

Interview Summary: Northwest Energy Coalition Alma Pinto, Lauren McCloy & Jeff Bissonnette



Category: Energy Advocate Stakeholder

Key Takeaways

1. Trends impacting utilities and Energy Trust that will drive change in and increased demand for energy efficiency:
 - There are multiple changes anticipated in the region's energy supply: Lower Snake River Dam replacement, build out of transmission network to meet load growth, better market integration, expansion of the energy imbalance market and movement toward the day ahead market.
 - Energy costs and consumer prices will continue to increase due to the investment necessary to meet carbon emissions targets and market volatility. High costs will be a new normal. This makes energy efficiency essential. We need to be ahead of the current processes we have (e.g., avoided cost docket) to get in front of dramatic price hikes.
 - Customer-side resources are an important part of the solution. Proactively and efficiently scaling energy efficiency will help offset increased system costs and should continue to be a robust planning consideration at with Energy Trust staff and the board.
 - Additional measures and technologies that aren't cost-effective or commercially viable now will be needed by 2030 and beyond. Changing market transformation work and program structuring over the next 6 years would allow them to be incorporated once viable.
 - Decarbonization, resiliency and energy efficiency goals are being integrated along with a strong consideration for affordability and equity. There is need and opportunity to address these issues more comprehensively. For example, Energy Trust should think long-term about its role with community resources and customer-side resources, and consider developing programs focused on community resiliency in times of emergencies.
2. Barriers to carbon reduction goals that Energy Trust could influence:
 - Workforce development will be incredibly important to achieve energy efficiency and renewables growth targets.
 - Increased equity will be needed to meet efficiency goals, e.g., people with fewer resources, outside of urban areas, with language barriers, etc. Targeted outreach and working with community-based organizations will be important.
 - Relative to cost-effectiveness, Energy Trust is well-positioned with its partnerships, implementer role and technical expertise to take a lead role facilitating changes to cost-effectiveness. The exceptions process alone is evidence that it is not working. We need to reevaluate the traditional way of thinking about efficiency now that we are in a decarbonizing world. Energy Trust's non-partisan role continues to be of unique value.

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3. Given the dynamism in the energy space and the time span of the strategic plan, it will be important to periodically check in with the plan to make sure Energy Trust is proceeding in a way that makes sense. Similarly, there should be check-ins with progress against energy efficiency and emissions reductions targets to ensure the plan will make the progress needed to meet those goals.
4. Energy Trust should demonstrate to stakeholders that it has heard them and should be more transparent in decision-making processes. For example, Energy Trust could reflect what stakeholders shared in memo form and link that to program or policy decisions and the strategic plan. The Commission's decision memos are an example.

Interview Summary: Citizens' Utility Board

Bob Jenks, Jennifer Hill-Hart & John Garrett

Category: Energy Advocate Stakeholder (Consumer)

Key Takeaways

1. Trends impacting utilities and Energy Trust that will drive change in and increased demand for energy efficiency:
 - Oregon decarbonization policies are significantly impacting customer and utility costs and will continue to do so. Recent legal decision on Climate Protection Plan (CPP) does not change the mandate for gas utilities to decarbonize but does delay and complicate it.
 - Weatherization and energy efficiency will be more valuable than ever as costs hit the system.
 - There is a shift in focus to capacity as the primary concern when it comes to energy efficiency and renewables. This changes the value proposition of certain measures depending on end-use timing (business vs residential).
 - The most challenging scenario for electric utilities is managing winter heating loads due to electrification of natural gas heating end uses and more intermittent non-emitting winter energy supply.
 - Incentives that encourage the expansion of natural gas infrastructure (e.g., natural gas-heated homes, appliances) will decrease, as there is greater pressure to decarbonize.
 - Transportation-related electricity loads and load management will be evaluated to ensure new load is balanced on the system and doesn't exacerbate peaks.
 - Robust demand response will be necessary to manage electricity loads, and there is a role for Energy Trust alongside the utilities and Northwest Energy Efficiency Alliance.

2. Risks to further decarbonization efforts:
 - Customers could be stranded on the natural gas system, especially customers with low incomes.
 - Renewable natural gas and renewable hydrogen are still in development but it is questionable whether they can effectively replace fossil natural gas due to unproven technologies and competitive environment.
 - There are needed changes in transmission and markets:
 - Energy markets must be able to track resources so buyers know what kind of energy they are purchasing in order to meet their emissions obligations.
 - Energy markets and transmission need to be done on a regional basis, not a utility basis.
 - Backlash from rate increases could dampen the commission's willingness to fund additional work that increases rates. Even though Energy Trust is cost-effective, those

Interview Summary: Citizens' Utility Board Bob Jenks, Jennifer Hill-Hart & John Garrett



costs are front-loaded. However, increased rates increase the value of efficiency measures or off-setting use with small scale renewables.

