

Transitioning to 100% Clean Electricity

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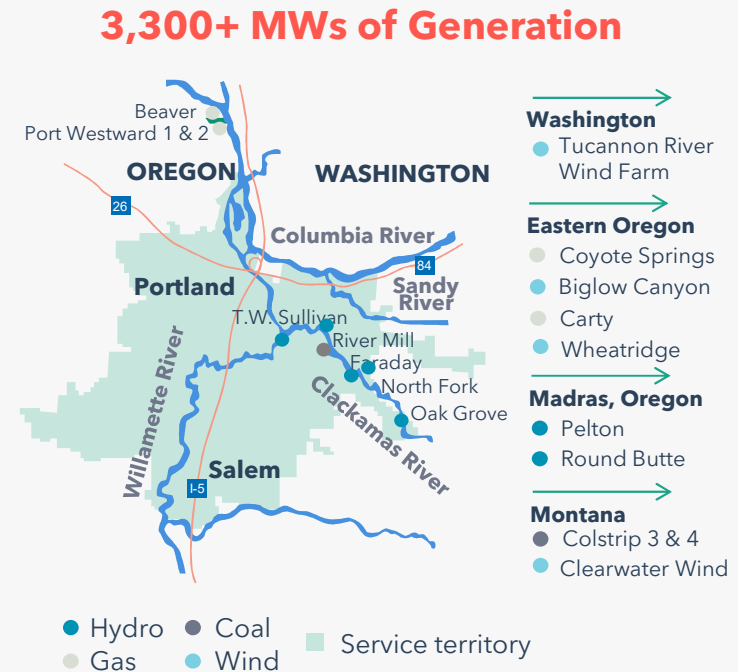
NW Offshore Wind (NOW) Conference
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PGE at a glance

Quick facts

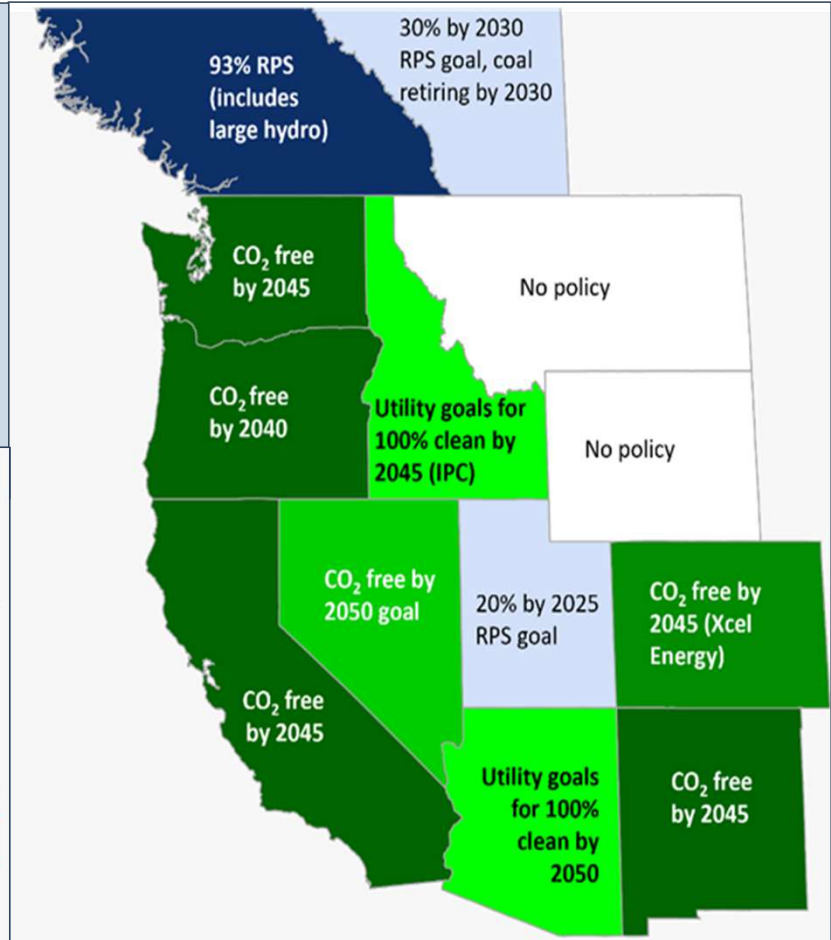
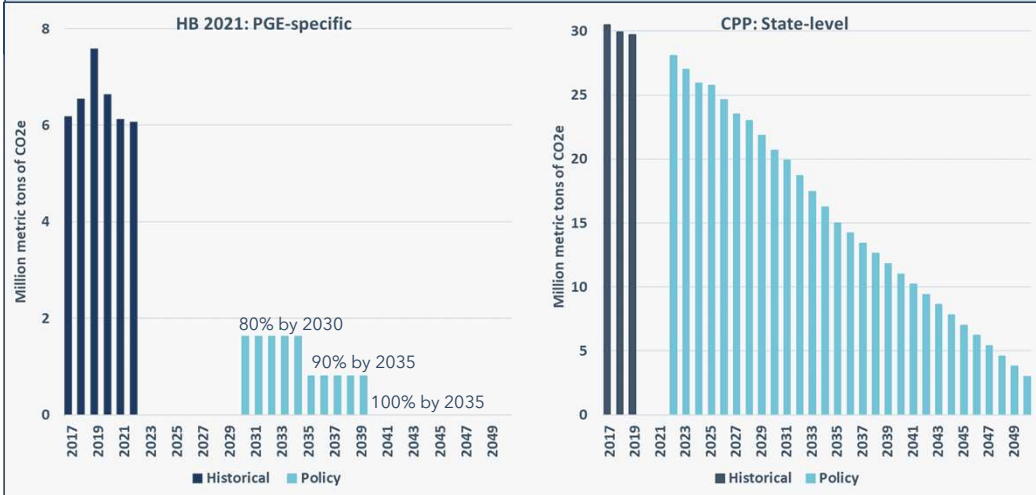
- Vertically integrated electric utility encompassing generation, transmission and distribution
- Approximately 900,000 retail customers within a service area of 2 million residents
- Roughly half of Oregon's population lives within PGE service area, encompassing 51 incorporated cities entirely within the State of Oregon
- 75 percent of Oregon's commercial and industrial activity occurs in PGE service area



