. We really look at each sector individually. The review was pretty comprehensive.

Fred: The sector strategic plans are a good place to look at that. There are some things we know are there but technically we don't know how to address them yet.

Ken: How much of this is based on the Council's work?

Fred: We tend to hire the same consultants the Council hires, so there tend to be massive parallels, and we check those.

Nick V: Let's take a moment to discuss with the board any concerns you have based on what you're hearing. Where do you need some clarity?

Debbie: My take: you already have your supply curve of known technologies. You could develop a curve that would include other potential technologies in aggregate that might help shrink the total uncertainty.

Fred: We could take all the things that could happen in the next 10 years and divide it by three. Zero is a biased number. Utilities can deal with uncertainty with everything except efficiency.

Debbie: We can put probability assessments on things.

Alan: We can look at scenarios. One with no new technology, one with moderate, and then you can track to see which track you're following.

Fred: It would be nice to build some scenarios, but historically it's been so spasmodic that it is difficult to see which track you're on. We're looking at whether more advanced forecasting models will help us, but it's a bit scary.

Alan: That's exactly where scenarios come into play.

Ken: If you have a scenario built around your most deeply dropping line, what does Energy Trust do in that circumstance? It can allow you to plan in advance so you're not quite as unprepared.

Fred: For example, we look at what happens in 2014 when so many standards change and nothing comes along to replace the old measures. What would we do? What if we find three more big things? The curve might be steeper.

Dan: There is some data that is still off limits to us, and perhaps we could ask for help from governments to get access to that, like for big customers and the very low income where we have little penetration.

Fred: We could get some of that, and we are considering approaches to lower income.

Dan: Or it could be too intrusive and we scale back. The advantage of scenario planning is that it allows you to have, “if this, then that,” situations so we have the ability to prepare.

Ken: This graph shows the deployment curve for new tech. Are you speaking only about technology, rather than programs?

Fred: Programs including financing, outreach programs, etc., is included in the 85% we think we can reach under the curve. With certain programs like OPower it would actually change the curve. Slide 7 – The green curve is the stock model. The new tech stuff could push the curve upward.

Dan: To be specific, if you produce more ductless heat pumps you get more savings. If they don’t come or come slower, each new thing that gets invented pushes the curve out.

Fred: If you do it with strategic energy management, that’s under the curve. Our method for the savings we’ve identified is under the curve. The things we know how to do are becoming fewer because we’ve done a good job capturing savings. New stuff will come; we’re just having trouble analytically identifying new things that will result in a straight line.

Roger: I am involved in the Western Electricity Coordinating Council, which is doing scenario planning for the entire western grid. We hired a consulting firm. This process is interesting because it replicates the things we’ve been discussing. Wanted to mention it, it’s not right yet, but they’re looking at technology as well as economic models.

Fred: Those kinds of models tend to be 50-year models.

Roger: Yes, this is a 50 year. What happens if distributed generation really takes off? It really changes the model. This stretches out the limits of the imagination. I’ll keep you updated on the study.

Fred: We are exploring new things. We’re looking at approaches like the Path to Net Zero initiative. But we can’t test everything, we just need to prioritize and move forward as quickly as we can.

Dave: It seems like there are more resources needed to explore new technologies.

Fred: We are exploring that in conversations with NEEA. Is this something we want to push? We would have to trade funding initiatives to save energy in the next five years to look for technologies that will benefit the following five. Our primary metric for success is essentially annual. Market transformation is part of our mission, but we could push a little more on working with utilities to plan and emphasize new technologies. New staff changes helped us with that. There are probably $3-$4 million going into these 30 or so pilots, roughly. Is that the right level of effort? Most are marketing, bundling, packaging and selling incentives. But we also have a few technology based pilots.

Alan: We need to remember that we're dealing with ratepayer dollars. We need to work to benefit the people providing the dollars. Our focus has to be them, not on the rest of the country or the world, including with new technology.

Fred: Our criteria: can someone else do that, and why here?

Alan: And will the benefits accrue to the people funding us?

Fred: And does the cost look like it gives us a good chance of getting to the result? We look at those with a big potential local impact.

Jeff: It's not completely clear to me what the benefits of the long-term resource planning are to Energy Trust.

Fred: Good question. We partner with utilities to do integrated resource planning. But they don't build things. In the long term, integrated resource planning is how our funding is determined. A question about 2017 doesn't matter now, but it's going to matter fairly soon.

Jeff: So in a sense it's a cost-effectiveness measure, zeroing in on what's going to pay off in 2017.

Fred: We need to show that we're doing all we can to help utilities plan resources, ensure they fund us, ensure we're doing good work, etc.

Jeff: Slide 39 – The size of the wedges should be governed by where the opportunities are. If there are a bunch of opportunities that we know are out there but we can't get to them, does design and development become more important than marketing and outreach?

Fred: We're going after smaller markets and more incremental measures. Marketing work has to continue if we are to find the next increment. That results in diminishing returns. We have to innovate on programs *and* marketing from a program ambition perspective.

Jeff: What if there's nothing to be gotten because the tech isn't available? No amount of marketing will produce savings.

Fred: This is not about it all going away, it's about velocity and volume. This curve envisions that Energy Trust in 2020 will be as big as we started, but not as big as now.

Ken: If we're constrained by tech, I'd support Margie working with NEEA and potentially also Bonneville to focus more on emerging tech innovation. I would support reorienting some of their money to focus on emerging technology, which is where our need is also. I see them as the group in this region that is really set up to do that.

Fred: NEEA is the center of emerging technology work in the region for electricity. We meet with them frequently and support their investments.

Roger: You mentioned behavioral issues. Can you elaborate on what we're doing there? There is a whole academic discipline on how do you convince people to do something about climate change. Are we keeping up with those analyses?

Fred: We didn't distribute the list of the 30 pilots, but we want to bring you examples that are pertinent. We are very successful in industrial right now in strategic energy management, which is behavioral. NEEA got that work started, we replicated it, and we're knocking it out of the park.

We're having some success on the commercial side as well. For example, we saved 2/3 of a megawatt with a single pilot initiative last year. The homeowner side is where we're scratching our heads a little. We're trying OPower; it's on the cusp of cost effectiveness, though there are some complications in running it. We haven't really found a killer app for residential. It's a bit of a struggle.

John R: One way we are useful to utilities is avoiding construction. We haven't talked about peak load. Are we looking at ways to shift load to off-peak times?

Fred: That issue is the responsibility of the utilities. Demand management is important, and there have been successes in incenting demand shifting with pricing. Good success in that area has been three years out since I got here in 1980. We study how efficiency measures reduce peak, and our savings are generally on peak loads.

Rick: If we can't crack this, isn't there a risk that both transmission and generation are going over, resulting in money loss?

Fred: There is a possibility of a large problem, and the OPUC has been pushing to prepare for that, but the probability isn't incredibly high.

Rick: There are reasons to ensure that we are taking a good look at it. I'm surprised that peak under some scenarios isn't expensive.

Fred: We haven't developed expertise on this, since we've been told it's beyond our scope. We've had open conversations, but it's been assigned to the utilities.

Roger: It is out of our scope. The solution is probably operational reform, not building more transmission capability. Reserve sharing is a good solution; sharing the load over a wider geographic area. It can create a more holistic solution to the problem.

Fred: We think there are demand side opportunities, though the discussion has been at a pretty hypothetical level.

Jeff: You noted that NEEA is electric, not gas. Is there any kind of gas equivalent of NEEA? Is there anyone we can work with on that?

Margie: NEEA has been interested for a couple years in looking at a gas market transformation initiative. It didn't get launched at the level NEEA would have liked. The potential to expand and encompass gas makes some of the utilities nervous. Is this the right organization to do this kind of work? Could NEEA broaden their mission? Is there another alternative? It hasn't moved forward as fast as we'd like, there is still a possibility that the dual fuel utilities on NEEA's board could pilot some efforts in gas market transformation.

