2015-2019 Strategic Plan – Emerging Topics Discussion

Conservation Advisory Council – March 12, 2014

At the next CAC meeting, the last agenda item is a discussion focused on issues and opportunities emerging from the 2015-2019 Strategic Planning process. Our goal for this session is to hear from you by receiving your feedback on our current list of strategic questions we plan to address within the plan.

In preparation for this discussion, we ask that you please review the attached documents;

- Board briefing paper from the February 26th meeting titled "Strategic Plan Discussion Topics and Opportunities"
- 2010-2014 Strategic Plan

As you read the first paper, please keep the following questions in mind

1. Are these the right questions?
2. Are we missing anything?
3. What resources, references, or examples would you suggest we use as we address each question within the draft plan?

If you're tight on time, focusing on sections 1B and 2 A, B, C will be most helpful.

We plan to have a very brief presentation, leaving time to focus on group discussion and feedback. In addition, we will invite your written comments on the topics and will provide additional detail regarding timing, etc. at the meeting.

Looking forward to a great discussion!

Briefing Paper
Strategic Plan Discussion Topics and Opportunities

February 13, 2014

Energy Trust is developing a strategic plan for 2015-2019. Before developing a draft plan, Energy Trust invites discussion of topics that should shape a plan, i.e., those that may or should drive Energy Trust programs and operations over the coming five years.

Energy Trust anticipates that a draft plan will be issued for public comment after the Board's June, 2014 strategic planning retreat. Comment would then be solicited, and a final plan would be adopted in October, 2014.

I. Context

Energy Trust administers funds collected by utilities for electricity and natural gas conservation, electric market transformation and renewable energy programs. Since 2002, these programs have saved billions of dollars by reducing consumers' energy bills and helping utilities avoid or defer investment in new generation, transmission and distribution facilities. The discipline for these programs comes from analysis and planning that carefully weigh economic and environmental costs and benefits before making energy investments. The services delivered by these programs are delivered by thousands of private businesses distributed throughout Oregon. The result, now rooted in many years of practice, is a system that is widely supported by government, utilities, business and interest groups, and which produces clean, reliable and affordable power. This system, and Energy Trust's role in it, is the basic asset that Energy Trust's next strategic plan will leverage.

At the same time, as investment advisors remind us, past performance is no guarantee of future returns. A number of developments are rearranging the landscape in which Energy Trust programs will operate in the coming years:

- The energy conservation resource is changing. Mainstays such as home insulation and efficient lighting continue to play important roles, but after 30 years of energy conservation programs there are fewer of these things to do. Meanwhile, new measures involving innovative operations, maintenance, behavioral approaches and technologies are emerging. Community-based initiatives are being explored, in which energy, transportation, land and water use are viewed holistically. To what degree should these innovations be integrated into Energy Trust programs?
- Oregon's energy system is de-carbonizing. The Sixth Northwest Power Plan predicted that energy conservation, renewable energy requirements and reduced coal plant emissions would reduce Northwest carbon emissions below 1990 levels by 2020. So far, this prediction is on track. Continuing the trajectory, however, will take sustained and even accelerated performance from low-carbon energy resources such as renewable energy and conservation.
- The economic underpinnings of the traditional energy utility business model are beginning to shift. Load growth has been modest or negative for several years, locally and nationally. Increasing quantities of renewable energy that run for part of the day is making the business of owning baseload plants more difficult.
- New load management tools are emerging to help integrate new renewable energy generation and baseload generating plants: Smart Grid technologies that allow more active management of energy supply and demand; more extensive demand response

programs that use pricing and other incentives to reduce energy demand in peak periods; technologies that store surplus energy for use at times of high demand; and markets that pay more for flexible, fast-ramping services. How can energy conservation and renewable energy programs leverage these new tools?

- With hourly metering of homes and businesses, lower-cost information recording techniques, and customer-focused analysis software, energy management is becoming more feasible. In some cases, these innovations may become a deeper source of savings. But the best approaches, data sources, and management strategies differ for different customers, and are complicated by a flood of new opportunities and ideas.

