

Strategic Planning Workshop—150th Meeting Mercy Corps, Portland, Oregon

May 18-19, 2017

Board members present: Susan Brodahl, Heather Beusse Eberhardt, Ken Canon, Roger Hamilton, Lindsey Hardy, Mark Kendall, Alan Meyer, John Reynolds, Anne Root, Steve Bloom (OPUC ex officio), Janine Benner (Oregon Department of Energy special advisor)

Board members absent: Melissa Cribbins, Dan Enloe

Staff attending: Mike Bailey, Scott Clark, Amber Cole, Mike Colgrove, Hannah Cruz, Sue Fletcher, Matt Getchell, Fred Gordon, Jeni Hall, Mia Hart, Betsy Kauffman, Corey Kehoe, Oliver Kesting, Steve Lacey, David McClelland, Debbie Menashe, Spencer Moersfelder, Dave Moldal, Pati Presnail, Thad Roth, Cameron Starr, Mariet Steenkamp, Greg Stokes, Scott Swearingen, Julianne Thacher, Jay Ward, John Volkman

Others attending: Eric Anderson, JP Batmale (Oregon Public Utility Commission), Holly Bruan (NW Natural), John Charles (Cascade Policy Institute), Bill Edmonds (NW Natural), Rick Hodges (NW Natural), Scott Johnstone (Vermont Energy Investment Corporation, keynote speaker), Tamy Linver (NW Natural), Jeremy Litow (Northwest Energy Efficiency Alliance), Cory Scott (Pacific Power), Anne Snyder-Grassman (Portland General Electric), Allison Specter (Cascade Natural Gas), Nick Viele (Facilitator)

Call to Order and Welcome

President Debbie Kitchin called the meeting to order at 8:05 a.m. She introduced the workshop as an opportunity to explore strategic planning topics. Debbie thanked the Strategic Planning Committee and staff for planning the event. Debbie introduced Mark Kendell, chair of the Strategic Planning Committee.

Mark described the goal of the workshop, which is to review the midpoint of the current 2015-2019 Strategic Plan and begin thinking about the next 2020-2024 Strategic Plan. Scott Johnstone of the Vermont Energy Investment Corporation will be the guest speaker. The board will then explore new possibilities, starting with seed topics proposed by staff.

Nick Viele, facilitator, reviewed the agenda for the day.

Opening Remarks

Executive Director Michael Colgrove shared opening remarks to kick off the Strategic Planning Workshop, beginning by thanking staff who planned the retreat. There are two major topics for today's workshop—progress toward the current strategic plan and opportunities and challenges for the next strategic plan. The retreat will conclude with an actionable list of issues for staff to explore in preparation for developing the 2020-2024 Strategic Plan. The board encouraged everyone to be open to new ideas.

Mike briefly reviewed Energy Trust's history and the organization's evolution over time, including expanding to serve new utilities and NW Natural customers in Washington. Energy Trust has adapted to remain relevant during dynamic economic and technological changes. Throughout, Energy Trust maintained a portfolio-based and customer-focused approach. Energy Trust should maintain this customer focus as the board and staff consider new issues and customer needs for the next eight years. Customer needs are changing. People use technology that is more advanced, have shorter attention spans and speak more languages. They bring a range of values to their energy decisions, such as environmental benefits and economic development. Utilities are also changing and exploring more specialized roles within an energy market increasingly targeted for decarbonization. Markets are

changing as new technologies bring new choices for consumers, such as online procurement of goods and shared ownership models for cars and bikes.

Staff prepared nine short papers priming new topics to consider, and these are meant to spark the board's thinking. They do not represent all possibilities. The board should think more broadly than these examples. Where else can Energy Trust support or lead?

Mike reviewed technology changes in the past seven years, such as the invention of the iPad, the transition from cabs to Lyft, and the shift of carbon policy from the federal government to states and local government. Seven years from now, there will be an internet of everything. Electric vehicles are expected to reach price parity by 2022, and by 2040 one-third of all cars will be electric. New energy products are expected to include ultrasonic clothes dryers and snap-on air conditioning systems. Solar and battery costs will drop. The pace of change will accelerate. But there will still be potential for cost-effective energy efficiency. What should Energy Trust begin thinking about to remain relevant and serve customers in the future?

Strategic Plan Progress Update and Mid-Point Review

Senior Communications Manager Hannah Cruz presented progress toward Energy Trust's 2015-2019 Strategic Plan, and reviewed a dashboard indicating progress. The plan included three energy goals: save 240 average megawatts (aMW) of electricity, save 24 million annual therms of natural gas and generate 10 aMW of renewable energy.

Energy Trust is two years into its five-year plan, and achieved 47 percent of electric savings goal, 55 percent of natural gas savings goal and 67 percent of the renewable generation goal. On the electric efficiency side, Energy Trust is about 13 percent ahead of expectations, thanks to strong new construction, LEDs and the Northwest Energy Efficiency Alliance. On the gas side, the organization is 28 percent ahead of expectations, due to robust new construction and Production Efficiency projects. Hannah noted that Avista savings are included in achievement but not in the goals. On the renewable energy side, the majority of generation was from solar. Energy Trust expects to reach its five-year renewable generation goal ahead of schedule in 2017.

Hannah described progress to the emerging efficiency resources goal, which includes NEEA and Energy Trust activities. In 2015, NEEA added gas market transformation to its portfolio. NEEA moves technologies through a five-stage pipeline. Technologies don't always move sequentially through the pipeline.

The board noted that some NEEA technologies are new entirely, and some are just new to the U.S. market. The Pacific Northwest is a relatively small market on a global scale.

Eddie Sherman arrived at 8:55 a.m.

The board asked for a definition of a combi system. Fred Gordon explained that it heats both space and water.

The board asked how Energy Trust is transitioning products out of the market, such as CFLs. Fred described Energy Trust's role in market adoption of LEDs versus CFLs. LEDs have had faster national and international market adoption and presented fewer barriers for market adaption, so Energy Trust's role may be more limited..