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



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



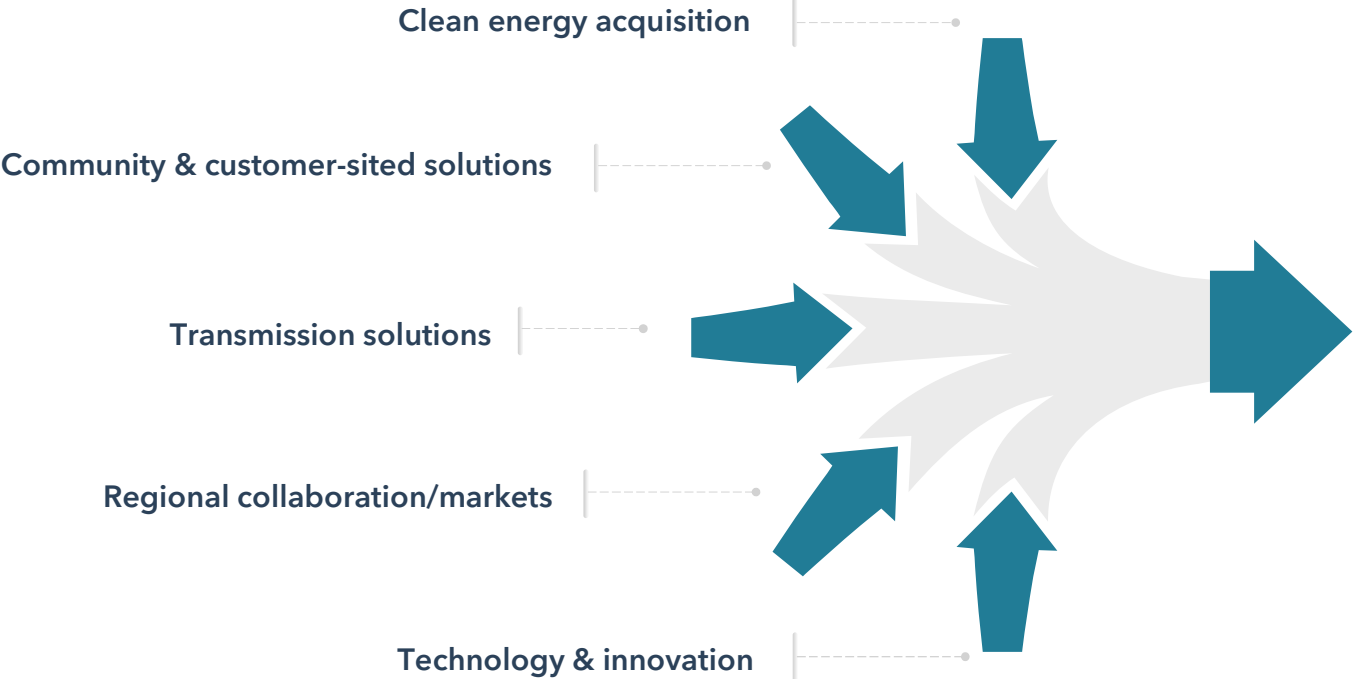
System reliability

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

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

PGE Clean Energy and Integrated Resource Action Plan

The CEP/IRP Action Plan has five main components

- 1 Customer Actions
- 2 Community Based Renewable Energy Action
- 3 Energy Action +3200 MW in RFPs
- 4 Capacity Action
- 5 Transmission Action

Key Takeaways: Offshore Wind

- PGE needs resource and geographic diversity
- Path to 2030 targets can be met with commercially available technologies - but 2035 and 2040 goals will require new technologies to become cost-effective
- Significant resource and capacity need to replace baseload characteristics of gas
- OSW currently modeled to become potentially cost-effective in early 2030s

Questions?