The basic question is this: how should Energy Trust efficiency and renewable energy programs build on current strengths and capitalize on this changing landscape? To illuminate this question, Energy Trust undertook several analyses:

- A "situation analysis" prepared by staff discusses Energy Trust's current mission and goals, and identifies issues that Energy Trust's current programs are likely to face in the 2015-2019 time period.
- The survey of strategic ideas from other energy conservation organizations reports on how other organizations are approaching missions that resemble but also differ importantly from Energy Trust's mission.
- In addition, Executive Director Margie Harris engaged policy and business leaders in a series of conversations about Energy Trust's work and role.
- Energy Trust has in some cases done additional analysis to help understand whether particular issues belong in strategic planning. Energy Trust consultant Dave Hewitt prepared a paper summarizing zero net-energy goals in California; and a paper prepared by staff explores peak-load management opportunities.

Energy Trust also identified operational and strategic issues in staff SWOT workshops, which are reflected below. Energy Trust expects to complete further analysis of several of these topics between now and June. These analyses and discussions with interested parties will inform the board's consideration of a draft strategic plan in June, 2014.

The issues discussed below do not address Energy Trust management, infrastructure or delivery model. We do expect these considerations to arise in the draft and final strategic plans as we determine how to meet strategic goals.

These topics also do not address whether the current cost-effectiveness framework is appropriate, a question that is involved in the Oregon Public Utility Commission docket no. UM 1622. These topics do address the role of the current cost-effectiveness framework in balancing considerations in section 1.B.

II. <u>Discussion Topics and Opportunities</u>

1. Energy Trust goals for 2015-2019 given current resource assessments, funding and authorities

A. <u>Energy efficiency goal:</u> Assuming no major change in projected availability of energy savings, Energy Trust forecasts show annual achievable energy savings leveling off and beginning to decline over the next five years. Acknowledging that these are forecasts, subject to unforeseen economic, technological, policy and other developments, they raise several planning issues:

(1) Are forecasted annual savings levels, built upon known, commercially available and cost-effective resources, the most appropriate basis for a 2015-2019 goal?
(2) Energy Trust resource assessments assume no limit on funding for cost-effective energy savings, yet there are legal limits on funding for large energy users. To what degree will these limits constrain Energy Trust's ability to achieve its goals? How should these constraints be managed?

B. How can Energy Trust help grow the energy conservation resource?

(1) New technology and methods: Energy Trust currently funds NEEA to monitor and help develop emerging technologies. Should additional efforts, through NEEA or otherwise, be undertaken?
(2) Reduced costs: Low gas prices and other factors point to the need to reduce costs to maintain a robust conservation resource. Should Energy Trust put a high priority on reducing costs?
(3) Reaching under-served markets: Energy Trust programs try to reach everyone who pays public purpose charges, including rural communities, renters, multifamily dwellings and low-income households. Would deeper penetration of these markets add to the conservation resource? With what implications for cost-effectiveness? What tools and strategies should be used to reach these markets?
(4) Cost-effectiveness: The current cost-effectiveness framework has various sources of flexibility. How this flexibility is used could influence Energy Trust measures and programs that entail more risk, or produce important non-energy benefits. Is this enough flexibility to reach 2015-2019 goals?
(5) A risk budget: Should part of Energy Trust's budget be reserved for measures and efforts that are not demonstrated to be cost-effective, as a way to explore new technologies, or reach under-served populations? Should Energy Trust establish zero-net energy goals for new construction, for example? What might be an alternative framework for Energy Trust accountability?
(6) Behavior: Would more emphasis on behavioral approaches to residential energy conservation produce significantly more or less costly savings, as it has in industrial and commercial strategic energy management?
(7) Weighing trade-offs: Some of the above considerations pose trade-offs. How should efforts to reduce customer cost be balanced with efforts to find new technologies, investment in non-cost-effective measures, and efforts to reach under-served markets? Should Energy Trust be driven by energy savings volume above other considerations, or pursue these objectives simultaneously?

C. Renewable energy goal for 2015-2019: Energy Trust's early forecast for the next five years is 15 average megawatts (aMW) of renewable generation, which translates to three aMW per year. This is a more conservative forecast than the last strategic plan, reflecting changes in Oregon's energy tax credits and sustained low prices for power paid by utilities to renewable producers. It assumes continued Energy Trust emphasis on early-stage support for a range of technologies—biopower, hydropower, wind and geothermal—and standard incentives for solar. We expect to measure success according to new metrics relating to impacts on renewable energy markets and project development.

