WILLIAM D. RUCKELSHAUS CENTER

UNIVERSITY OF WASHINGTON

Final Summary



Beyond Net Zero Advisory Committee

By the William D. Ruckelshaus Center

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I. Introduction & Overview

In 2021, Washington State's largest utility,¹ Puget Sound Energy (PSE), set an aspirational goal of achieving net zero carbon emissions and beyond by 2045. PSE's new CEO, Mary Kipp, sought support from the William D. Ruckelshaus Center (the Center) to design and facilitate a collaborative and open process for obtaining broad stakeholder input into their Beyond Net Zero Carbon Initiative.

PSE was particularly interested in the Center's expertise in collaborative process methodology, because the Beyond Net Zero Carbon Initiative involves complex policy issues, divergent viewpoints, and potential impacts to diverse customers and communities. PSE asked the Center to design an approach that recognizes the urgency of the climate crisis, provides benefits and opportunities for frontline communities and populations, and enhances the state economy, while maintaining reliability, safety, and affordability.

The Center worked closely with PSE to identify and recruit representatives of key constituencies from diverse sectors, backgrounds, perspectives, and demographics to serve on an Advisory Committee to help shape and inform the initiative. In advance of the Committee's first meeting, the Center interviewed committee members to identify important issues, information needs, and to get input on constituencies to include on the Committee.

Beginning in February 2022 with a seminar-style workshop using virtual meeting technology, the 21-member Beyond Net Zero Carbon Advisory Committee held five full-day meetings in its first year. The Committee continued its work through four meetings in 2023. This summary provides an at-a-glance overview of meeting topics, proceedings, and committee outputs, along with the Committee's work products: *Guiding Principles for the Clean Energy Transition,* an *Electric Call to Action*, and a *Gas Call to Action*.

¹ PSE serves more than 1.5 million customers across 10 counties



Beyond Net Zero COMMITTEE ROSTER

Name	Affiliation(s)
Arnold, Deputy Mayor Jay	City of Kirkland
Becker-Dippmann, Angela	Pacific Northwest National Labs
Cho, Commissioner Sam	Port of Seattle
Clark, Garry	Economic Alliance, Snohomish County
Collins, Shawn	The Energy Project
Edmonds, Bill	Northwest Power & Planning Council
Fleetwood, Mayor Seth	City of Bellingham
Gregoire, Christine	Challenge Seattle; Former Washington State Governor
(Year 1 Chair)	
Hartman, Neil	United Association of Plumbers & Pipefitters
Hines, Scott	IBEW Local 77
Hirsh, Nancy	Northwest Energy Coalition
Hubbard, Lynn	Community Member
Jacobs, Josh	PSE
Kennedy, Marcus	Pacific Ridge / DR Horton
Kipp, Mary	PSE
(Year 2 Chair)	
Lekanoff, Rep. Debra	Lekanoff LLC
McLerran, Dennis	Cascadia Law Group
Packard, Ben	UW Earth Lab
Robinson, Bennetta	American Federation of Labor & Congress of Industrial Organizations
Schaffert, David	Thurston County Chamber of Commerce
Shestag, Steve	Boeing
Suarez, Dennis	Washington Soldiers Home

FACILITATORS	WILLIAM D. RUCKELSHAUS CENTER
Ferrell, Tye	Lead Facilitator
Page, Chris	Senior Facilitator for Projects & Strategic Initiatives
Shulman, Phyllis	Associate Director



FEBRUARY 10

- Welcome, Introductions
- Presentations
- Discuss committee goals & information gaps

APRIL 19

- Review of Committee Charter
- Discuss technical vs. adaptive challenges
- Presentations and discussion

JULY 18

- Energy resource adequacy in the Pacific NW
- Gas planning at PSE
- Deep decarb's implications for PSE gas system
- PSE gas decarb strategy and tactics

SEPTEMBER 22

- Clean Energy Transformation Act
- Climate
 Commitment Act
- Clean Fuel Standard
- Inflation Reduction Act

NOVEMBER 10

- Developing a targeted electrification strategy
- Policy priorities to decarbonize for 2023
- Who's impacted + how to equitably mitigate
- Guiding Principles
 & Call to Action

- Overview of Puget Sound Energy
- PSE's customer demographics, attitudes, & perceptions
- PSE's gas and electric operations
- Regulatory landscape facing gas and electric utilities
- PSE's goals and pathway to BNZ carbon