- Changes in net energy metering agreements could reduce the value of distributed solar for customers. Solar needs to be paired with storage to be valuable to the grid.
- Shortage of workers is an existing condition and future risk to support needed additional scale of energy efficiency and renewables.

Category Summary: Electric Utilities

Participating Utilities:

1. PacifiCorp (Pac)
2. Portland General Electric (PGE)

Key Takeaway / Insights

- 1. The rate of changes is far greater than expected.**
 - This relates to the clean energy transition, climate variables, environmental justice, and load growth. For example, PGE saw its 10-year load forecast double in less than six months, as the demand for AI and social media are driving expansions in data centers.
 - Abnormal energy flows have been at record levels for the past three years and are expected to continue, especially with the El Niño effect.
- 2. The electric utility challenge is balancing reliability, resiliency, and affordability with the decarbonization transition.**
- 3. The customer relationship with electricity is changing.**
 - There is significant customer rate pressure (13-20% increases in 2024), with more expected given clean energy investments.
 - With electric rates rising and electricity playing a growing role in people's lives, the average customer's relationship with its utility and electricity is changing. It will be important for customers to understand how the upfront costs of the clean energy transition will eventually reduce the energy cost percentage of their overall wallets. This will require education.
 - Customer digitalization will expand, as they seek to have greater control and interaction.
- 4. In light of utility 2030 goals (reduce emissions by 80% from a base level average by 2030 while maintaining reliability and mitigating cost) and forecasted electrification, utilities are pursuing multiple avenues to achieve their goals:**
 - Virtual Power Plant (VPP), including Demand Response, Storage, Solar, Customer-sided resources
 - Distribution System Planning
 - Distributed Energy Resources (DERs)
- 5. Energy Trust is a valued partner of electric utilities in meeting their goals, both historically and looking to 2030.**
 - By working closer on the supply and demand sides of the equation, peak load reductions can be achieved cost effectively. Working interconnectedly, even co-deployment, ensures optimal success for programs like microgrids, small-scale community-based renewables, demand response and others.
 - Energy Trust and the electric utilities are rooted in their communities. It will be important to work together to maintain trust, and streamline and coordinate activities, so as not to confuse customers and deliver cost efficiently.
 - One utility noted they value the wealth of customer, community and measure data Energy Trust can bring to the table when targeting groups together.
 - New methods need to be tested, especially to reach historically underserved customers. It will be important for all organizations to have a measurement and impact focus, to ensure funds are being effectively invested.

Category Summary: Electric Utilities



- With considerably more funding sources available, Energy Trust and utilities with other organizations have an opportunity to collaborate for the best interest of customers. If done clumsily, the opportunity to provide the best value to customers may be missed.

Participating Stakeholder Organizations:

1. Avista
2. Cascade Natural Gas
3. NW Natural

Key Takeaway / Insights

- 1. Natural Gas utilities remain committed to their decarbonization goals and will continue to pursue emission reductions.**
 - Rule changes will impact the mechanisms they use to meet their targets.
 - Renewable fuels and energy efficiency have roles in decarbonization. They seek to drive scale for both.
 - The natural gas utilities see innovation in energy efficiency programs as key to achieving their goals:
 - Support advancement of emerging technologies (e.g. gas heat pumps).
 - Energy efficiency program design (e.g. behavioral energy efficiency, targeting priority customers).
- 2. Significant load growth from new customers is not expected; however, electrification projections are below expected levels. Consequently, renewable fuels and efficiency will both be key to meeting load demand over the next six years.**
 - The biggest driver of load is still space heating.
 - The biggest swings are with industrial customers. Process heat will be a swing, depending on economic development.
- 3. Electrification faces significant challenges, and gas fuels will continue to have an important role going forward.**
 - The expense of the transition is greater than what policymakers anticipated. Increased utility rates and wider price inflation will reduce the appetite for investment in the necessary infrastructure.
 - The natural gas infrastructure bolsters energy system resiliency, which is being reflected by a shift in customers toward low- and dual-use.
 - There is a deficit in workforce readiness to install and maintain new electrical technologies at scale.
 - Electrification will strand low-income and other hard-to-reach customers on the gas system, adding to the economic pressures they already experience.
- 4. Energy Trust's partnership is foundational to meeting decarbonization and equity goals.**
 - Program co-branding with Energy Trust provides additional credibility.
 - Energy Trust's flexibility, responsiveness, and innovative approach helps gas utilities navigate rules and requirements changes.
 - Having a single resource for all energy customers helps link customers seeking to reduce electricity use to efficiency measures that reduce their natural gas use as well.
 - There is an opportunity to increase partnering to serve hard-to-reach customers. Better coordination will maximize effectiveness and ensure customers aren't confused by uncoordinated offerings. The gas utilities have strong relationships with Community Action Partnership agencies (CAPs), organizations charged with eliminating the causes and conditions of poverty, and work directly with them to support programs for low-income customers.