Hannah reviewed the goal to expand participation, including market research, evaluation, program design and execution. So far, Energy Trust has conducted focus groups, targeted marketing efforts and identified gaps in participation. Customers who make less than \$75,000 annually, lack a bachelor's

degree, or who are Hispanic are less likely to participate. Energy Trust also pursued a diversity initiative and research to expand customer education. In 2017, Energy Trust has been working to modestly expand investment in community education. Staff also conducted research to understand and evaluate other educational programs, including K-12 schools engagement and online customer engagement.

The board asked what's necessary for a community-based engagement to be robust and successful. Hannah responded that staff are exploring possible approaches, including a template approach that could be applied to all communities versus a customized approach.

The board asked how Energy Trust views language as a barrier to participation. Communications and Customer Service Senior Manager Sue Fletcher responded that call centers have Spanish language translating resources, and Energy Trust also explored translating materials into Spanish. Additional efforts are underway to ensure translated materials are culturally appropriate and not just word-for-word translation.

The board asked how Energy Trust is considering online and social networking communities, such as Nextdoor. Hannah summarized Energy Trust's current social media presence and plans to expand it.

The board asked what percentage of Oregon households make less than \$75,000 annually, as the median income in Oregon is \$55,000. Energy Trust is missing a large swath of middle-income customers. Does Energy Trust have a middle-income participation gap? The board requested that staff bring this participation data to the board evaluation committee.

Improving operational effectiveness is the third strategic plan area. Energy Trust developed four administratively focused productivity metrics, including internal procurement and payment, incentive processing, customer service and customer information, and energy project tracking. Improvements have included a new interactive voice response system, or IVR, a new website, and exploration of a new incentive reversal process improvement. In 2016, Mike identified four additional areas for improvement, including an organizational review, lean startup customer development, budget process reassessment and improvements to data and tracking systems. Two teams are using the lean startup approach to explore services to low-income customers and educational opportunities.

The board asked if lean startup techniques will be used going forward. Hannah responded that the process is time-intensive and Energy Trust will determine the utility in summer 2017.

The board asked about customer satisfaction with the IVR system. Senior Customer Service Strategy Manager Cameron Starr responded that Energy Trust doesn't currently have these results, but will explore them.

The board asked about data resulting from lean startup projects. Hannah responded that staff will return to the board when results are available, likely in August or September.

The fourth strategic plan area is exploring new opportunities to propel the organization, including monitoring policy and identifying how Energy Trust can support utility load and demand management efforts. Complementary initiatives included the irrigation modernization initiative, water sub-metering pilot and manufactured homes replacement.

The board asked how Energy Trust will gauge the non-energy benefits from some of these efforts, such as benefits gained through the irrigation modernization initiative. Hannah responded that Farmers Conservation Alliance brings this holistic view to the effort, capturing the value of water savings, economic development and environmental benefits.

Hannah continued that Energy Trust has monitored policy initiatives closely, including multiple OPUC dockets, state legislation and the pause of the federal Clean Power Plan. The board suggested that Energy Trust not rate itself orange in the strategic plan dashboard for things that happen outside of its control.

Energy Trust also supported load and demand management efforts of utilities, including conducting several pilots in collaboration with utilities and submitting a report outlining demand management activity to the OPUC.

The final area of the plan is driving staff engagement, which is measured through an annual Staff Engagement Survey and Energy Trust's ranking in the Oregon Business magazine 100 Best survey.

The board asked if overachievement of strategic plan goals indicates that the goals were set too low. The board suggested Energy Trust do more work to evaluate the potential energy savings so the organization can set goals more appropriately. Staff responded that several efforts are underway to better understand and characterize energy-efficiency opportunities, including through the diversity initiative.

Hannah asked if the level of detail in the dashboard is useful and appropriate. The board suggested adding a higher-level overview to the dashboard. Mike explained that the intention of the dashboard was to provide a quick look at progress, and suggested the board review the tool and provide feedback at the July board meeting. The board acknowledged that development of the document is time-intensive for staff. A board member responded that the paper contains the right level of information. She suggested that if staff want feedback from the board, it would be useful to add a set of questions. For an overview, the board requested a copy of the PowerPoint presentation in board packets. The board appreciates the level of detail in the dashboard, and suggested staff pull out highlights up front and add visual cues indicating the most important points. Mike asked the board to consider whether the paper communicates the minimum information needed to understand how Energy Trust is tracking toward the strategic plan and why.

The board took a break from 10:00 to 10:15 a.m.

Strategic Plan Progress Update, Continued: Progress to 2015–2019 Strategic Plan Energy Efficiency Goals

Planning Manager Spencer Moersfelder presented on progress to strategic plan energy-efficiency goals. As Energy Trust is ahead of goal, staff may face a decision during 2018 budgeting to determine if Energy Trust should continue at its current pace of savings and generation.

Goals for the 2015-2019 strategic plan were set aggressively based on what staff knew in 2014. Staff front-loaded savings in the first few years of the plan to ensure goals were met. Energy Trust is exceeding projections so far due to aggressive program strategies, a strong economy, rapid maturation and adoption of LEDs, and a long, cold winter that spurred investment in energy efficiency.

The energy efficiency resource is finite. If Energy Trust achieves more now, it will leave less for the future. The board responded that the energy efficiency resource is not finite, it is only finite given the current state of technologies. As new technologies emerge, so will new energy-efficiency opportunities.

Spencer summarized other issues to consider. Additional funding was required from some utilities in 2017. Current acquisition rates exceed the forecasted 20-year annual average resource. Staff anticipate that future savings will be harder to acquire.

Forecasts have inherent uncertainty, given economy, weather, energy prices, utility load and building forecasts, megaprojects and uncertain emerging resources. It's difficult to forecast unknown resources that have yet to emerge.

Indicators that savings will become more difficult to acquire include declining savings for specific measures, more efficient baselines due to codes and standards, deep penetration in some residential measures, including lighting and water-saving devices, and deep penetration in commercial and industrial markets.

Spencer posed to the board how should Energy Trust modulate activity given long-term resource availability and should Energy Trust adjust the pace of acquisition.