- Maintaining reliable energy supply & meeting peak demand
- Transmission constraints
- Role of distributed energy resources
- Building frameworks around equity
- Siting reform for renewables & transmission
- Incorporating carbon & equity costs into PSE bottom line
- Heat pumps & hydrogen
- Workforce development

- Desired outcomes and impacts of the Committee's work
- Crucial Qs about PSE's BNZ Carbon strategies & the plans to implement them
- PSE's near-term implementation priorities
- Policies needed to enable a successful transition

- Equitable implementation of policies
- Communications, messaging, & public awareness
- Gas rate base, siting, & permitting policy reforms
- Guiding Principles and Call to Action

- Committee understanding of PSE operational constraints, its BNZ strategy, & regulatory landscape
- Input on committee goals
- Identification of information needed

- Committee acceptance of Charter
- Targeted input on distributed energy resources
- Initial list of stakeholders impacted, potential impacts to each, and mitigation strategies
- Committee agreement on goal of full electrification, but with gas still needed to bridge transition for PSE
- Input on the transition to electrification & how to minimize negative impacts for stakeholders
- Draft set of desired Committee outcomes & impacts
- Input on PSE near-term BNZ implementation priorities & complimentary policies
- Input on potential partnerships for PSE to achieve its beyond net zero carbon goals
- Draft Guiding Principles (electrification, gas decarb)
- Draft Call to Action
- Suggested policy priorities at the state and federal levels to support PSE transition to BNZ carbon



JANUARY 24

MARCH 28

JULY 25

OCTOBER 24

Presentations with Q&A:

- · Climate Commitment Act
- 2023 Legislative Session Update

Presentations with Q&A:

- Updates from 2023 Legislative Session
- Climate Commitment Act Update
- How PSE Is Using the Guiding Principles

Presentations with Q&A:

- Update on Legislative Session
- Updates on Clean Energy Implementation Plan and Gas Integrated Resource Plan
- Climate Commitment Act and Decarbonization of Gas System

Presentations with Q&A and Discussion:

- Beyond Net Zero Carbon Advisory Committee Retrospective
- Introducing PSE's New Leadership Team Members

- Guiding Principles and Call to Action for the Clean Energy Transition
- Looking Back at 2022 and Forward to 2023

Committee Member Presentation and Discussion:

- Workforce Development
- Communications and Engagement
- Partnership Opportunities
- Each Advisory Committee Member's Most Important Advice for PSE Leaders
- Questions for Advisory Committee from PSE Leadership
- Key Takeaways and Looking Ahead

- Agreement on final Call to Action and Guiding Principles
- Guidance to PSE:
 - o On messaging: since rates must increase to fund the clean energy transition, focus on costs of NOT acting and on savings for customers in a net-zerocarbon future.
 - Look at the big picture of the state's regulatory and policy landscape to see how different programs can work together.
 - o Consider transportation electrification and its benefits (e.g., electric vehicles acting as distributed energy storage systems)

- Several committee members supported PSE's proposed legislation, helping to expedite permitting and siting of transmission lines.
- Key guidance for PSE in workforce development:
 - o Adopt "high road" agreements for labor standards to ensure livingwage jobs and access to those for previously marginalized communities.
 - o Involve organized labor in construction projects, which makes them (on average) 31% safer than non-union projects.
 - o To create a pipeline of skilled workers: partner with workforce training programs, community and technical colleges, the nimbler higher ed institutions, and apprenticeship programs; consider recruiting formerly incarcerated persons.
- Suggestions for how best to put federal funding for decarbonization projects to use.

- Encouragement to leveraging partnerships in the transportation sector, local private sector, and tribes (for co-developing projects and permitting/siting).
- Guidance on mitigating impacts to vulnerable communities.
- Strong encouragement to use demand response tools.
- Advice on communications and engagement with customers (e.g., "use plain language").

Committee advice to PSE leadership:

- Continue engaging with stakeholders across the spectrum.
- Integrate equity across implementation strategies.
- Consider workforce development as an equity issue.
- Prepare customers for the clean energy transition.
- Stay focused on renewable energy implementation programs.
- Be the innovator and take risks, such as helping to fund transmission.
- Collaborate with tribes, cities, counties, and ports to decarbonize the system.
- · Invest in flexibility and resilience.
- Be open and transparent.
- Include low-income individuals when making decisions.
- Present less and listen more.
- Leadership, vision, and accountability matter.
- Even with a supportive policy landscape, the marketing and regulatory structures need development, so build capacity for the co-development of solutions.
- There is more work to be done to map community benefits, including workforce opportunities.