Jeff: What's the probability that that might happen?

Margie: I guess a 50/50 chance that NEEA will launch something along with us facilitating and engaging our gas partners. I see more advantages than not. It's a threshold kind of question. There isn't anyone nationally more engaged than NEEA on this, so they're the logical entity to expand and move this forward.

Dave: Is there a need for more programs, or more time to allow existing programs to take effect? There has been good progress; why do we need to create new ones?

Fred: It's more about developing new initiatives in existing programs. Generally the savings remaining are in smaller buildings, and are more expensive to get. We're working to expand into more markets with more tools. We're pretty good with upper income homeowners, what about more from the moderate income?

Ken: Process question: will there be a time where Fred comes back and updates us on what he's heard?

Debbie: Isn't our process that staff comes back with things to incorporate into the future plans?

Rick: We have a recap discussion tomorrow morning.

Fred: You get to see what's reflected in our next action plan and budget.

Margie: In addition to the note takers, management team also takes notes and tries to capture ideas, and then we do our own distillation of those ideas. This is the point where we start thinking ahead toward the next strategic plan, next year's budget and our two-year action plan. We officially kick off development of these documents starting with this annual retreat.

Break at 1:55 p.m. Retreat resumed at 2:10 p.m.

Nick: With a little extra time here, let's give everyone an opportunity to speak on what you've heard so far that carried the most weight with you.

John R: I see the cost of some renewable resources, especially PV, plummeting. I see the price of efficiency rising. In the face of these two trends, I'm thinking relative to the 10-year plan, it may be that our charter needs rethinking.

Ken: I'm understanding better the decline of the remaining potential out there and acknowledge how great that is. I never thought I'd see the day I'd see that on the graph. Also, I recognize the necessity to continue to push hard in the emerging tech space.

Rick: The job is only getting harder, and we're going to have to scratch more to get important things done both in efficiency and renewables. "I'm kind of a born-again peak shaver."

Roger: I saw somewhat of an imbalance in our original charter. Opening up the charter is scary because it goes through the Legislature. Distributed generation, particularly PV, gives you a hedge against problems. It also helps with peak shaving.

Jeff: There could be a significant disconnect between the proposed energy-efficiency acquisition in the Governor's plan and the achievable level we see here.

Dave: It's an interesting time to join the board! Going into this difficult time this could have an effect on the organization's morale because those energy savings could drop. There needs to be a role for Energy Trust to continue to fight for those smaller savings.

Alan: This is the time more than ever when we need to understand the costs and benefits, and what is achievable. We need to understand what is possible with both renewable and energy efficiency.

Anne: I hear all sorts of future demands, but don't see the demands on the chart. We're pushing several technologies, but I'm curious what that's going to do. There's a lot of energy around development of alternative generation around the state. I see opportunities to partner more with

alternative generation, such as wave energy, which will help us remain competitive and attractive relative to other states.

Julie: We need to plan for various scenarios. I'm not worried about that. Energy Trust has moved quickly, thinks quickly, reacts quickly. I don't have the feeling that we're in trouble. One of the values that we have is the ability to have a captured market that we can use to test tech. We also have great access to people at PSU, U of O and OSU to help us with testing.

Debbie: I'm enthusiastic about our ability to test things in the marketplace with NEEA. We should leverage that. Coordinating with Bonneville to avoid duplication of emerging technology efforts would be good. If measures we've been doing aren't cost effective anymore, should we be promoting them? We need to continue to educate consumers about the payback period of various measures to ensure full understanding and that we're being transparent in our processes.

Bob: One of the issues that came up is that I hadn't realized that where we are as a state is subject to what next technology and measures will arrive. That is driven by someone other than Energy Trust. The Governor's goal is to cover 100% of the additional demand over 10 years with energy efficiency. Is that an attainable goal? Financing is another large piece to look at. With the federal government vacating some of their programs, we could be the victims of that, and good or bad we're not holding the cards. We can't fully replace their financing and incentives for renewables. One of my hopes is that we can educate legislators on what happens when we remove incentives.

Dan: In the governor's report we're invited to participate more broadly. Let's not think like we're the electricity or natural gas trust, but Energy Trust. What can we do to help put money back in people's pockets and make things better?

Joe: Today has highlighted how successful we've been, and what challenges we face going forward. I think even though it's tough, there are great things we can do to make things better for the citizens of Oregon.

Margie invited Jason Eisdorfer to join her in front of the board.

Jason: I've only been gone for a month. Since then you have two new board members, and someone allowed Nancy to retire. I was on the board for over 10 years, and resigned a month ago. I'm now the OPUC utility program manager. You can use me along with Juliet and John S. as a connection at the OPUC.

Margie: We have a real gift and a fun gift. I will always remember how thoughtful and insightful you are. Jason identifies concerns and how to manage them. He thoughtfully wrings his hands and then comes up with ways to proceed. I have relied on you as a person who brings deep and genuine commitment to these issues and one who has demonstrated tremendous leadership. We're glad you're still going to be part of the fold, and we know you'll still worry.

Margie then distributed buttons with an image of Jason looking like Alfred E. Newman of Mad Magazine. The saying on the button reads: "Yes, me worry" and includes the dates of board service for Jason.

John R. read a quote from Jason's retirement letter: "Nothing I write here can do justice to the pride I feel in being a part of the birth, growth and eventually successes of the Energy Trust. The Energy Trust has met or exceeded all my original aspirations for it and is truly a jewel of an

asset for Oregon, if not the nation as a whole. The accomplishments of the Energy Trust are nothing short of amazing and ETO staff members have become trusted national experts in the clean energy world." You are going to be missed Jason.

Ken: Sixteen years ago Jason and I made a grand bargain, and it worked out well.

Rick: I've enjoyed every time we've had a chance to get together on these kinds of issues. It was fun to figure out how to put a round table into a square hole.

Alan: I'm impressed that when we looked at issues we typically saw the same problems and solutions even though we have very different perspectives.

Julie: I have to remind myself that I'm not giving a eulogy. We all started to work on this 16 years ago with SB 1149. Jason and I couldn't really stand each other.

Jason: I've loved you from the first day.

Julie: Jason predicts my future. He's had his children just weeks before me; he left politics shortly before I did. I wonder where I'm going now that he's left the board? You are a crisp and sharp thinker, great at strategy, and I've always really appreciated you.

Roger: I first met Jason when he testified to the OPUC and he was always telling us what to do. Now that Jason's a regulator we should be worried because not only can he complain about us, he can actually tell us what to do.

Debbie: It's been a pleasure working with you, and I've learned so much from you. Who's going to be here to pull us back when we're going over the edge? He grounds us in the history of these issues and has a wide perspective. I appreciate your point of view. We're going to miss you.

Dan: I appreciate the subtle touch when you come up with the problems and offer the risk assessment. It's been a great counterbalance to my wild ideas.

Margie: We have a real gift and a card for you.

Jason: I'll be around and to the extent I can cover your back or push for you I will. But most of all, thank you to everyone who has worked to make a difference with Energy Trust. There are nothing but great things in the future for Energy Trust.

Energy Trust consulting assessment

Margie: A year ago at this retreat I proposed that we explore having Energy Trust package and promote some of the skills and capabilities we've built and try to market them by creating a small consulting practice. As an organization we have dedicated dollars, and have a defined structure for spending them. The question arose: "how do we explore consulting without spending ratepayer dollars?" Five PSU graduate students took up this challenge on our behalf at no charge, making it a special project. They're back today to present their extensive analysis and results. We asked them to think about what we could offer and to whom, how we could package and market our products and services, and what we could charge. I am hoping the board will listen to the presentation and think about whether we should go further with this idea or not. You may have questions about the research findings and want us to seek further

clarification, think of other options, or not take further steps. If we moved forward, this would require some different energy, commitment and resources than what we currently do.