The board noted that the board pushed staff to increase the goals in Energy Trust's current strategic plan. The earlier people upgrade to efficiency, the more they save over time. The board noted goals other than energy savings, such as serving new and diverse customers. The question should be what is Energy Trust trying to achieve and how should it weight various goals?

Spencer suggested the board consider Energy Trust's long-term viability and success in interacting with markets. Energy Trust supports a market of trade allies and business, and if there is a sharp drop in savings opportunities, it will affect those businesses. Should Energy Trust have a graceful market exit?

The board noted that while the energy efficiency resource may not be finite, funding is finite. Energy Trust's charter directs it to acquire only cost-effective energy efficiency. With the changing market, does the definition of cost-effective need to change?

The board asked how Energy Trust's goals integrate into utility Integrated Resource Plan goals.

The board noted the critical importance of anticipating the next energy-saving technologies. Board members also observed that Energy Trust's ultimate goal is to eliminate the need for Energy Trust. The board asked if Energy Trust's funding will increase proportionally to load growth from people moving to Oregon.

Mike acknowledged the inability to predict the next technology. Will the ultrasonic clothes washer become viable in five, 10 or 15 years? Energy Trust is likely facing a trough in energy efficiency opportunities. Energy savings are at a peak right now, and will likely peak again. But how will the organization weather the trough? If Energy Trust dismantles its infrastructure during a trough, it won't be easy to rebuild again when there is more opportunity. How can Energy Trust reduce the peaks and raise the troughs so that it can maintain the relatively consistent services and infrastructure needed to serve the market?

Strategic Plan Progress Update Continued: Managing for Uncertainty in Renewable Energy

Betsy Kaufman, renewable energy sector lead, and Dave McClelland, senior solar program manager, presented on challenges and uncertainty in the renewable energy market. When Energy Trust set its strategic plan renewable energy goal, staff expected the federal Investment Tax Credit to expire at the end of 2016. The tax credit was extended. Staff also anticipated market conditions to change significantly, and they have. Qualified facility rates have dropped substantially, which has had a chilling effect on the non-solar market. However, demand for solar systems has increased. This presentation will focus on solar.

Betsy provided an overview of Energy Trust's renewable energy program design. Energy Trust supports a portfolio of renewable energy technologies with the bulk of generation from residential and commercial

solar. The goal is to build an industry, create wide participation and provide funding to develop a pipeline of future projects.

Dave described changes in the solar market. Solar prices have declined significantly in the last six years, and Energy Trust solar incentives have dropped proportionally.

The board asked about soft costs of solar compared to the cost of panels.

If the trend of declining costs continues, there may no longer be above-market costs for solar systems. Dave noted that the Oregon Residential Energy Tax Credit currently covers about 25 percent of residential solar project costs, and it is set to expire at the end of 2017. The expiration of the Residential Energy Tax Credit would more than double above-market costs. Depending on whether or not the tax credit is extended, above-market solar costs could either increase or disappear.

Commercial solar prices have dropped more than residential solar prices. Commercial activity spiked in 2017, and Energy Trust has begun to reduce commercial incentives to support as many systems as possible. In addition, Energy Trust implemented a cap for the size of commercial solar projects to manage budget. Energy Trust will no longer incent projects with more than 250 kW in PGE territory and more than 100 kW in Pacific Power territory.

The board asked about the average size of commercial solar systems. Dave responded that the average size range is 30-60 kW.

The board asked about the impact of the Oregon Department of Energy's Renewable Energy Development grant. Dave noted that Renewable Energy Development grants fund a small percentage of projects Energy Trust incents.

Dave described uncertainty in the market, including an OPUC rate case and legislation.

If there are no above-market solar costs, Energy Trust can support certain market segments, such as low- to moderate-income customers and nonprofit and government entities.

Dave described new opportunities and priorities. Last fall, the OPUC recommended that Energy Trust prioritize solar projects with additional utility or locational benefits and soft cost reduction.

Technology is also advancing, such as smart inverters and storage. In the next five years, these technologies will represent the biggest change for Energy Trust's Solar program. All solar systems may be installed with storage. Advancements are expected in mapping locational opportunities and constraints. Energy Trust is working with Kevala, which has received a SunShot grant to model the biggest grid opportunities in Oregon. To better match solar load with generation, advances in monitoring and controls will make solar more reliable and potentially more dispatchable.

The board asked about a new development in solar roof tiles. Dave responded that this technology is still expensive.

Interest in community resilience is also driving solar markets. Solar and storage can help communities remain resilient after natural disasters, such as earthquakes.

Betsy explained renewable natural gas opportunities from biogas, such as the use of biogas in wastewater treatment plants. There could be opportunities to feed this gas into natural gas pipes.

Energy Trust manages uncertainty by exploring new directions. For example, staff are participating in U.S. Department of Energy programs to develop strategies to deploy solar to low- and moderate-income customers. Staff are working with PGE and Pacific Power to learn how Energy Trust can impact demand.

The board asked about the mapping work with Kevala. Does that work integrate with the utilities? Are utilities engaged? Is it collaborative? Dave responded that Energy Trust has shared this opportunity with the utilities, and utilities can decide if they would like to participate.

The board commended staff for summarizing the challenges and disruptors in the solar marketplace. What is Energy Trust's role in transforming the market? What is Energy Trust's mandate from the OPUC regarding buying down above-market costs?

The board asked if there are new developments in small-scale wind or wave energy. Betsy responded that wind developments have not been positive. Wave energy is still in the research and development phase. The board suggested that microgrid technologies could support local resiliency efforts.

The board noted the current federal administration is actively hostile toward energy efficiency and renewable energy. Energy Trust is not able to predict what will happen next. The board sees this as a threat, but perhaps it could also be an opportunity. How can Energy Trust leverage its reputation as a leader to play a role on the national stage?