Guiding Principles & Calls to Action

As the Advisory Committee neared the end of its first full year building understanding of PSE operations and plans, discussing challenges and opportunities, and providing guidance, members expressed interest in generating a tangible work product that could codify its top-level input. The Committee brainstormed several thoughtful considerations during its time together, including:

- Cataloguing various categories of stakeholders and potential impacts to each, along with ways to mitigate those potential impacts.
- Ideas for partnerships that PSE might leverage, and how those partnerships might support the transition to Beyond Net Zero Carbon.
- Key messages for PSE's communications, information sharing, and education of stakeholders, governments, residents, and community organizations.

The culminating work product of its 2022 conversations, spearheaded by Governor Gregoire, took the form of *Guiding Principles for the Clean Energy Transition*, an *Electric Call to Action*, and a *Gas Call to Action*, included here.

II. Guiding Principles for the Clean Energy Transition

PSE commits to:

1) Lead with equity²

- a) Lead with equity across all aspects of the business, including but not limited to, resource planning, rate design, system planning, program design, communications, outreach, infrastructure investment, and workforce training and apprenticeships.
- b) Seek to mitigate impacts to named communities Highly Impacted Communities³ and Vulnerable Populations⁴ from the clean energy transition by working *with* not *on* the communities most impacted.
- c) Develop methodologies and metrics to evaluate the equity impacts of planning and operations.

² PSE is working to ensure all customers benefit from the transition to clean energy, which requires a dedicated effort to consider the benefits and burdens to highly impacted and vulnerable populations. In this work, we embrace the principles of energy equity by addressing accessibility, affordability and accountability.

³ As defined by CETA, "a community designated by the department of health based on the cumulative impact analysis required by RCW 19.405.140 or a community-located in census tracts that are fully or partially on "Indian country," as defined in 18 U.S.C. Sec. 1151."

⁴ As defined by CETA, vulnerable populations means "communities that experience a disproportionate cumulative risk from environmental burdens due to: Adverse socioeconomic factors, including unemployment, high housing and transportation costs relative to income, access to food and health care, and linguistic isolation; and sensitivity factors, such as low birth weight and higher rates of hospitalization."

d) Actively pursue infrastructure investment in red-lined or traditionally marginalized communities in a way that improves service performance and increases local economic development opportunities.

2) Responsibly steward natural resources and living systems

a) Work with partners to build a resilient energy system that reduces environmental impacts.

3) Be accountable and transparent

- a) Prioritize transparency and stay open to input.
- b) Prepare and partner with the public for changes that are coming and demonstrate measurable progress along the way. Ensure that customers and the public understand why decarbonization is needed, the reasons for forecasted energy demand, how to conserve energy, what changes are being made to the energy system, why, and how those changes are expected to unfold.

4) Partner and collaborate

- a) Develop partnerships and collaborations with other utilities, labor, researchers, nonprofits, businesses, tribes, community-based organizations, and local, state, and federal governments to develop innovative solutions to:
 - Decarbonize PSE's energy supply and enable carbon emission reductions beyond PSE's own energy supply through strategies such as transportation electrification, development of new renewable resources, transmission capabilities, and roll out of other carbon reduction technologies, and
 - Avoid worker displacement.
- b) Collaborate with other utilities to develop shared goals for decarbonization and implement cost-effective and reliable carbon reduction programs and clean energy strategies where PSE has overlapping service boundaries.
- c) Engage with the state legislature, Utilities and Transportation Commission, local jurisdictions, and other partners to develop public policies and a regulatory framework that enables a clean energy transition to occur quickly and successfully. (Transmission and facility siting reforms will be part of those efforts as there is a foreseeable shortfall in clean, non-emitting energy resources.)
- d) Partner with customers to drive behavior change and foster community-led innovation.