Introductions of PSU students:

Nichole Desmond, PSU: Thank you for having us. I'm Nichole Desmond. We're all graduating from the PSU MBA program. I have a software security background before PSU. I've done some renewable energy work in Central America, and have studied energy in school. Peter Lindburgh will also be presenting.

Peter L, PSU: I have a background in history. When I graduated I started working about 50 feet from here making beer at the Edgefield Brewery. I also spent a year working for Kuwait Petroleum.

Ben Ludwig, PSU: I have a background in archaeology, and went back to business school to work in the energy industry.

Maty Sauder, PSU: I came from a strategic planning consulting background, primarily public health and environmental conservation. Ryan Owens couldn't be here today.

Presentation: Market Analysis for Consulting Services Concept

Peter L: Project purpose: There have been inquiries coming in to Energy Trust from throughout the country and the world to learn about the third-party delivery model and how it developed its expertise. At the outset of the project, it was clear that Energy Trust must be careful when considering a consulting practice, remaining focused on the appropriate use of ratepayer dollars and fulfilling its legislative mandates.

Methodology: A collaborative approach with Energy Trust, continuously tuned and improved. We interviewed 40 external executives and six Energy Trust staff. We also did extensive secondary research to test the objectivity of the interviews.

Phase 1: Industry and market analysis

Phase 2: Market segmentation

Phase 3: Findings and recommendations

Maty: We initially did six internal interviews to understand the perspectives of the people who would be implementing this project. We created a services matrix, and distilled offerings into three service lines: Situation analysis services; Organizational development services, building a full organization; Program development services, the "teach a man to fish" concept.

At what depth should we offer those services?

- Best Practices presentations
- Strategy services
- Architectural services as in program or organizational design
- Implementation support services. Something it is clear that Energy Trust is not interested in this at the moment

Findings:

- Energy Trust is widely respected by those knowledgeable about the organization.

- Despite the strength of Energy Trust's reputation, political, organizational and geographical differences will be a substantial barrier to market entry. There are worries about whether Energy Trust would have relevant knowledge in offering services in different states. There is also concern about whether the nonprofit model would even permit this kind of effort.
- Even at a small scale, providing consulting services presents a range of immediate challenges to Energy Trust's managerial and organizational resources. It may be hard to marry the consulting model with a program management-focused organization. Energy Trust would also need marketing, business development, infrastructure and full-time staff to support a consulting effort. Revenue streams and expenses would also need to be kept separate from the core organization.
- The domestic demand for situation analysis and organizational development services is very limited. Market segmentation data showed few opportunities, with limited demand and limited funding available. There are also firms providing this kind of analysis for free as a loss leader.
- A strong domestic market exists for program development services, with or without implementation support. However, the industry serving this market is very competitive, and is also consolidating quickly into a few large firms. They're getting better at the work, and getting better at doing it at a relatively low cost. It is an interesting market, but perhaps not a good fit for Energy Trust.

International research: We did not have as much time as we'd like to examine this, as we came to the international portion of our research fairly late. However, we did find some excellent resources to interview over the last three weeks. There is certainly an opportunity to explore this area in greater depth.

- There is a greater level of enthusiasm for all of Energy Trust's potential service offerings among those knowledgeable about international opportunities. The excitement is for an integrated package of all of Energy Trust's services rather than individual stand-alone services. Alternative energy markets are less mature than in the U.S., and Energy Trust is looked upon as a resource that could help others build an organization from the beginning. We were really only able to scratch the surface on this front. It warrants more research to explore this market opportunity.
- There is the potential for partnership with intermediaries in the international market, which could create low-effort and low-risk means of market entry. These could help facilitate new relationships and partnerships with other organizations in order to help Energy Trust plug in quickly and inexpensively into existing markets. We've provided a list of all organizations and individuals who expressed interest in partnering with Energy Trust to Margie, and hope that will be of some benefit going forward.

Recommendations:

1) Forgo the idea of offering domestic situation analysis and organizational development services.
2) Invest in additional research on international market demand for all three service lines.
3) Host a formal internal discussion about the level of investment, effort and political risk Energy Trust is willing to take on to support consulting services.
    - Part A: If internal discussions lead to a "go" decision on domestic program design or international opportunities, work with peers in the industry.
    - Part B: If a "no go" decision, we would suggest considering other strategies to achieve the goals that were foundational to the consulting concept.

Topics for discussion today:

- What is the consulting concept's fundamental value to Energy Trust?
- Does consulting fit Energy Trust's mission?
- How does political risk fit into the consulting concept?
- What operating considerations exist?
- What is the minimum seed funding needed to launch a consulting practice? Where would this come from?

Alan: I don't have a warm feeling about Energy Trust consulting. I think the analysis you did confirmed that domestically. I have done business in Asia, and I can tell you that doing business there is immensely more complicated than doing it domestically. I can't conceive of Energy Trust doing that.

PSU: There is a great deal of interest in Latin America as well.

Julie: You seemed disappointed that the results didn't come out as you thought we wanted. Last week on Science Friday there was an interview with a researcher who had completed a long-term research project that proved many existing hypotheses wrong. It's not sad news when that happens. We're not disappointed by your results. Some of us are affirmed. I like the idea that maybe there's a different business model, perhaps enabling Energy Trust staff to consult externally independent of the organization. I appreciate you bringing up the political constraints too.

John R: Every time I see a map of the states showing conservation potential there is a swath in the middle that shows no interest at all. Did you find your interviewees in that area to be among the least interested?

PSU: One interview in South Dakota boiled it down to being just a political issue. Regardless of how much sense it made, he didn't see them ever adopting a model like Energy Trust. Others in that area were public entities. They were interested, but had little money to invest in that kind of opportunity.

John R: I hate to see the opportunity lost in an area of the country that so badly needs it.

Dan: When exploring international opportunities did you find anything interesting from Japan?

PSU: I heard one comment about Japan, which was, "Don't go there, it's not viable." Thailand, China and Vietnam were cited as options, but not Japan.

Dan: Japan's situation changed violently a year ago, and they suddenly have an appetite for renewable energy.

Ken: On page 16 you said that, "Canada said…," and I didn't see a person cited named Canada.

PSU: That was a quote from a consultant who did business in Canada, who was referencing Canada generally. There is evidence that some areas of Canada are pursuing efficiency to facilitate selling power to the U.S.

Dan: There are some sister city programs, and other deep relationships between Oregon and Japan, and those can be used as introductions to open new doors for new opportunities.

PSU: The sister city avenue is an interesting possibility. That may be an example of suggested demand, where we've had trouble actually unearthing the opportunity. Knowing there's potential doesn't mean there's opportunity to get it at the level of investment that is available to you.

Dan: Good point. What would we want to get back if we opened that door?

Margie: The third-party model has generated a lot of interest. We are continually asked how we are organized. I usually respond to those inquiries, which focus on the same core topics independent of the visitors: How did we come into being? How are we funded and structured? What recommendations do you have for building an organization like this? History, policy and funding factors have to align to make this work and local leadership is key. Having worked with PSU students on this research, I think we can be very reactive in this space. We may have or create an opportunity for one staff person to take a sabbatical to go consult and learn some new things to bring back. We can work in a collegial way with external entities, and if a project should arise as a result we can assess the opportunity for our staff to take time to explore it. If we're open to the opportunities, assess how we could benefit from them, consider the staff implications, I think that's the minimum we could take away from this effort. The one big question is do we pursue looking into the international piece further? I believe that there might be some opportunity there, and that's where my primary interest was at the beginning of this effort. Maybe it's something that is explored more by semi-retired or part-time folks. If we want to dig deeper into that opportunity, it might be interesting to have PSU do another project to dive into the international question.