Interview Summary: Business Oregon, Michael Held & Colin Sears

Category: Business (Manufacturing)

Key Takeaways

1. The energy transition is driving rapid change. Additional trends and issues will impact economic growth in Oregon:
 - The political shift towards decarbonization will continue with more Inflation Reduction Act (IRA)-like programs. There is also interest in replicating federal CHIPS act-like investments within other manufacturing sectors. Complimentary programs would then be created at the state level. (CHIPS is a federal act authorizing significant new funding for semiconductor manufacturing)
 - Energy supply and energy sources are of increasing concern for companies looking to locate or expand in Oregon. Companies more frequently want to ensure their energy source is carbon neutral. Seeing new projects with energy demand at record levels.
 - For economic development, greater connectivity between Business Oregon and energy providers will be paramount. How are we meeting those large and small users' energy needs? How is the energy needed and where is it needed? Conversations about having X amount of energy needed by Y date are more complicated and difficult.
 - There is potential for increased manufacturing in Oregon due to productivity gains that can be accomplished here and rising labor costs overseas. New manufacturing will incorporate more automation. This shift will require more energy-intensive processes and equipment that will increase load [on the utility system].
2. There are specific sectors and companies growing in Oregon. This creates opportunities for Energy Trust to work with expanding manufacturers and emerging partners and suppliers:
 - With the next wave of investment in semiconductors in Oregon, expecting \$40 Billion investment over the next four years. Of 15 planned projects, about a third are large and will be really energy intensive. Those companies pursuing large projects are really sophisticated.
 - Other emerging investment areas that create opportunities:
 - Recycling and other circular industries that use recycled materials, like concrete production
 - Renewable energy, solar manufacturing, and batteries
 - Off-shore wind development in Oregon, California, Washington, and British Columbia
 - Daimler Trucks - will be producing electric long-haul trucks in Oregon
 - Carbon capture startups

Interview Summary: Business Oregon, Michael Held & Colin Sears

3. The energy transition is occurring rapidly and could result in major disruption and dislocation for business customers, particular small to medium size businesses. Energy Trust has an opportunity to support and increase participation and expand offerings for this segment:
 - Energy efficiency adoption would increase if Energy Trust could reduce the investment burden for business customers, especially small to medium sized businesses. This could be through longer amortization, higher subsidies or other creative approaches. With more support, estimate adoption could increase by as much as 50%. Interest is there.
 - Develop programs with higher incentive levels targeted specifically at small businesses, or a scale of incentives within programs to progressively incent smaller businesses.
 - Make programs easier for customers to digest; provide energy planning advisors or partner more with technical service providers to help businesses identify and pursue opportunities. This is especially impactful for small manufacturing businesses that have a difficult time dedicating resources to develop energy-related plans.
 - Offer resiliency-related programs. There is significant concern among small and medium size manufacturers around the impacts of shutting down operations due to outages caused by wildfire or other stress on the utility system. (Large manufacturers plan for this very carefully already.)

Interview Summary: Home Depot, Art Christianson

Category: Business (Commercial / Retail)

Key Takeaways

1. Energy and energy efficiency are important to Home Depot from an Environmental Social Governance (ESG) and EPA Scope 3 (carbon emissions indirectly generated) reporting perspective. While Home Depot recognizes that the biggest impact they can have is via the products they sell, moving customers to buy energy-efficient products is not a significant part of their strategy or something they focus on.
 - Energy efficiency is not usually top-of-mind for their customers.
 - Customers are focused on feature-sets (not energy efficiency) and price, so Home Depot will continue focus on delivering the products and feature-sets customers want via the channel(s) they prefer (in-store, online, etc.) at the best price point they can.
 - Home Depot does not do a lot of planning around utility trends but does want to position itself to support utility programs and pass incentives on to their customers and remain competitive with their peers. They have engaged with stakeholders to help guide rules and program development based on what they've seen work or not work, and Home Depot's capabilities.
2. Relevant trends in the next six years :
 - Further expansion of utility programs focused on non-lighting products.
 - A continued need for approach to retail that delivers straight forward and consistent information across all channels as customers continue to leverage multiple channels for a single transaction.
 - Significant impact from Inflation Reduction Act programs (IRA) – waiting to see how IRA is implemented state-to-state and impact on customer demand (assortment, volume, etc.).
3. Suggestions for Energy Trust and Utilities:
 - Make programs as frictionless as possible for consumers by minimizing burden on customer to supply data and focusing on true mid-stream programs like Energy Star Retail Products Platform Program (ESRPP) where retailers are provided with incentives from utilities and other energy efficiency program sponsors to change their inventories and sell increasing numbers of ENERGY STAR certified products.
 - If you are going to collect data as part of a program, make sure it is purposeful and actionable.
 - Make sure rebates/incentives are sized in relation to the product cost to drive consumer behavior.