5) Innovate, Adapt, Transform

- a) Engage in a continuous effort to monitor, evaluate, and adopt clean energy innovations and strategies developed by others.
- b) Develop new programs and approaches to address energy peaking issues and carbon emission reduction. This could include piloting and scaling up of successful programs such as time of use rates, vehicle to grid storage and energy management, battery

- storage, home and community solar programs, carbon capture and sequestration technologies and more.
- c) Promote organizational culture change at all levels that will enable PSE to successfully innovate, adapt to the challenges of the low-carbon transition, and transform its business model as necessary. This includes a commitment to:
 - Evolve away from separate gas and electric lines of business into a company with a singular focus on clean energy.
 - Embrace a learning culture that is willing to take informed risks when necessary to meet or exceed PSE's beyond net zero carbon goal.
- d) Anticipate and manage skills gaps and workforce training to transition the workforce to a decarbonized system and include workers from highly impacted areas and vulnerable populations within PSE's service area and beyond.

6) Act with Urgency

- a) Engage with investors, policy makers, tribes, and other partners to accelerate decarbonization strategies in a way that does not further disadvantage vulnerable populations and highly impacted communities.
- b) Identify near-term priorities and partnerships and implement them to build trust and credibility.
- c) Leverage existing technologies to the extent possible to effect immediate carbon reductions.

III. Electric Call to Action:

- 1) Pursue targeted electrification as soon as and to the greatest extent possible with the recognition that in the long-term this requires development of new wind, solar, storage, and demand management resources, along with transmission corridors and prioritization of equity and reliability. Near term work includes identifying priorities for gas to electric conversion, updating PSE's decarbonization study, electrification pilots, and developing a targeted electrification strategy based on the pilot outcomes.
- 2) Develop incentive programs, including grants, that enhance the low-carbon transition, especially for low- and moderate-income customers.
- 3) Work in partnership with the heating, cooling, and home construction industries to inform consumers of opportunities to save energy and incentivize them to install heat pumps, hybrid heat pump technologies, and heat pump water heaters.
 - a. Target elimination of any remaining home oil or baseboard electric heating and ensure that all air conditioning installations have heat pump capability to allow winter heating efficiency gains. This includes making sure industry partners promote these technologies, develop servicing capabilities, and share in the benefits of incentive programs.

- b. Promote the use of all-electric and hybrid heat pumps, where appropriate.
- c. Develop opportunities for demand management, including as an option for customers to manage cost.
- 4) Incentivize home and commercial solar development along with utility-scale facilities. This may include battery storage capability, home-to-grid, and vehicle-to-grid technologies as they mature.
- 5) Develop partnerships with ports, the trucking industry, truck drivers, heavy-duty vehicle retailers, and others to create the infrastructure and incentives needed to transition heavy-duty transportation to battery electric and fuel cell technologies. In an interim transition period, there may also be targeted opportunities for partnerships around the use of lower carbon liquid and gaseous fuels, including renewable natural gas and renewable diesel. PSE will also prioritize partnerships with communities living along major transportation corridors to address their exposure to local air pollution.
- 6) Partner with others in the energy industry on siting reform and to develop new wind, solar, storage, demand response, and renewable electricity capacity, including transmission and distribution capacity. In addition, with all partners, identify policies and regulation that reduce or remove barriers to accelerated development of these technologies in a responsible way.
- 7) Partner with consumers and the public to decrease overall energy demand and peak energy demand in particular—for example, through demand management, education, incentives, and real-time metering and cost information. Educate consumers and the public about the potential impacts of climate change, based on different scenarios of decarbonization and warming.

IV. Gas Call to Action:

- Decarbonize the existing system as rapidly as feasible with supplemental renewable natural gas (RNG) and electrolytic hydrogen sources and ensure that they can be manufactured and delivered in a safe and sustainable manner that supports PSE's beyond net zero goals. Explore the future viability of other clean alternative fuels and examine the best uses for RNG and electrolytic hydrogen.
- Reduce natural gas demand by seeking policies to incentivize heat pump and hybrid heat pump replacements, including heat pump water heaters. Accelerate energy efficiency, demand management, and storage investments to reduce current and anticipated winter capacity constraints.
- 3) Partner with energy intensive businesses to meet mutual decarbonization goals, including transition to renewable energy alternatives and strategic prioritization of natural gas.

- 4) Support upstream and downstream methane reduction initiatives, including stronger enforcement initiatives by regulatory agencies, with the goal of reducing emissions from methane leakage to zero as rapidly as possible.
- 5) Protect low-income customers from increased costs and provide significant new incentives that make heating and other appliance transitions possible for them.
- 6) Identify policies and regulations that reduce or remove barriers to decarbonizing the gas system and ensure that it remains safe and reliable as throughput is reduced.
 - a. For example, work to change state law to allow utilities to incentivize fuel switching that reduces carbon emissions.