Roger: I'm on the board of the Regulatory Assistance Project, and have done some work in China. We have assisted other regulatory bodies with best practices. We started as a domestic organization. Now we're 75% in China, Europe and India. We're now funded fully by Climate Works, an umbrella organization. It's not pure consulting, more advisory, and is all done through foundations. It's a different business model than we've been discussing. There is a tremendous demand for this kind of work at the international level. It often involves working directly with governmental policy leaders.

Alan: If we have a "no go" decision option, I think we'd be best to spend our time there. One goal was to support staff retention, but consultants are often hired by the organization for whom they consult.

Debbie: I want to commend the group on your great work. I appreciate the segregation of the different kinds of work. That was very useful. This has helped clarify some of the issues in involved. The market research was good. There might be other ways to go about this, such as letting people take a leave of absence. I think it would be fine to continue to pursue some of these other research opportunities, including some HR models. One study could be international options, another study on staff retention.

Julie: I think what you have, Margie, is a good to great problem. You've moved the organization so much that you're a great model, and you're going to be called by others for advice. I like the idea of taking a look at HR policies. It's going to take a lot of convincing for me to be on board with developing an international consulting arm. Since you're our leader, we're going to look to you to deal with what happens in the next 18 months here in Oregon.

Dan: I want to echo some of Debbie's and Julie's ideas. If someone wanted to pay Fred $200,000 to consult for them for six months, that might be an interesting one-off. Individuals would then come back with deep expertise on that request.

Margie: I definitely see the richness of this exchange. I spent time abroad. Much comes from that kind of cultural exchange, and that helps us learn and adapt here.

Dave: It seems like there are two different things: the international issue, and the load requirements of being the good to great organization. We should begin to formalize our response to those kinds of requests. There may be some opportunity to look for grants to package our services and that could be an avenue for growth into an international consulting organization.

Rick: Your analysis has been very helpful. You did good work in a short period of time. I'm hearing that the board isn't ready to enter into this in an institutional way. We have discussed the benefit of this kind of information exchange. Bottom line, if there is a really interesting opportunity that looks like it would have those exchange benefits, it would be more interesting to consider on a case-by-case basis rather than putting a formal process in place.

Margie: I agree. That's what I mean by reactive. If we're open to that it might come our way, and we could bring it back to the board. We want to create more opportunity for staff to gain knowledge. We have a very flat structure currently. There is more growth opportunity in experience than movement within the limited hierarchy.

Roger: In China we can get stuff done there that we can't here because they don't hold public meetings. Unlike India which is close to a democracy but not very functional.

Debbie: There is an opportunity for junior level staff to do some of these external info presentations instead of just Margie.

Margie: I agree, we have done some of that and should do more.

John R: Next time this comes to us it would be helpful to have a list of who has asked about things like this, when they asked and what they asked about.

Jeff: I am profoundly skeptical of any for-profit tactics.

Bob: Energy Trust of Oregon is the title, but there are still inequities that exist within Oregon. An analysis of the groups we serve and those we don't, it's a breakdown of those who have and those who haven't. Fred's presentation talks about only part of Oregon. We have the opportunity to work toward being Energy Trust of all of Oregon.

Margie: I'll follow up on providing the data to the board on where the inquiries have come from. When we initiated this PSU effort, the faculty sponsor there said there are three ingredients to a successful effort like this: something for the University, something for the participants, something substantive for the organization. We had all those here. Foundations and grant money provide other sources and ways to explore some of these opportunities, including packaging of what we learned. Grants would give us some freedom that we don't have right now with our existing funding sources.

Alan: You didn't mention the HR strategy.

Margie: Yes, I'm very interested in that.

Roger: There was mention of interest in collaboration with Energy Trust. It takes years to develop international relationships. By collaborating with organizations which have those relationships you can overcome some of those barriers.

John R: I hope you won't forget the delegation we sent to Thailand six or seven years ago, and what impact it had.

Peter: Net metering!

Margie: I have a gift for our friends. Throughout this project it seemed a bit nebulous at times – kind of hard to imagine. It was dubbed, "The Unicorn Project." So we have buttons with Unicorns on them that say: "Thanks to PSU MBA students from Energy Trust of Oregon."

End of student presentation.

Nick: We have one final exercise that John will explain, but I believe we have a four minute video first.

Margie introduced the 4-minute video BPA commissioned in celebration of their 75th year anniversary. The video is being shown as inspiration for the writing assignment John Reynolds will describe.

John R.: Back in the early years of Energy Trust we were ambushed by the acting executive director at a board meeting in 2001 who made us write down what we wanted to see Energy Trust accomplish by 2012, in its first in 10 years. Today, we want you to write your letters about where you want to see us being in 2022. We would like to give you the opportunity to present your letters at a future board meeting if you'd like. In the meantime, please write a rough draft today and submit it tomorrow.

Bob: Is this a time capsule document?

John R: The value of this exercise is that it gets us back up to the 50,000 foot level.

Ken: Is this what we want or what we think?

John R: Whatever you'd like. Please submit the letters to me on paper or electronically.

Day 1 adjourned at 4:30 pm.

Friday, June 8, 2012

Board members present: Rick Applegate, Joe Benetti, Julie Brandis, Ken Canon, Roger Hamilton, Jeff King, John Reynolds, Debbie Kitchin, Dan Enloe, Alan Meyer, Anne Root, Dave Slavensky

Board members absent: Bob Repine (Oregon Department of Energy special advisor), John Savage (Oregon Public Utility Commission ex-officio)

Staff attending: Margie Harris, Sue Meyer Sample, Elaine Prause, Amber Cole, Steve Lacey, Peter West, Bradford McKeown, Scott Clark, Debbie Menashe, Hannah Hacker, Nancy Klass, Kacia Brockman, Betsy Kauffman, Thad Roth

Others attending: Lauren Shapton (Portland General Electric), Juliet Johnson (OPUC)

Workshop called to order at 8:36 a.m. and agenda review – Nick Viele, C3 Strategy

Recap of June 8 briefings and discussions – Board

Board members each recapped the first day of the workshop.

Ken: My one takeaway was the declining capability over time, a huge issue operationally and politically. I realize we're at a point where it's hard to keep accelerating savings, and we need to have a level of persisting savings over time.

Alan: Agree with Ken, plus it seems the Governor's plan has a higher plan for us than we do. I see a collision course with declining resource and new load growth from electric vehicles.

Roger: The world is going to be very different in 10 years and it will be difficult to know where we should be. The message I took away is we should be very flexible and resilient. Especially with climate change and the fact we don't know how the world will react.

Rick: Energy efficiency has always been difficult since the start, even when I was at the Power Council. But efficiency and the years ahead will be complicated in terms of what we should deliver and the politics, the rhetoric will get out ahead of reality and we'll have to deal with that.

Jeff: There might be significant advantages to expanding the footprint of the organization to the entire state and allowing more flexibility to go where you need to meet the goals. Potentially, you could expand the scope fully to all electric and natural gas customers. I'm concerned there may be a disconnect between the 10 year plan and the resource plan.

Julie: Our mission might change, and who Energy Trust is in 10 years may be very different than who we are today. I was moved by the BPA video shown yesterday, and the history of energy in our region and rural electrification. We talked about technology yesterday and how it can be applied to energy efficiency. The flow of information is so much better today and we have the ability to educate policymakers. And this can change how they think. I'm optimistic about how that may change our mission.

John R: Information flow is a good point. I see "intelligent efficiency" as both information sharing and load sharing, as systems coordinating. I see that as necessary for the electric car.