2017 Legislative Update

Jay Ward, senior community relations manager, provided a state legislative update. Energy Trust does not lobby or take positions regarding legislative issues. Staff monitor bills that could affect Energy Trust's work. Energy Trust was recently invited into a work group regarding transportation electrification opportunities, but there are no further actions. Energy Trust staff testified at a hearing to provide information regarding potential impacts when the Residential Energy Tax Credit is set to expire at the end of 2017.

The board asked if there are any viable bills to repurpose Energy Trust funding. Jay responded that at this time only one is still alive, and the amendments affecting Energy Trust were not adopted.

Mike suggested board members jot down ideas of topics to discuss further at the July board meeting.

Keynote Speaker: Scott Johnstone, Vermont Energy Investment Corporation

Mike introduced Scott Johnstone, executive director of Vermont Energy Investment Corporation (VEIC). Energy Trust and VEIC have a longstanding relationship of sharing experiences and lessons. Scott shared insights from leading VEIC.

Energy efficiency and renewable energy are changing rapidly. Conditions are changing. Organizations need to build on experience when looking to the future. Energy efficiency is a maturing industry that Energy Trust and VEIC helped create. The energy efficiency industry needs different things from Energy Trust and VEIC at different stages of its development. We can recreate our organizations. We can be a new business startup and bring different ideas to market. Energy Trust is a national leader, and the world will need leaders even more in the next five years.

VEIC was created in 1986 with a vision to create a healthy planet, thriving people and social justice. The organization is about averting climate change while creating economic opportunities for all people. We operate three entities like Energy Trust. Our organization used to be nearly all Efficiency Vermont, which is analogous to Energy Trust. Now we now operate electric vehicles, Efficiency Smart education programs and a District of Columbia program. We have a 30-person

consultancy that works in 35 states and other countries. This has been a way to diversify revenues.

We are overwhelmed by the enormity of change. Businesses are positioned to go directly to market and displace us. We're duplicating services for consumers because everyone is in a silo. The current federal administration's policies put states in the leadership role of energy policy. Economic benefits from energy efficiency will stay in state, whereas profits from fossil fuels will leave the state. We're facing a lighting cliff. That's something to celebrate, we're attaining market transformation for residential lighting. The emergence of big data is another massive change. How can we use data? How can others who use data better do our jobs better? There will be greater needs to serve low-income and diverse populations.

In the face of all this change, we seek stability. But we need to adapt and change.

In California, there is a property assessed clean energy initiative delivered by a business separate from utilities and government. The company is not taking incentives because it doesn't want to be slowed down by bureaucracy. This means that utilities can't claim the savings or forecast accurately, but the market is working. VEIC is developing a web-based tool for companies to help employees save energy and money at home. It doesn't rely on incentives.

Utilities are feeling stressed because load is declining due to more solar and energy efficiency. This strains our ability to collaborate with utilities.

It's paramount to figure out the right question to ask to determine our future.

I think we will see more criticism of the public purpose charge as a tax as businesses begin to serve the market directly.

There are many paths to consider. I believe Energy Trust's role will change dramatically. I don't believe we will serve all people and all markets. We will fill market gaps that are less profitable, like low-income customers and market transformation. We'll have to be more nimble and adaptable. Five-year planning cycles will become 18-month planning cycles. VEIC will be more of a holding company. We operate eight brands and five of them are subsidiary corporations. This enables us to be more nimble and adaptive.

I see two areas to investigate. The first is healthcare. Both New Zealand and Vermont have explored non-energy benefits of energy efficiency on the healthcare system and estimated a value of 10-12 cents per kWh. If you value benefits on the healthcare system, energy-efficiency measures become more cost-effective. Could a doctor prescribe weatherization for your home to mitigate asthma?

The second idea is about electrified autonomous vehicles. I believe we'll start to see electrified autonomous vehicles on the market in five years and they'll be commonplace in 15 years. The market for autonomous vehicles is going to move much faster than we thought. With electrified autonomous vehicles, everything we know about city planning will change. Commuting time will become part of your workday. It will matter less how far you live from work. There won't be car ownership. You won't need to park. What is the efficiency role here? This is beyond transformational in terms of our work.

Data analytics present opportunities to develop new tools and systems and create new opportunities from that. Someone must play the role of unbiased consumer information protection. We should position ourselves to keep doing that. It doesn't generate revenue but it's vital.

You could also play the role of integrating all the pieces, such as energy efficiency, renewable energy and storage. Whether or not you can offer incentives, these services still need to be integrated and packaged for consumers.

Research and development will remain key. We added this to Efficiency Vermont about five years ago.

There are opportunities to create new business models. Some of these can be nonprofits and some can't. You could export your knowledge as consultants.

Examples of VEIC subsidiaries include VERMOD, a company that replaces mobile homes with zero energy units. We spun off a car share company. We created an energy co-op. We created a new community solar for-profit venture targeting renters and low-income customers. We created an energy education business called Vermont Energy Education Program that provides education to fifth grade classrooms. We have dozens of other business ideas.

There are opportunities to reinvent Energy Trust's core business, and there are opportunities to bring in new solutions and new ventures.

A few years ago, the VEIC board faced three choices. The first choice was safety, to play out the organization's mission as-is. The second choice was to risk it all by going for all new business ventures. They chose the third option, which was a hybrid that maintains excellent core services and explores new business ventures. The hybrid is the most difficult to manage.

I advise Energy Trust to think about what Oregonians need in the future as your true north, and organize your company around what is best for the people of the state.

The board asked about VEIC's primary sources of funding. Scott responded that VEIC was created as a small nonprofit consultancy in 1986. Its founders wanted to make sure low-income residents were served. They wanted it to be a nonprofit, but didn't want to rely solely on grants. Funding today is 99 percent fee-for-service. VEIC is not a sole-purpose nonprofit. If I were sitting where you are, I would ask myself if Energy Trust should continue to be a sole-purpose entity in the future.

The board expressed interest in the link to healthcare benefits of energy efficiency. Scott responded that VEIC has a value built in for carbon, but not for healthcare. The first step is to do the research to determine the value.

The board asked Energy Trust staff for an update on the value of solar through the OPUC process. Does it include healthcare considerations?