(1) Is it still appropriate for Energy Trust to emphasize support in early stages of project development?
(2) Is it still reasonable to support a range of technologies—biopower, hydropower, small wind, geothermal and solar?

(3) Is it reasonable to measure success in terms of market and project-development considerations?
(4) Given current funding constraints should Energy Trust develop visions for success and long term "exit strategies" for success for each technology to help frame the short term decisions for funding allocations between technologies?
(5) Given the pace of change in renewable energy policy, should Energy Trust continue to limit its support to projects with commercially available technologies? Should it pilot approaches that support policy innovation?
(6) Should Energy Trust play a larger role in articulating a positive vision for distributed generation and a clean energy future in Oregon?
(7) How might we better take advantage of other environmental efforts happening in the state and their intersection with energy?

2. Should Energy Trust's scope be broader?

A. Aspirational goals. California established zero-net energy goals for commercial and industrial efficiency without necessarily having either a cost-effective path or the infrastructure to achieve the goals, which they are building now. Is there value in having aspirational goals such as this, perhaps with longer-term (ten-year) time horizons? Should Energy Trust incorporate a zero-net energy goal even though programs to achieve it cannot be proven cost-effective today?

B. Beyond efficiency and renewable energy generation.
(1) Greenhouse gas goals: The State of Oregon and energy conservation organizations in other states (e.g., Vermont Energy Investment Corporation, Austin Energy, and the State of Connecticut) have greenhouse-gas reduction goals. Should Energy Trust? Should Energy Trust work with compressed natural gas, transportation or other customer groups to help achieve such goals?
(2) Reaching under-served customers: Should Energy Trust have an explicit goal to return benefits to all customers who pay public purpose charges?

C. Peak load management: Utility investments in generation, transmission and distribution facilities are typically geared to serve demand that occurs only in certain peak periods. Delaying or reducing this investment by saving energy in peak periods could produce significant savings. It is increasingly difficult for utilities to manage fluctuations in supply and demand. How might energy efficiency, distributed renewable generation and demand response programs fit together to lower ratepayer costs? Should Energy Trust play a role in helping to manage load, for example:

(1) Offering higher incentives for energy efficiency measures that reduce peak demand more than other measures?
(2) Tracking and reporting estimated contributions to peak savings? Would such estimates add value to Energy Trust programs, the board, OPUC or utilities?
(3) As the value of load management becomes clearer, working with electric utilities on integrated controls for water heating, industrial refrigeration, and other flexible loads that save energy while balancing wind?
(4) Exploring opportunities to use load management technology such as thermal storage to provide a market for intermittent resources?
(5) Exploring the use of integrated distributed generation and DSM programs, including Smart Grid, to help manage demand and support electric system resiliency to withstand storms or other disruptions?

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3. **How can Energy Trust ensure that its strategic plan appropriately complements plans of state, regional and other organizations?**

   Energy Trust's strategic planning process will incorporate input from other organizations and interested parties at several points. The Oregon Public Utility Commission and the Oregon Department of Energy participate on Energy Trust's strategic planning committee. Comments and consultation on this document is actively sought. Similarly, public input will be invited on a draft strategic plan. Energy Trust will actively consult its advisory councils in this process.

   At the same time, energy planning is occurring at many other levels. The Oregon Governor's office has a 10-Year Energy Plan. The Oregon Department of Energy, the Northwest Power and Conservation Council, the Northwest Energy Efficiency Alliance and others are engaged in strategic planning. Are there ways in which Energy Trust should complement these planning efforts apart from the consultation and comment processes that are already anticipated?

2015-2019 Strategic Plan Development Schedule

Key Dates

February 26	Board meeting, schedule and overview
March 12	CAC, RAC Strategic topics discussion
May 14	Board meeting, introduction of draft as preparation for retreat
June 13-14	Board retreat, discussion of draft plan
July 30	Board meeting, update on feedback and retreat follow up
October 1	Board review and approval of final plan