Debbie K: There was a lot of valuable information yesterday, thank you to the staff. It's important to connect with people, and have a vibrant, efficient and green economy. There's so much potential. I'm struck by so much potential information and analysis and what Energy Trust can bring to the conversation through our knowledge and expertise; in service to having a better, thriving economy with strong institutions. It's not about the technology, it's about community.

Dan: We're at a point where we can really analyze the "ideal." We need to identify the ideal even if we can't get there. The concepts that came to mind yesterday, and the Governor's plan included many concepts, too, tell me all generation in the future should be renewable. In the conservation world, the "ideal" would be to fully retrofit all buildings, to use our incentives to drive our trade allies. Our best ideas are 100% installed in all Oregon houses. Like plug-in hybrid electric vehicles using less gas, we can make choices that keep our dollars and jobs in Oregon. We need to think about opportunities, what the "ideality" is for Oregon and then we can

look at the gap between reality and ideality to make choices and use communication techniques to influence the game.

Anne: There's a lot of work to do here, it's exciting. We need to think outside the box, use our voice and help move the economy. We need to show leadership.

Dave: We need to keep our focus and have common goals. From energy generation to peak load sharing to a different focus around renewable energy, we're missing a common goal. We need to move toward a common goal and we'll have greater success. From the BPA movie, it struck me that we have a lot of plentiful energy, which people don't apply the full value to. How do we change that perception? Also, we have a voice in the state but let's make it bigger.

Joe: Let's expand and diversify to be successful. We need more people to understand that by saving energy, you save money on your bills and direct that money back into the economy. We need to make the link to job creation stronger.

Presentation: Renewable energy programs – Elaine Prause

Elaine described the objectives of the presentation:

- Build a common understanding of Energy Trust's current role in renewable energy
- Discuss changes we've seen since last June that shape our short-term plans
- Discuss our role, plans and opportunities

Elaine said that in 2010, Oregon ranked third in terms of renewable energy generation. The majority is hydropower. We are a state rich in renewable resources.

Rick: This ranking is based on our historical investment in hydro. If you drew a line today, where would the ranking be? How good are we from the investments made in the past 10 years?

Elaine: You're right, and your question is good food for thought.

Elaine continued. Oregon is a hub for renewable energy development, manufacturing and consulting. We have successfully attracted a cluster of solar manufacturers. In the past 10 years, renewable energy development has increased significantly because of policies, regulatory and market factors. Two of the main drivers are the renewable portfolio standard, where investor-owned utilities must meet 25% of their load with renewable energy by 2025. Consumer-owned utilities have a similar and lower requirement. The second driver has been state tax credits.

Elaine showed a chart of how Pacific Power and Portland General Electric met retail load in 2010. The data was from the Oregon Department of Energy website, showing various mixes of coal, natural gas, hydropower, wind, biopower, geothermal, waste and market purchases. Elaine clarified the fossil fuel purchases are for the Oregon only customers of Pacific Power. Roger mentioned looking at the renewables in the same way, what portion of those renewables are in-state? Elaine also said the plot doesn't show the renewable generation in-state that's not being used to meet in-state load but is going to other states.

Elaine described the key issues to be discussed today:

- State tax credits are no longer as attractive. The legislative changes mean they are very competitive, uncertain, with a much lower available budget and smaller cap per project. This has led to some developers going to other states.

- Utilities expect to meet renewable energy requirements through 2019 without any major, new investment in large-scale renewables such as wind.
- Transmission and grid management encompasses an area where we aren't the expert. However, we do know transmission limits, the associated capacity constraints and ways to mix intermittent resources with a traditional grid system. These issues are affecting smaller-scale renewables that we support.
- Influences of the others states including California which currently has an RPS of 30% and Washington State's policy for renewable energy certificates.

Elaine described Energy Trust's role is to serve projects less than 20 megawatts and they must be new renewable energy projects. Prior to SB 838, we invested in larger-scale projects, including three wind farms. Starting in 2007, the focus shifted to smaller scale due to statute. We pay above-market costs of projects harnessing biopower, wind, hydropower, geothermal and solar. We have a fixed funding mechanism, 17 percent of the public purpose charge, which raises approximately $14 million in annual revenues. We support all five renewable technologies to help develop markets, especially non-solar markets that don't have another source of funding and assistance. When you hear "distributed generation," that's what we do, which means the project is close to its load and the generation is staying close to the community.

Alan mentioned SB 838 hampers our renewable energy programs because the cost per aMW is the same whether it's a 50 MW or 10 MW project; however, the economic benefits of the 50 MW project is so much more and small projects need more help.

Elaine said that we need a mix of projects, and clarified that though we can serve projects up to 20 MW, we typically fund projects between 3 kW to 200 kW for solar, on up to 3 MW for the other technologies. Typically, projects are under 10 MW and most are solar. Also, $20 million in project costs is the most we will ever see.

Elaine said over the years we developed two approaches to supporting renewables: a standard approach for residential and commercial solar, and a custom approach for the other technologies and larger solar. The standard approach also includes building a Trade Ally Network and training quality installers.

Elaine transitioned into what has changed over time. She showed a chart of acquired generation by install date since 2002, plotting only projects 20 MW or less. Summing through 2011, it equals about 13.5 aMW. She described that starting off, there's smaller generation as we built the programs and Solar Trade Ally Network, and learned how to work with the market. Starting in 2009, solar took off. Hydro starts showing up as we began working with irrigation districts. Community wind and geothermal represent a small piece of the pie. 2012 is our peak year due to the Business Energy Tax Credit, and the 2012 forecast shows projects that locked in a Business Energy Tax Credit pre-certification and must be completed by the end of 2012. The dip in 2011 was due to project shifts into 2012.

John R: I'm disappointed in the lack of presence we have in community wind. Maybe that's because the projects most likely to be interested are already served by consumer-owned utilities? Or if they are in Pacific Power territory, it reflects a mind-set of relying on the utility?

Roger: You're right in part, it has to do with where the wind resource is in Oregon, namely a lot on the coast and very little in the Willamette Valley. There are visual issues and bird concerns when you go out to the Gorge. People don't necessarily like to live where the wind is blowing.

Joe asked about the results from a recent wind study in Coos Bay.

Peter: We did participate in that study. Siting is the largest issue on the coast. With community wind, you need the community to lead it, we can't. We tried for four years to do community wind, a concept that came out of the Midwest. Geographically, utility-scale wind is a better concept and community-scale wind was competing. Solar is a good community resource. Community wind has above-market costs, and the community must lead it.

Ken: There isn't a demand for community wind and you can't force demand.

Roger: Visual impacts are also a difficult element to get around.

Peter: We also do community generation through biopower at wastewater plants and dairies and hydro on irrigation districts. This is all distributed generation. We go where the customer will take us, we meet the customer where they are. The concept with community wind is that it's owned 100% through the community, either through the city, county or through shares. We have not moved such projects because the community hasn't taken them up.

Dan: Is there anything in our charter that would prohibit us from buying a piece of land and installing our own wind turbine?

Peter: We are project focused on above-market cost for renewables. If one can draw a connection between Dan's idea, that would be the board's call. A question back to the board, we are in the conversation for solar, bio, hydro and geothermal, and we secured a lot of wind through the three utility-scale projects. At some point, do we have enough of wind in our portfolio?

Ken: We also need to keep in mind that we have more opportunities than we do funding. We need to serve our customers and what they want. We can't push them to what we want and force one technology.

Alan: Was the OPUC performance metric of 3 aMW on average over 3 rolling years changed during SB 838?

Peter: No. Prior to SB 838, we could have done any size project and there were two goals: 3 aMW for smaller projects and 12 aMW for larger-scale projects. When we moved to the smaller projects, we worked with the board and the OPUC on retaining just the 3 aMW metric on a 3-year rolling average. Now, we are again in discussions on how the metric can be modified to reflect the new market we are in.