Participating Stakeholder Organizations:

1. American Council for an Energy Efficient Economy (ACEEE)
2. Consortium for Energy Efficiency (CEE)
3. Clean Energy States Alliance (CESA)
4. National Resources Defense Council (NRDC)

Key Takeaway / Insights

- 1. Over the next 6 years, energy efficiency will be critical to meet increased energy demand and balance the system. The demand for energy efficiency will accelerate, but it will need to be more targeted to accomplish over-arching greenhouse gas emissions reduction, reliability, and affordability goals.**
 - Energy efficiency's scope or definition will expand to include electrification, electric vehicles, demand response, and resiliency.
 - There will be a decline in the traditional kilowatt-hour approach to energy efficiency in favor of time- and location-specific foci at reducing energy use.
 - Energy efficiency and renewables programs will need to be treated as an integrated portfolio of offerings that work in concert towards decarbonization, rather than as siloed measures. It will be important to consider how they work together to decarbonize and balance the energy system.
 - Issues of community resiliency and environmental justice will also need to be considered in developing and administering a portfolio of energy efficiency and small-scale renewables programs. An equity or environmental justice framework should incorporate issues like workforce development, historically underserved communities, and those displaced by the energy transition (e.g., fossil fuel industry workers).
- 2. Meeting the growth in demand for energy efficiency and small-scale renewables will require additional resources and innovation in program structure and delivery. While innovations are being tested, traditional energy efficiency program models should not be discarded. Both are needed.**
 - New sources of funding are providing the ability for energy efficiency to accelerate.
 - Historically underserved communities need to be targeted with focused resources. This will require innovation in how cost-effectiveness is measured, and a broadening of the benefits measured to include more non-energy components.
 - Programs and benefits should be stacked, coordinated, and delivered as a "one-stop-shop".
 - Fuel-neutral solutions, like weatherization and continuous commissioning of buildings, need to be expanded. Where possible programs need to align with the natural capital cycle of buildings. To reach scale, programs need to be inserted into existing systems, rather than operating outside of them.
 - Minimize friction for customers. True mid-stream market programs, online marketplaces with rebates embedded in the price, and other turn-key solutions will increase customer up-take of energy efficiency measures.
 - Develop partnerships with community-based organizations to target historically underserved customers. This is a diverse group that will require tailored approaches aligned with organizations that are known and trusted by the target audience.
 - Build and leverage relationships with trade allies and incentivize them to drive scale.

3. Alignment of energy efficiency and small-scale renewables programs to meet broader decarbonization, resiliency and equity will create new spaces where Energy Trust could choose to engage:

- Non-energy benefit measurement and cost-effectiveness test customization.
- Scaling of resiliency-focused technology like batteries as part of solar installations.
- Electric vehicle programs that promote charging at times that help balance the grid.
- Support for medium and heavy duty EV's that would improve air quality in low to moderate income corridors.
- Expand consumer education and research on innovative approaches. Energy Trust's network of partnerships, technical expertise, and mandate to serve utility customers positions it to add value in this space.

4. Risks exist for energy efficiency and small-scale renewables programs:

- Buy-in from political leadership and commissions to fund programs at a time when customer rates are increasing, and customers are experiencing the impacts of inflation.
- Net metering agreements becoming less generous to the consumer, which could decrease investment in solar.
- Availability of a sufficiently sized and trained technical workforce to install and maintain energy efficiency measures and small-scale renewables. This can also be viewed as an area of opportunity for Energy Trust to make an equity-focused impact.
- Impacts of electrification and an increase in renewables to the current transmission system and energy markets. Development of a regional transmission organization will be key.
- The energy transition exacerbates inequality and leads to unintended consequences:
 - Fossil fuel workers or those who work in other carbon-related industries.
 - Those who could be left behind to pay for the gas infrastructure because they aren't able to make investments in solar or electrification.