The board asked Scott which initiatives have been most successful at serving low-income customers. Scott responded that VEIC's work in Washington, D.C., is the best example. The policy is equitable. Low-income residents pay 7 percent of energy bills and get 30 percent of benefits, which means there are more resources to help low-income customers. Local small businesses are included as low-income customers. We also have requirements that create benefits and jobs for low-income residents.

The board took a break for lunch from 12:15 to 1:15 p.m.

Topics to Explore in Anticipation of 2020–2024 Strategic Plan: Large Group Briefing

Mike described the afternoon exercise. Board members will break into small groups to discuss and identify issues that they want to learn more about prior to starting work on the next strategic plan at the 2018 board retreat. Staff will conduct research in the next year on board topics identified today. The exercise is not about making decisions about what will be included in the next strategic plan, and identifying a topic to research over the next year does not indicate the topic will necessarily be considered in the upcoming plan. Mike invited members of the public to participate in the small group discussions and contribute to the list of ideas that Energy Trust staff may explore.

Mike described examples of topics that could be brainstormed with the objective of creating a master list of all issues that could potentially impact Energy Trust during the next strategic plan period. Example topics included policy developments, opportunities to expand Energy Trust's work or understanding more about demographics or other organizations' activities. Mike encourage the board to think about all issues and possibilities that could influence Energy Trust or that Energy Trust could influence during the next strategic planning period.

In the large group discussion after the small group report-outs, the board will consider the full list of ideas and determine which ideas to advance to tomorrow's ranking exercise. Ideas that do not move forward for consideration tomorrow will be held in a parking lot and may still be considered at a later date.

The seed topics in the one pagers do not need to be discussed in small groups. They will all be added to the master list of topics.

Topics to Explore in Anticipation of 2020–2024 Strategic Plan: Small Group Discussions and Reports

Seven small groups formed and brainstormed on potential topics for exploration by staff and the board in the next one to two years.

Commissioner Bloom recused himself from the discussions.

Eddie, Ken and Janine; staff Peter West and Betsy Kauffman:

- Resource cliff, look at new opportunities like low income.
- New kinds of goals needed? Always had an aMW goal or cost-effectiveness goal. What about goals by customer group (low income, accessibility, justice)?
- Diversifying business models, what do we look like as far as research, what do we need to know? We were created under a specific legislative model, what would we need to research to form a subsidiary for example?
- Where can we help best in non-wires solutions, i.e., transmission and distribution, and how we direct energy efficiency; what about locational values?
- Savings associated with electric vehicles (EVs), will there be savings or more load built? Are there opportunities for supporting distribution planning, how can we marry EVs with more distribution support?
- New technologies impacting customer behavior.
- As levels of customer participation grow, are they in fact learning more?
- Low-income data needs for participation, community partners, information goals, market characterization and assessment.
- How does adding storage to solar affect above-market cost, and adding distribution resiliency as a component.
- Community resilience and how that differs community to community.
- What opportunities come out of City of Portland's Home Energy Scoring Ordinance, what can we do with the information?

- Building or permitting department receives incentive to provide Energy Trust information to those looking at construction.
- Federal policy level opportunities to pair up with natural partners (CA, WA) to be prepared to do things on our own.

Susan and Anne Root; staff Spencer Moersfelder and Michael Colgrove:

- Understand value chain, what we offer (NEEA, competitors, attribution as we move higher into sales process).
- Define success in a changing environment.
- Explore value proposition outside current territory (other states, utilities).
- How to generate new ideas at organization using staff, how to decide on those ideas?
- Services provided for those customers who need us economically, can incentive payment to businesses go to a program that then becomes available to their staff?
- How can cost-prohibitive items like windows become more available to lower-income customers?
- Land use and energy use (codes for new construction, telecommuting/need for internet access in rural areas, microgrids to help decentralize utility grid).
- Electrification of homes during time of Internet of Things.
- EVs.
- Create comprehensive energy package for consumers; energy efficiency, EVs and renewable energy very silo'd.

Mark, Debbie K; staff Steve Lacey, Mariet Steenkamp and Jay Ward, with Scott Johnstone:

- Liquefied natural gas exports (impact on capacity in distribution pipelines).
- Utility decarbonization (PGE peaking plants, NW Natural renewable natural gas).
- Disruptive integrated business solutions (Tesla marketing solar tiles and powerwall to vehicle customers).
- Big data analytics (how to reach markets more effectively and quicker).
- Finite resource.
- Assessment of resource potential to underserved low and moderate income communities, using data analytics.
- Best practices in low-income programs as well as providing support to those low-income organizations with variable and/or decreasing funding.
- Storage and demand management.
- Changes in federal policy.
- Expanding cost-effective direction, incorporating healthcare benefits or other externalities not fully integrated into cost-effectiveness model.
- Resiliency and expanded partnerships.
- Access to industrial gas transport customers.

Lindsey, Roger, Heather; staff Amber Cole and Dave McClelland:

- Social cost of carbon (potential source of funding, educational content, value of solar linkage).
- Community solar.
- Solar and storage.
- Exploring new valuation for solar (cost-effective solar?).
- Distribution planning.
- Microgrids and community resiliency.
- Savings within reach (need full briefing, expand it? Are there cost limitations, link back to education).
- Marketing, education and research.
- Demand response and how leveling our demand plays into EV charging, peak demand.
- Driverless cars.

- Federal policy and filling in any gaps, like if ENERGY STAR goes away.
- COUs and any competition between IOUs and COUs.
- Consumer protection, Energy Trust certification to help customers navigate market.
- Renter rights.
- Synergies with other programs, like OSHA recommendations for workers health related to ventilation, how can we tie in there to get word out about our programs?
- Renewable natural gas.
- EVs and operating efficiency (tire inflation).
- Education and messaging, talk about climate.
- Workforce training and preparedness, electrician shortage.
- Solar roofing with Tesla solar tiles.