Margie: The 3 aMW metric wasn't introduced until about 2005. The OPUC recognized prior to 2005, we were in a start-up mode with our renewable programs. Now, we are working to reformulate a meaningful metric that recognizes that we are no longer in the large-scale market and the Business Energy Tax Credit is absent. Volume is likely not the quantifiable measure anymore and it may be more about our role in how we create and transform renewable energy markets.

Juliet: We discontinued the renewable energy metric for 2012. During this year, we hope to develop the new renewable energy metric in place for 2013. We are discussing what the metric of success is for this program. It's not about quantity of generation and other ways can we show success.

Debbie K: There is great value in diversity. We’re not a big driver in the large-scale investments but we are valuable to helping projects in communities. Let’s think of metrics that can be benchmarks on how to transform this industry.

Ken: And when you start thinking through those kinds of measures, you can start focusing in on the other benefits beside generation. There are very different measures for MW targets versus market transformation targets. This is a struggle internal to NEEA right now. This is important to keep in mind as we think of performance measures.

Roger: Diversity is important but you need to keep in mind the resource potential for each technology.

Elaine: And we have that information in the packet; 40 MW for hydro, and 500 MW across all technologies. Quite a bit remains.

Jeff: Was this change to smaller-scale projects made to drive market transformation in diverse technology development or was it because people realized there are many opportunities out there, like biomass and hydro, which have multiple benefits beyond just generation power?

Peter: The legislation was really about the latter. Advocates for non-wind technologies knew an RPS leads one to the least-cost generation, and that’s wind.

Jeff: To me, that suggests we go where the neglected technology is, not after diversity.

Peter: When we discussed this with the board, we decided to continue as an organization with a diverse portfolio approach so we could stay nimble and available to where the market will take us.

Juliet: What I’m hearing at the OPUC is it would be ideal if moving forward, Energy Trust focused on projects not receiving QF (federal PURPA) funds. I don’t believe it will be a hard and fast requirement, but we might come back and suggest and discuss this with the board.

Ken described the QF issue and history around PURPA for the benefit of new board members.

Roger: A classic example is cogeneration, where excess heat goes into a process.

Alan: Avoided cost is still based on nonrenewable resources. That is totally illogical because the project developer is being paid for brown energy. It's more logical to produce green energy. And if the utility doesn’t buy the power, it wouldn't count toward the rate standard. The projects eligible for getting QFs are the projects that should be getting Energy Trust dollars.

Both Alan and Ken conveyed that the notion of Energy Trust not supporting QF projects is startling and disturbing. Alan would volunteer to help explain.

Juliet asked for clarification.

Peter: To make it really clear, our biopower, hydro, or next stage of geothermal projects cannot succeed without a QF. You have to have on-site generation and all power has to be used within the facility where it is generated. This might work for some, but not dairy, irrigation, hydro or large-scale solar. It’s a big dialogue. It would be a policy issue and would change our portfolio.

Dave: What is the cycle internally; say you really wanted to push into biopower or another new market, what is the process to get started?

Elaine: It takes a couple years to work into the market and understand and evaluate opportunities and projects.

Discussion ensued on whether Energy Trust funds should go to any QF projects, and the pros and cons of that.

Going back to the chart on pp. 8, Elaine said there's a projected decline in 2014 due to anticipated budget constraints and the industry adjusting to the lack of tax credits.

Elaine showed a chart on pp. 9 and said the PGE budget in 2012 looks like a decrease, which is a reflection that the carryover funds have been spent down and the programs are operating within the yearly budget. The anticipated Pacific Power decline starts in 2013 for the same reason. Pacific Power also has more resources than PGE and it's more competitive. The chart shows the funds available to commit, and does not include committed funds for projects under development. Another effect is allowable PURPA rates with recent changes to avoided cost drastically lower now than they used to be.

Elaine discussed evolution of the solar program, including a large growth in residential installations largely influenced by the success of community "Solarize" efforts and the new third-party financing models. She mentioned the graph on pp. 10 does not plot the Feed in Tariff projects. She said staff has reduced our solar incentives to manage the volume of projects coming in within the budget available. Elaine mentioned there's also a state tax credit residential tax credit still available. Overall, the program is transitioning to a maintenance strategy.

Elaine said that for custom projects, the theme is change of scale. Where we were successful in the past may not be where we focus in the future. Biopower may move from wastewater treatment plant projects to net-metered projects. Hydro may move from irrigation projects to new technologies and net-metered projects. Geothermal will shift to focusing on early support. As we develop a set of qualified installers and more national collaboration for small wind, we see focusing more in rural areas, like grass seed farms.

Dave and Ken: Keep in mind lost opportunities, like irrigation canals being piped without discussion around hydro potential.

Dan: Another target might be old National Guard bases.

Elaine discussed large-scale solar potentially transitioning to be competing with the other technologies for our funds.

Elaine described possible game changers for small-scale renewables including:

- Net metering advances, which is hitting the 5% cap and the 2 MW cap
- Recognition of value for the utility in distributed generation, collaborating with them and working on ideas
- Conversion of the community "goal" to a "requirement"
- Tapping those who voluntary support green power use in the state; both PGE and Pacific Power are top utilities in the nation for the number of customers who elect to pay more for utility green power programs

- Potential to standardize interconnection across the state, especially to reduce differences between investor-owned utility and consumer-owned utility processes
- Add funding to state tax credits and grants
- Explore whether to increase the public purpose charge for renewable energy

Alan: If the state is requiring renewables, that shifts the obligation to taxpayers and maybe Energy Trust shouldn't be investing ratepayer dollars for the same thing.

Jeff: We're paying a premium for these projects. They have above-market costs and they have other qualities they bring beyond generation, like disposing of forest residues and piping canals. Are those factors being represented when we analyze the economics of the projects?

Elaine: Not necessarily, the values need to have a set monetary value.

Roger: And some of those values have universal benefits, like clean air, reliability and storage.

John R: Seems like distributed generation brings diversity to the industry and strengthens the system.

Elaine summarized the presentation. 2012 will be a peak year for installed generation and then we will transition into more "normal" operations. This will direct us to our strengths, using our budget for all technologies, seeing smaller-scale, net-metered projects and supporting early stages of projects. Solar will transition to maintenance and supporting the delivery market. Plus, new policy changes may be on the horizon. The Governor's 10-year plan was quite vague on renewables but it's an area where we can help.

Alan: I think the group has done a great job with what's available to us.

Rick: Is working with projects 20 MW or less the right place for us to be?

Elaine: It seems like an ideal spot. Distributed generation is identified as a gap and we are already in that space. It's a niche where our presence is needed. We can be more integrated with other players.

Rick: It seems SB 838 gave us the short-end of the stick. And I agree with you that the Governor's plan opens up the question. I wonder if there isn't a different role for us, a question worth considering.

Ken: SB 838 keeps large-scale renewables served by investor-owned utilities with distributed generation remaining to be served. It's notable from the financial sheet handed out today that the amount of our incentives going to renewable energy projects is about 85-90% of total renewable expenditures, where on the conservation side it's 50/50.

Roger: I think the SB 838 cap works for technologies except wind.

Ken: I'm fine with that. It seems like we have lots of wind in Oregon and we have less of other renewable energy project development. Utilities have figured out how to do wind, to the extent that communities want to do wind, we're available.

Jeff: How is the 20 MW limit applied? What if a 100 MW project is built in increments of 20 MW?

Peter: We did test the limit with the solar highway projects and the large-scale wind project post SB 838. As you build out a phased project, and the phases are completely independent of each other, we can fund the phases.

