

# Milwaukie City Council Meeting PGE's Clean Energy Plan

Kristen Sheeran Ph.D., Senior Director of Sustainability Strategy  
and Resource Planning

June 20, 2023



# PGE at a glance

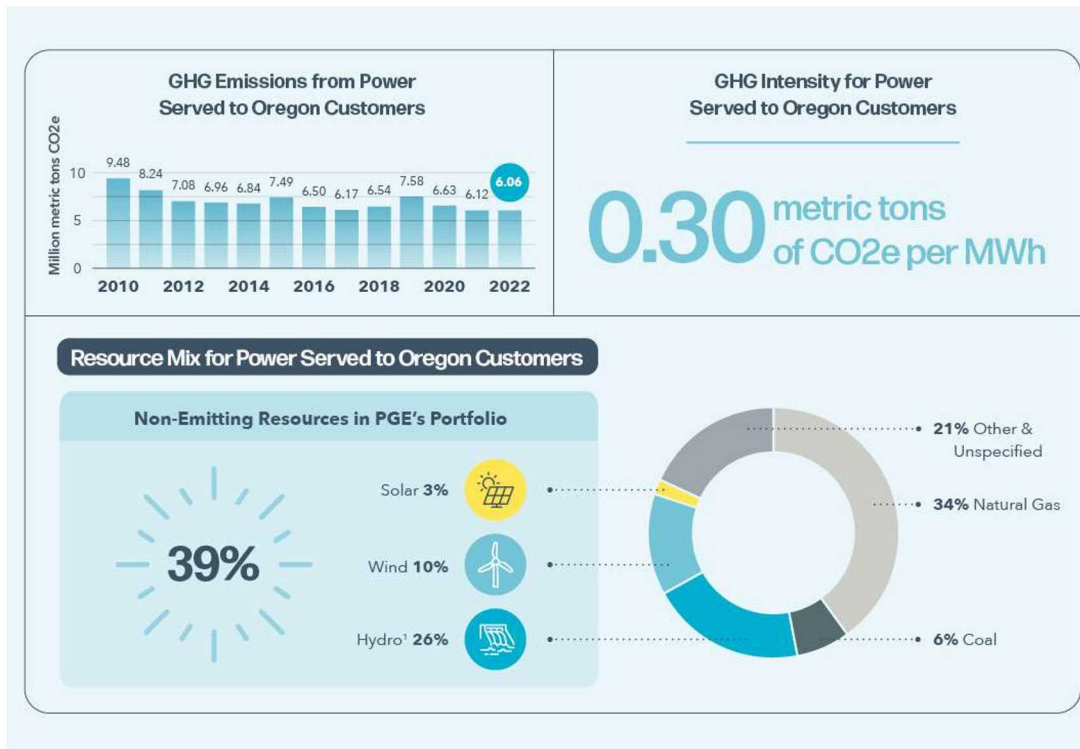
## Quick facts

- Vertically integrated electric utility encompassing generation, transmission and distribution
- Serving more than 900,000 retail customers within a service area of approximately 1.9 million residents
- Roughly half of Oregon's population lives within PGE service area, encompassing 51 incorporated cities entirely within the State of Oregon
- Roughly two-thirds of Oregon's commercial and industrial activity occurs in PGE service area



# 2022 PGE emissions & targets

Emissions are already 25% below HB 2021 target baseline level\*



## Emissions targets & goals

### HB 2021 Targets:

- 80% reduction below baseline for retail sales by 2030
- 90% reduction below baseline for retail sales by 2035
- 100% reduction below baseline for retail sales by 2040

### Voluntary Target:

- Net zero emissions company-wide by 2040

\*Baseline = 8.1 MMTCO2e as established by ODEQ based on average of 2010-2012 PGE reported emissions. Based on energy served to retail customers within the State of Oregon, as required by Oregon Department of Environmental Quality (ODEQ). Some or all the renewable energy attributes associated with PGE's Basic Service Mix may be sold, claimed, or not acquired.  
1. This includes power purchased from Bonneville Power Administration

All 2022 emissions data is preliminary and subject to change as internal review procedures are performed. Certain emissions information is subject to review and approval by the ODEQ and Environmental Protection Agency.