Alan, John Reynolds; staff Thad Roth, Scott Swearingen and Scott Clark:

- Data (assess current state, cost of capture for low-income customers).
- Electric transportation (more energy efficiency at home means more electricity for car).
- Storage of renewable energy.
- Targeted service territory demand management (encouraging efficiency and renewables investments in places of territory that help utility meet current load or anticipate it).
- Political climate (threats and opportunities).
- Other types and sources of funding (Energy Trust is a 501c3 organization, can take in other types of funding to go with other roles).

Public table Jeremy Litowand Rick Hodges; staff Pati Presnail, Sue Fletcher and Oliver Kesting:

- Role in EVs (sell them and service them).
- Broker and integrator of products and services or information provider given so many new technologies but benefits not well understood or integrated.
- Leverage trusted brand name in retail or online environments, more complex offers.
- Pathways, if you have a participant employer how to access employees.
- Demand response.
- Business model to allow us to be relevant in rapidly changing world.
- Non-energy benefits and linking to value of carbon or particulate matter, how do you then pay for that value (internationals, private foundations, banking, grants, healthcare organizations).
- Resiliency as education provider or collaborator, coordinator, project manager.
- Build a consultant line.
- Exiting markets or transforming engagement in markets that keeps them viable.

Public table JP Batmale, Holly Braun, Anne Snyder Grassman; staff Greg Stokes and Hannah Cruz:

- Exiting a marketplace, thinking about how to do so that the initiative continues (embed market drivers into market).
- EVs.
- Decarbonization.
- Transition to services (moving beyond incentives as rebates).
- Understanding core competencies and leveraging for next five years.
- Integrate better into areas that are silo'd (tariffs, renewable energy, energy efficiency, demand response).
- More financial products.
- Renewables as a resource.
- Storage.
- Exporting expertise (Green Cities Consultant, revenue stream).
- Aggregating customers.
- New market assessments to inform five-year goals.

- More digital services (staff writing code).
- Monetizing non-energy benefits.

Other ideas

- Work with West Coast states for a CAFÉ standard for EVs (Ken)
- Cap and trade impact on Energy Trust (Janine)

The board took a break from 2:40 to 2:55 p.m.

Commissioner Bloom joined the meeting.

Topics to Explore in Anticipation of 2020–2024 Strategic Plan: Large Group Discussion

Board members highlighted their top topics that came out of the small group report-outs, in addition to the topical one-pagers in the board workshop packet.

Top topics for the board in addition to one-pager topics:

- BPA and non-wires (Ken)
- COUs (Ken)
- Big data (Alan)
- Demand response (Debbie)
- Impact of disruptive integrated business solutions (Debbie)
- Storage (Roger)
- Other utilities, states (Debbie)
- Filling federal void with state alliances (Roger)
- Funding evolution, growth (Susan)
- Transportation, charging, vehicles, grid, electricity use (Mark, Janine)
- Expanding considerations for cost-effectiveness, societal values and benefits, how to internalize other societal benefits like resilience, health, location and impact on a certain type of community (Mark, Janine)
- Start with end in mind, what does market state look like in 2025 (Mark)
- Community resilience (John)
- Goals, beyond energy metrics and looking at impact (Eddie)
- Monetize non-energy benefits, get data on that (Anne)
- Solar and storage, distribution grid and locational energy, EVs (Heather)
- Research on low-income population and potential (Ken)
- Education, communication (Ken)
- Energy Trust as a trusted recommendation, like a UL-type approval (Ken)
- Resource cliff research (Ken)
- Cap and trade, forward capacity markets and other ways for built-in revenues in other parts of country that aren't in Northwest yet (non-board member Scott Johnstone)

Topical one-pagers in board workshop packet:

- Expanding funding sources
- Assessing long-term efficiency potential
- Opportunities from data
- Accelerating existing replacement cycles for capital-intensive equipment
- Diversity, equity and inclusion strategy
- Customer education

- Low-income customer approach and collaboration
- Community engagement
- Electric vehicle and transportation
- Distribution system planning

The board will review by tomorrow morning the topic ranking form and start to rank the topics against the criteria.

Mike reviewed the criteria. Probability is how likely or relevant the board believes the topic will be during the 2020-2024 time period, and a high ranking means the topic is more relevant. Ripeness is the topic's level of maturity now or over the next year, and a low ranking means there isn't much new information staff can learn over the next year because the topic is too new while a high ranking means the topic is sufficiently developed so staff can learn something. Magnitude is the level of impact or influence Energy Trust can have on the topic or the topic may have on Energy Trust, including how it contributes to energy goals or the viability of the organization itself. Magnitude can be positive or negative while having high or low impact. Competence means whether staff currently has the expertise or experience, and a high ranking means the topic can easily be researched and understood with existing staff resources while a low ranking means staff may have to seek out others to understand the topic. Research need is how much need does staff have to learn more about the topic or is enough already known about the topic?

The board discussed how each criterion has a different magnitude, which will have an impact on the final ranking each topic receives. Each topic will be ranked by each small group on Friday by each competency as high, medium or low, and each topic is then given an overall high, medium or low ranking. Each small group will present their final rankings to the entire board for a full board discussion.

Public Comment

Anne Snyder Grassman said PGE is discussing how can Energy Trust support PGE's efforts for decarbonization, low-income and diversity, and indicated there seem to be strategic alignments between PGE and the Energy Trust board's discussion today.

Dave Bamford notes Energy Trust is a leader in the nation in energy conservation and energy management.

Adjourn

The meeting adjourned at 4:00 p.m.

Board Strategic Planning Workshop Mercy Corps, Portland, Oregon

Friday, May 19, 2017

Board members present: Susan Brodahl, Heather Beusse Eberhardt, Ken Canon, Roger Hamilton, Lindsey Hardy, Mark Kendall, Alan Meyer, John Reynolds, Anne Root, Eddie Sherman, Steve Bloom (OPUC ex officio), Janine Benner (Oregon Department of Energy Special Advisor)

Board members absent: Melissa Cribbins, Dan Enloe,

Staff attending: Amber Cole, Mike Colgrove, Hannah Cruz, Betsy Kauffman, Corey Kehoe, Steve Lacey, Sue Fletcher, Fred Gordon, Oliver Kesting, David McClelland, Debbie Menashe, Spencer Moersfelder, Pati Presnail, Thad Roth, Mariet Steenkamp, Greg Stokes, Scott Swearingen, John Volkman, Peter West

Others attending: Eric Anderson, Dave Bamford, Scott Johnstone (VEIC), JP Batmale (OPUC), Rick Hodges (NW Natural), Anne Snyder Grassman (Portland General Electric), Holly Braun (NW Natural), Julia Harper (NEEA), John Charles (Cascade Policy Institute), Nick Viele (Facilitator)

Call to Order and Welcome

President Debbie Kitchin called the meeting to order at 8:05 a.m.