Margie: By law, we have a mandate to be in small-scale renewable energy development. We are at a juncture where the Governor's energy plan could have items in it that we could leverage, particularly related to biomass. To the board, are you interested in us pursuing and expanding that? Or are you more in agreement with Alan that we shouldn't be in this business because ratepayers are supporting the RPS?

Alan: I think the ratepayer dollars should be going to energy efficiency. If the state decides to put dollars to small-scale renewable energy, we can do that with taxpayer dollars.

Rick: If you're asking whether we should frame up the distributed generation issue moving forward, yes, we should. I'm concerned on the renewables side about the taxpayers vs. ratepayers. In Oregon, it looks like the utilities will meet the RPS will little new investment. Our contribution to renewables is more modest than we thought.

Margie: It's a different contribution.

Joe: Are we facing a choice? Is the Governor's plan asking us to go down this road?

Margie: It's not our decision. It's our role to identify opportunities and choices, options that the Governor's team will consider. The question is which road do we want to go down?

Jeff: The Governor's plan has or will have a strong emphasis on biomass. There are questions to address on sources of funding and what projects to support. What's indisputable is the organization has the skills that could influence the discussion.

John R: The long-term future of our utility partners clearly lies with investing in renewable power. The RPS should be a floor, like the Governor's plan suggests. I don't have an issue with using ratepayer dollars to more rapidly increase renewable energy development.

Roger: Consumer-owned utilities are not participating and yet are appreciating the benefits regarding renewable energy investment; so I agree with Alan's principle, without extending our purview statewide, you are burdening ratepayers inequitably. I don't know how we get around it.

Ken: To me, it's not. Consumer-owned utilities don't depend on coal power, its investor-owned utilities using fossil fuels. We need a laser like focus. The example is the Business Energy Tax Credit, which lost its focus and suffered. We have a big task just working with our utilities and I want to focus there.

Alan: There may be an opportunity to work with BPA to get consumer-owned utilities to come to Energy Trust to work with our programs.

Margie: We've done a little bit of that through a contractual relationship with some COUs, like Monmouth and McMinnville where we serve the gas conservation needs in their electric service areas. Until there was overspending at BPA on efficiency programs, it was going quite well; there may be more potential.

Alan: The smaller ones may be looking for solutions.

Ken: That's great if it's voluntary. I worry if it's seen as an effort to force consumer-owned utilities into participating with Energy Trust. The real issue then is not with consumer-owned utilities but with BPA, which has tight control over its efficiency programs.

Peter: BPA helped us fast track small-scale interconnection in the early years, so they were very helpful and are the easiest to work with on interconnection.

Roger: The consumer-owned utilities need to be participating.

Dan: What about storage? It goes with distributed generation and peak shaving. It would be worthy to consider policy changes that include storage in our renewable energy programs.

Elaine: We've met with ABS, which does lithium ion battery storage on Long Island. They don't see storage as part of our projects for another five to 10 years.

Debbie: I think more about a focus on market transformation work, and changing scalability with some newer technologies. There's a valuable role to play in scaling technologies and what type of assistance needs to happen.

Margie: We can have a conversation with the utilities about district-scale approaches, bringing the model to schools and communities. There are opportunities with land development to preserve the solar potential on new buildings and homes. Other potential includes building solar charging stations for electric vehicles.

Peter: We are working with the solar shares concept, a community-owned idea.

Jeff: I can also envision storage projects where we could potentially be involved.

Rick: This comes down to how we characterize our role and how it links up to other related activities in the region. Strategically, it looks like we're operating in a shrunken vision of the role of renewables. But if we are cooperatively engaged with others, there may be opportunities.

Margie: Another example is we have a lot of value to add to the Governor's plan if it includes biopower.

Ken: There's lots of resource for us to achieve when you look at the resources under 20 MW, I think we have rich opportunities, but the challenge is we need to find where we can help.

Dave: With solar, if the goal was to get it started and now it's doing so well, what's the strategy?

Elaine: The solar chart also includes large-scale solar. The strategy should be to work to maintain installations.

Alan: With our $14 million budget and 3 aMW goal, could we build a 3 aMW plant and give it to someone to operate?

Break at 10:48 a.m. Retreat resumed at 11:05 a.m.

Board discussion: Energy Trust comments on the Governor's draft plan and other issues

Nick: We'll spend less time on specific content than on the process we'd like to go through to deliver a response to the energy plan draft.

Margie: What things about Energy Trust belong in our response that we've discussed here? If there is something burning from the last day and a half, let us know so we can capture that.

Rick: How do we feel about the theme of the plan to meet all future load growth vs. the graph that we've looked that suggests the resource may not be there after 2017?

Margie: We need to point out what we are predicting and identify ways to change strategies and examine ways to penetrate underserved markets and look at ways to scale programs.

Rick: We raise that question in the Policy Committee. Is that graph real? Is that what we really expect to see?

Margie: We've always been able to project only about five years out. The question is this projection different?

Ken: As the graph goes down, does that mean that we have extra funds available? Because then we could do potentially different things. Or is it that we're spending it all and the savings are just more expensive?

Margie: It may be a combination of spending more for some savings acquisition and doing different things. We may find that we negotiate less funding if conservation potential actually does diminish. That analysis is very refined based on resource potential and will determine how much revenue is justified to capture cost-effective savings.

Alan: I'm concerned with inconsistencies in the Governor's plan: goal one to maximize efficiency and conservation, vs. goal three contradict each other.

Margie: We need to point out the inconsistencies and present how to possibly resolve them.

Dan: You need to look at the correct pie. If you look at where energy in Oregon is coming from, you cut the slice out of the imported fossil fuel pie, a very good thing, and that lines up with the governor's plan goals. It should hurt Oregonian's wallets less as well.

Roger: I've felt that we're low-balling our population projections and energy demand. Looking at projections globally, the Pacific Northwest is starting to look like a potential haven. Our demand may increase faster than we think. There may be greater opportunities for energy efficiency than our projections indicate.

Ken: An internal conflict I see is that we are supposed to increase our efforts, and there is no BETC. That's just inconsistent with what Oregon seems to be doing.

Margie: I agree. There may be opportunities to revisit how to rebuild and strategically target tax incentives.

Ken: I think it's important to reflect on the benefits that BETC has provided to Energy Trust in supporting and being a copartner with all of our programs.

Margie: There are areas where that impact is greater.

Julie: Process issue: you'll draft a response, circulate it with the board, how does that work?

Margie: One option is for staff to draft something for the board to review and give us your comments. We could use the Policy Committee as the vetting place for this. I'm very open at this point to hear what process you would prefer.

Debbie: I like the idea of a deadline like a week from now for board members to comment and staff is reviewing it concurrently. The draft response could go to the Policy Committee, and back out to the board for final review and approval. Is this coming from board or staff?

Margie: We believe it should come from John R. as the board chair.

Jeff: Does the governor expect us to respond? Is this a constructive critique to the plan, or more a question of how we can constructively support the plan's efforts?

Margie: There is an expectation that we'll respond. Margi Hoffman has asked us to review and respond.

Ken: How should individual board members comment on this?

Margie: Board members are welcome to take off their Energy Trust hat, note that their comments are not representing their role as a board member, and provide comments on the plan.

John R: It would be important to specifically say we are not speaking for Energy Trust.

Nick: To conclude, we'll set a deadline in about a week for everyone to respond and provide their draft comments. Staff will combine these comments with their own review to craft a draft response. The Policy Committee will convene and review the draft, and it will go back to the full board for final approval.

Ken: Let's set the deadline for a week from Monday.

Margie/Debbie: Agreed.

Joe: If a board member decides to go forth and comment even privately, let Margie know.

Alan: Someone should send an email asking for comments.