# Oregon HB 2021: 100% clean electricity



## Policy applicability

Investor-owned utilities (IOUs) – PGE and Pacific Power  
Electric Service Suppliers (ESSs)  
Idaho Power and consumer owner utilities are excluded from the bill



## Technology neutral

Based on absolute emissions as reported to ODEQ  
All decarbonization tools in play  
Avoids choosing winners and losers among technologies and allows utilities to integrate new technologies as they mature



## Customer affordability

Cost cap on compliance costs  
Utility investments will continue to be examined by the Commission for prudence  
Federal tax incentives will mitigate resource costs



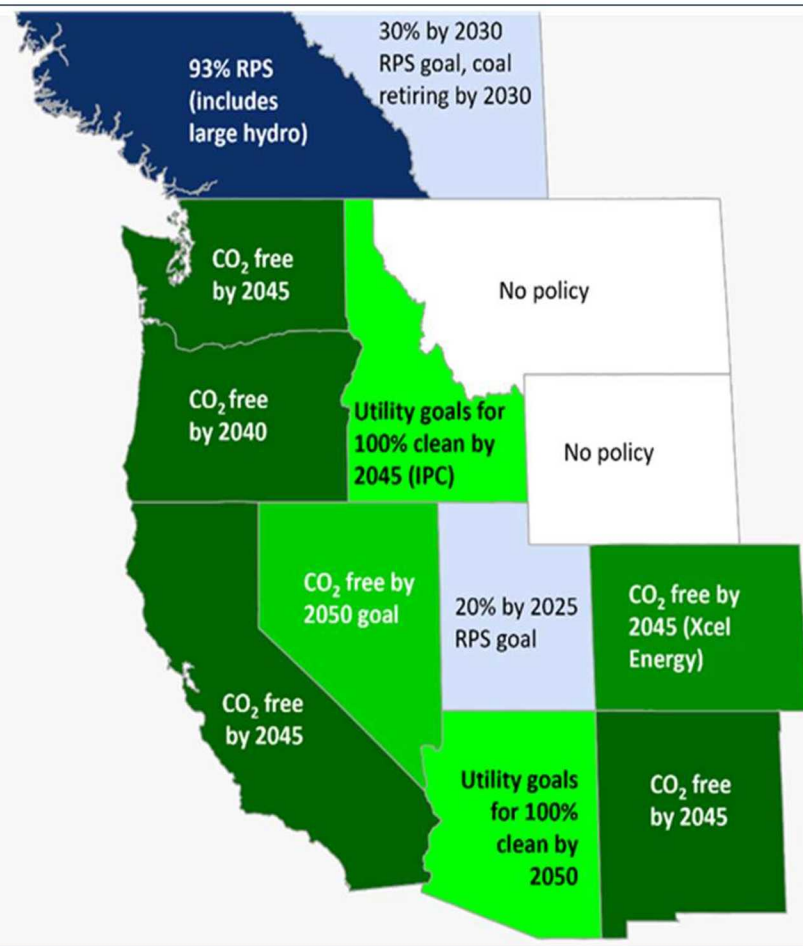
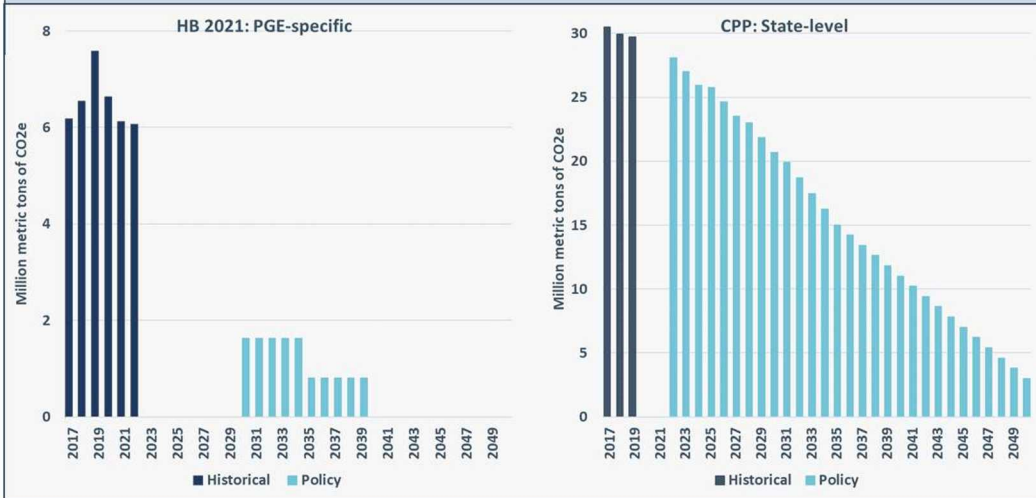
## System reliability

Temporary reliability pause if unforeseen resource variability impacts a utility's ability to meet the targets  
GHG emissions reduction activities are integrated into long-term planning with Commission oversight

# Decarbonizing during highly dynamic period of change

Federal, state, and regional decarbonization efforts pose significant challenges:

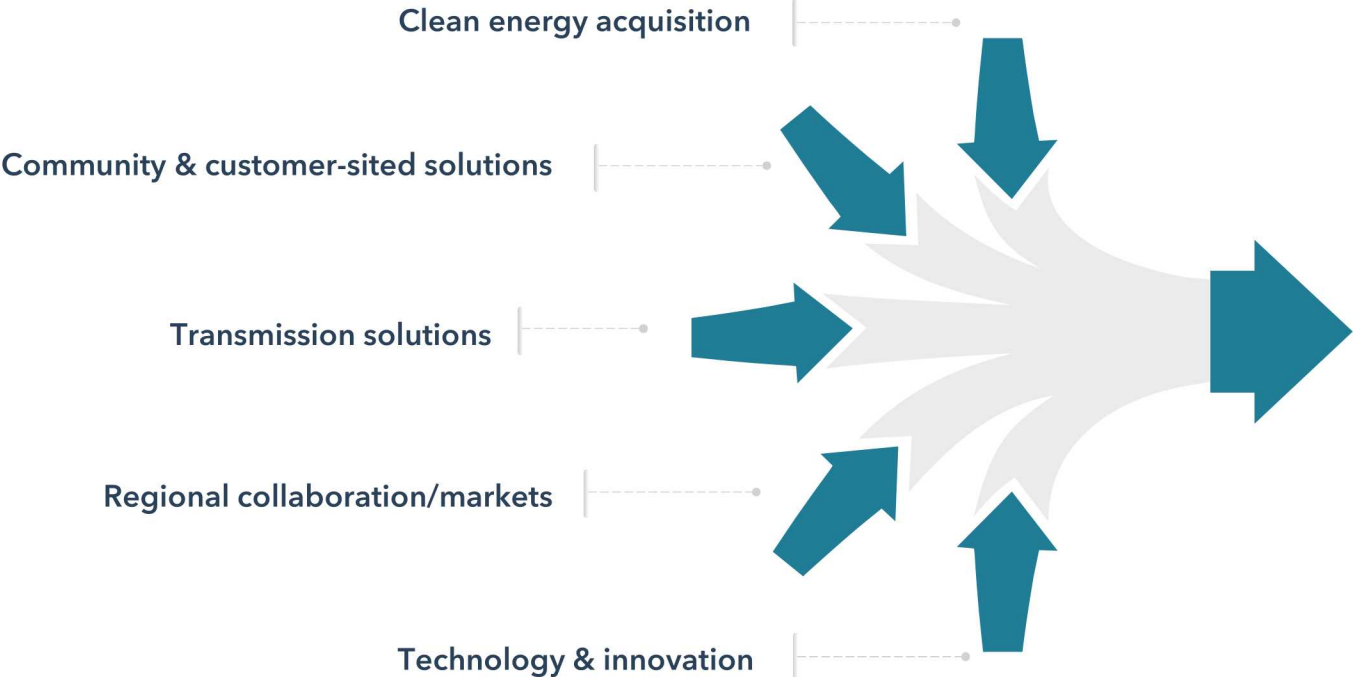
- Forecasting load
- Resource competition
- Supply chain and labor market dynamics
- Transmission constraints
- Resource adequacy
- Predicting rate of technology development and costs



# PGE's path to 2030 strategy

Our decarbonization strategy is multi-faceted to support reliable and affordable power

## Enabling strategies



## GHG reductions

- 1 Acquire sufficient non-emitting energy & capacity to replace fossil fuel generation/purchase
- 2 Systematically reduce fossil fuel generation / purchase for retail service
- 3 Actively work with customers to manage their energy wallet, maintain affordability

# Community-based renewable energy (CBRE)

Renewable energy system that connect to distribution or transmission systems

- Typically, < than 20MW
- Provide direct community benefits (resilience, bill savings, etc) through community ownership or community benefits agreement.
- Evolution of growing interest in small scale renewables and non-wire grid solutions.

**RFP for CBREs to be issued later this year.**



Beaverton Public Safety Center Microgrid

# Key Takeaways: Clean Energy Plan

---

2030 emissions targets can be met by technologies and resources that are currently known and commercially available. Pathways to 2040 will require further development of non-emitting resources to meet the region's energy and capacity needs.

---

PGE forecasts a significant renewable energy need of >3000MW by 2030.

---

Achieving emissions targets reliably and affordably requires access to a wider geographic diversity of resources and the transmission solutions to access them

---

Transmission constraints drive a greater role for customer-sited resources, including demand response, energy efficiency and community-based renewable energy

---

PGE's natural gas plants will continue to play a role in helping meet our resource adequacy needs during the clean energy transition.

---

If we can access federal, state, and local funding opportunities to support decarbonization on our system we can mitigate customer price pressure during the transition.

---

PGE's success will require continued collaboration with our customers, communities, and stakeholders and with a wide range of leaders at all levels of government.



# Questions?