Welcome and Day One Recap

The board discussed their feedback on the first day of the workshop. The board expressed the brainstorm felt electric-centric with not much exploration on natural gas opportunities. Another topic not discussed was workforce development, and whether the industry has the right people coming into the workforce and whether the trade allies will be ready for a changing world. Another topic is to go deeper with existing programs. For instance, if the New Buildings program is getting 40 percent of new construction starts, how can the program reach the remaining projects? The board also discussed whether some partnerships may be stressed under the current political environment and whether the topics brainstormed are too focused on what work Energy Trust completes and not with whom it works, e.g., NEEA.

The board expressed the full list of topics received for consideration is very large and the board and staff need to consolidate the list.

One board member reiterated the topic of land use planning, which contributes significantly to transportation planning and electric use. There is a synergy between land use planning and energy planning.

Introduction of Ranking Exercise

Mike introduced the next exercise. Small groups will be form again and rank the final list of topics using the criteria described yesterday. The board will discuss those topics that received different rankings by the small groups. After the workshop, Energy Trust’s Management Team will conduct a day-long retreat in July to set priorities for the organization, including going over the feedback from the workshop. The July board meeting will also have an in-depth discussion on energy savings potential.

Large Group Discussion of Ranking Criteria and Topics

Debbie Menashe described how staff will use the information from the topic ranking exercise. Those topics ranked high will be researched by staff over the next year and a half, and brought back to the 2018 workshop.

The board reviewed each topic for clarity, combining some topics and defining others more specifically. Themes emerged like customer focus, products and service offerings, market trends and funding. The board arrived at a final list of topics for small group discussion on assigning criteria rankings to each topic.

Commissioner Bloom recused himself from the discussions.

Small Group Rank Topics and Report Out

The board, staff and public broke into six groups to rank the topics by the five criteria and then provide an overall ranking of high, medium or low to each topic. Each group’s overall rankings were shared with the full group.

#	Topic	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Overall
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1.	Assess long-term energy efficiency resource (resource cliff, etc.) ^{1-pager}	H	H		M		H	H
2.	New opportunities from data ^{1-pager}	H	H	L	M			?
3.	EVs, transportation, automated vehicles, CNG, etc.	H	H		M			H
4.	Distribution system (electric and natural gas) <ul style="list-style-type: none"> Targeted DSM Non-wires solutions Demand response 	H	H		H			H
5.	Accelerate capital replacement ^{1-pager}	M	L		L			L
6.	Expand opportunities and funding ^{1-pager} , including work with BPA, publics, municipals and utilities in other states <ul style="list-style-type: none"> exporting expertise, consulting 	H	M		L	(H)		M
7.	Diversity, equity and inclusion ^{1-pager}	H	M		H			H
8.	Customer education ^{1-pager}	H	L		L			?
9.	Low-income customer approach and collaboration ^{1-pager} <ul style="list-style-type: none"> assess opportunity participation goal research best practices 	H	M		H			H
10.	Community engagement ^{1-pager} <ul style="list-style-type: none"> Land use coordination 	H	M	H	H		H L	H [L]
11.	Building program pathways from businesses to their employees and suppliers	H	M	L	L		M	?
12.	Solar + storage	H	H	M	H		M	H
13.	Microgrids	L	H	L	H		M	M
14.	Community resilience		L	M	M	L		?
15.	Expand general communication messaging and role beyond program participation	H	L	M	L		L	?
16.	Scan for business models that disrupt energy systems and uses	H	M		M	M	H	M
17.	Fill in federal void, e.g., via multi-state alliances		L	H	L	L	M	L
18.	Expand cost-effectiveness: <ul style="list-style-type: none"> Societal benefits Value to utilities, location Value to communities Value to grid 		HH	H	L	H	H	?
19.	In planning goals, start with the end (2025) in mind <ul style="list-style-type: none"> Use exit strategies in planning 		L		L	H	H	L

20.	Rethinking goals beyond energy use, e.g., market penetration, diversity, location		M		H	H	M	?
21.	Monetizing non-energy benefits (health, water, etc.) (multiple interpretations vis-à-vis cost-effectiveness)		L		M	H	M	?
22.	Energy Trust role in solar, consumer protection, e.g., seal of approval		L		H	L	L	?
23.	Market sources of revenue (cap/trade or other markets)		L		L	L	M	L
24.	Map relationships: <ul style="list-style-type: none"> • Define our value chain • Collaborate with utilities on decarbonization, low-income, diversity • Understand our partners, opportunities 		L		M	H	H	H
25.	Workforce development		M		M	H	L	?
26.	Doing better what we do well		L		H	L	H	L
27.	Internal structure, operations		L		L	L	H	?

The board took a break from 10:15 to 10:30 a.m.

Commissioner Bloom joined the meeting.

Large Group Discussion of Review of Ranked Topics

The board discussed the overall rankings for each topic, assigning a high, medium or low ranking to those topics that had mixed rankings by the small groups.