Julie: I don't remember how we know that the Policy Committee is meeting. It might be worth it to expand the invitation beyond the Policy Committee.

Margie: Great idea, we'll make that happen.

Nancy: Once the board reaches a quorum it becomes a public meeting, just FYI.

Margie: Then notification is required.

Julie: We could anticipate it being a large meeting.

John R: The next regular Policy Committee meeting is July 24. We'll need to have a special meeting.

Nick: Next up, your letters about where Energy Trust will be in 2022. How would you like to receive them?

John R: Electronically. I'll file them in two places, in a word doc and in my email. Please submit soon. I'll start sending reminders. These will go in the 2022 vault. If you had fun and want to share, I'll offer a future president's report slot for that to happen.

Margie: Can copies also be sent to Energy Trust so we can keep them?

John R: Yes, copies can go to Margie.

Ken: One of my issues is 10 years of clean audits. (laughter)

Nick: Let's have a quick general recap of the retreat. What are your thoughts on the Edgefield facility vs. Reed College? Is there any general feedback for using this facility?

Julie: I don't think we need to go anywhere. I am of the feeling that these meetings can be done where we work. I could be convinced otherwise, but I felt a little awkward coming here. Some associate Edgefield with alcohol; I struggled with that. To the extent that we can mature the agenda to the point that we are only away for one night, that's ideal from my perspective. I'm happy to help with some of that planning.

Alan: I think this was fine. I like the one day idea, but I think there was value in being able to think about things over overnight. For the staff it has to be less convenient for them to come out here than to Reed. At or near Energy Trust might be better.

Ken: I kind of follow with Julie's comment. Like the idea of concentrating the meeting to one day. Start with a late afternoon optional reception/dinner the night before. It would be good to get the slide deck and materials ahead of time. Would help us pre-think some of this.

John R: As an architect I think places have an influence on how people behave. I think it's a good idea not to meet where we work. It helps people think out of the box, and I think the overnight helps in that fashion as well. I enjoyed wandering around the grounds.

Jeff: I endorse John's last comment, I see a lot of value in getting away from the office. It is so much more productive and more free thinking being in a location like this. I realize the overnight is inconvenient for some, but I think the value of thinking about issues overnight is significant.

Ken: I understand why two overnights for some is difficult, and I sympathize with that.

Jeff: The Power Council faces that. We start at 10 so people can get in in the morning, and then we can go a little later.

Roger: I agree with the idea of getting away. I agree with some that Saturdays are a problem. If we're going to do two days, can we make it work on two working weekdays?

Alan: Some of the groups I work with do Thursday afternoon and Friday morning.

Debbie: We have had this on weekdays before, but that was hard for some. But I will defer to people who travel.

Anne: I know I'll have to travel for a board like this, and I don't mind. It's a personal growth opportunity for me, and I don't see it as a negative. Having personal time to get to know each other and relax is valuable, so having an overnight is nice. Moving the meeting around the state a bit could provide some opportunity to get to know some communities as well.

Dave: I think the day and a half is important to help new folks get up to speed and learn the context of the organization. It also speaks to the gravity of what we're discussing, and helps send the message of the importance of the issues. I like the idea of maybe moving it around, outside of Portland is nice from a driving perspective. If people are flying, downtown is good with public transportation. Friday-Saturday is better for me.

Joe: I think the day and a half works well, weekday or weekend. I understand Julie's point, needing to be conscious of the public dollars, but it was nice to get away. This facility worked well to get out, wander around, analyze things.

Joe: Does location matter?

Margie: Fewer staff came because we're here. This may be true of the utilities, ICNU and other stakeholders we've had attend in the past. Being further away would cut into other people's time and travel. That's why we've historically defaulted to Portland. It's always comes down to time and expense as to why we haven't held meetings elsewhere.

Dan: Again, great for the staff to get out of their office. I prefer this space to what we've used at Reed. It's more open, comfortable, relaxed. I appreciated it and took the time to enjoy it while I was here. The room arrangement, acoustics and lighting were terrific at this location.

Rick: I tend to think mostly about the quality of the presentations and the interactions. This year it has been extraordinary; we've had some great discussions. Location can seem secondary, but I felt better here than any location we've had before. Doing this kind of thing in the office from the staff perspective does not work as well. You're right by your inbox and thinking of that. We don't have to go far or incur high expense, but it is useful to step away. This is our chance to step out of a regular meeting and interact more informally than in our board deliberations. It's been very beneficial.

John R: I miss playing with the skylight at Reed. Reed is a beautiful campus. But I really think this has worked very well.

Alan: The dinner last night was particularly good. I'm not a fan of big crowds, and last night didn't feel like that.

Margie: Last year was the first year we stopped having a joint staff/board dinner. It didn't achieve the goal of having the board and staff interact and it facilitated the board having social time to interact in a small group. We still have a joint board/staff holiday gathering.

Nick: To bring this to a close, what's the most important thing you learned at this meeting?

Rick: It's interesting to come into these meetings where people who have been in the energy business for a long time and interacting with people new to the industry. New board members add a reality to the discussion.

John R: Big changes coming soon.

Roger: The future isn't what it used to be.

Dan: A very insightful comment from Ken: the loss of focus was probably BETC's demise. Correct focus will ensure liveliness.

Joe: I enjoyed the content and learning since I have little energy experience, and also the content we received from staff. The future is unknown, though we know it will change.

Alan: I was struck by the diversity of the board, geographic, length of tenure, but I thought we worked very well together here.

Anne: I second Alan. We have diverse opinions and experiences and I appreciate the position. Kudos to the staff as well. The materials are outstanding compared to other boards I've sat on. They help educate us pretty rapidly. I appreciate it very much. I'm excited because there's nothing but change ahead and I revel in that. We need to think out of the box and challenge our state.

Jeff: I've been associated with Energy Trust for a long time. This has given me a greater appreciation for the capabilities and competencies of the organization. It was kind of a downer that conservation opportunities are closing down, but I see a huge array of opportunities in the future to take advantage of.

Julie: After working with Energy Trust since the beginning, it's amazing how little I still know about energy efficiency. But I'm put at ease when I see presentations like the students' yesterday. I realize we are in capable hands in the future.

Ken: I view so much from a 35 year energy political history. I'm mindful of the fact that this is a very important time for Energy Trust. It could be really good or kind of scary. It is important for all of us to think about the opportunities and the responsibilities we have as board members to talk about and explain Energy Trust.

Debbie: I felt the staff did a great job presenting. I am impressed by the depth of knowledge they bring to the table. I am also excited about the diversity of the board. I'm optimistic!

Dave: Last time I met (my first time) I came away pretty impressed. This weekend solidified that. The presentations were done well, and the presenters were not defensive but welcoming of feedback. The board is pretty sharp. It's nice to be around some intelligent people and have my thinking challenged. I'm a strong believer in lean and continuous improvement. The future we see now probably won't happen, but if we keep working we can continuously improve beyond what we can see as being possible now. We'll find ways to improve.

Margie: I appreciate all of your dedication. This is a stellar board. I appreciate how you are committed, prepared and engaged. These are changing times. We have to be willing to tell our story effectively and target the people who need to know. More will have to happen surrounding the role Energy Trust will play in the governor's plan. I want to thank the staff for all their preparation and the great materials that enabled you to go deep and ask challenging questions. Nick, you did a great job facilitating. You allowed the conversation to expand organically while bringing us back at the right moment. Thank you.

Nick: Thank you, I'm honored to play the role.

Dave: Quick question: should we have standardized info to share out in our regions? Is there a list of influential people in each region to share with?

Margie: We talked about a strategic outreach strategy at a mini-staff retreat recently. Many of you here will be asked to participate, starting by contributing to the list of individuals we will be engaging with throughout the state. **Workshop adjourned at 11:52 a.m.**