- Topic on expanded funding opportunities received high, medium and low rankings
 - Low group: assuming continued funding, don't think there is a need now to explore but would be high if the funding becomes jeopardized
 - High group: SB 1149 is 40% of funding, loss of it is significant, building contingency plans starting this year to present to board for next strategic plan
 - Low group: assumed SB 1149 would be extended, lot of legislative sessions between then
 - Medium group: important enough conversation, even if not ripe
 - Conclusion: medium
- Topic on microgrids received high and low rankings
 - Low group: not yet mature, needed more information, not as feasible compared to other topics, complex area that may not be ripe yet, not quite aligned with core mission, utility space
 - High group: related to solar and storage, community resilience and integrating Energy Trust role with distribution planning
 - Conclusion: medium
- Topic on filling in federal void received high and low rankings
 - High group: federal void is happening now and there are opportunities for partnerships now; about preparedness and evolution of industry, worthy of staff time
 - Low group: federal agenda is unclear, ripeness issue
 - Conclusion: low, vote low 6, high 5
- Topic on starting with the end in mind received high and low rankings

- High group: about sunset in 2025 and ensuring you have this conversation
- Low group:
- Conclusion: low; vote low 7, medium 4
- Topic on monetizing non-energy benefits received low, medium and high rankings
 - Low group: interpreted it as selling the benefits
 - High: Hard to distinguish from “expanding cost-effectiveness metric” and changing metrics on what is being valued; others rolled it into “expanding into cost-effectiveness metric” and ranked that one high
 - Medium: thought it similar to irrigation modernization and bringing to table other funders and for Energy Trust to be open when the opportunity comes up
 - Conclusion: topic tabled due to different definitions being applied to the topic, staff will come back with a more concrete definition for the board to consider
- Topic on better defining our value chain received low, medium and high rankings
 - Low group:
 - High group: understanding who competitors are, where partnership opportunities will be, “proofing” for the future, value of the organization, examples listed are important to our partners and therefore important for us to understand
 - Conclusion: high, vote yes 8, medium 2
- Topic on doing better on what we do well already received low and high rankings
 - High group: in some areas, achieving deeper participation will take work and we should research to understand how
 - Low group: consider as business as usual, and if we do the things we ranked high, this will happen
 - Conclusion: low, vote high 4, low 7

Mike: This was a good conversation. It’s important for staff to hear what you’re thinking to take back to the office. Staff will refine the list and order it. There are still questions about the rankings for some of the topics. Staff will work with the Strategic Planning Committee on next steps.

The board commented each topic was viewed differently by each group, and it would be nice for staff to better define the timing and definitions around the topics. The board noted each group goes down a different pathway for their conversations and not everyone is part of that.

Mark said will digest the results of the ranking exercise, and work on next steps and refining at upcoming Strategic Planning Committee meetings. He said the Management Team retreat will also inform this list of priority actions. He invited staff to share their thoughts with the board as the process continues.

Mike said this is not a decision-making phase. Staff will further explore some of these topics to inform the board’s deliberations as development of the next strategic plan starts.

Public Comment

Commissioner Bloom provided feedback on the topics explored by the board.

When energy efficiency is talked about as a finite resource, it’s reassuring to see the board push back on that. The board wants to set Energy Trust goals higher. That’s great and good to discuss whether goals are set correctly. The brainstorming brought up good ideas, like harnessing data, working through employers and leveraging other financial tools. The board wants to keep pressure on the bread-and-butter activities, and look at some pie-in-the-sky ideas. However, the board seems to want to redefine cost-effectiveness to include non-energy benefits. This is not a board decision but an OPUC process. The OPUC cost-effectiveness measure exception process is working well. 2016 was a record year for savings. Before there is an exploration of redefining anything, I want to understand the problem. What problem would it fix and how would ratepayers

benefit from the change? Does staff have the time to start researching this subject? I don't see it as a cost-effective use of Energy Trust strategic planning efforts. The board discussed other avenues to raise money for Energy Trust. There need to be reasonable criteria and boundaries on how to approach this. It's a warranted discussion and Energy Trust should work with OPUC on those boundaries. For example, activities focused on energy efficiency and where goals don't suffer or lose equity to ratepayers. Transparency is key, Energy Trust needs to keep funds separate. Also, in regards to exploring electric vehicles, it's too early to define how best to apply ratepayer funds to the EV market. We will know more as the next strategic plan gets closer. The OPUC doesn't see this topic as a high priority for Energy Trust. If Energy Trust would be doing work on EVs, Energy Trust should think about how best to integrate EV charging with load.

The board asked about Commissioner Bloom's remarks about EVs, and whether it's because EVs are not plug-in appliances. Commissioner Bloom said he doesn't see penetration of EVs in Oregon being that significant for a while.

The board said their impression with the non-economic benefits for cost-effectiveness is the need to monetize or quantify them. Commissioner Bloom said that's what he understands it to be but it's a monumental research project, and he is not sure staff at Energy Trust or the OPUC has time to research it. And no matter what the conclusion, there will be a lot of pushback from a lot of different sides. The board noted there may be other resources in other states who can inform these discussions.

Holly Braun described the topic "beginning with end in mind," which was to meet the ultimate goal of transforming energy efficiency and markets of energy efficiency. Mike notes he interpreted it that way, too, as using exit strategies.

Holly described the low-income topic, which is about there being programs available but this being an area that can be improved in terms of Energy Trust's influence it can have. A board member noted his group interpreted it the same way, about how to design programs to be better utilized by low- and moderate-income customers.

Summary of To-Dos and Next Steps

Staff will combine the various takeaways from the workshop and come back to the board. The only to-do for the board is to consider whether the dashboard provides the right type and level of information for the board. The July board meeting will include discussion on how to move forward on the various topics identified by the board at the workshop.

Closing Comments

The board provided closing thoughts on the workshop. They noted that while the workshop was blue sky thinking and strategic discussions, the view staff as performing extremely valuable work. The board said the retreat was well organized and liked the integration of staff into the discussions. The board was impressed with the meticulous detail from staff and how they paid attention to how people engage. The board thanked Scott Johnstone for his keynote presentation and participation during the workshop exercises.

Mike thanked the utility partners who joined, as well as stakeholders and the public who contributed. It's critically important for Energy Trust to hear their thoughts. Mike thank the board, noting staff learned a lot about what's important to the board.

Adjourn

The meeting adjourned at 11:50 a.m.

s/s Alan Meyer
Alan Meyer, Secretary