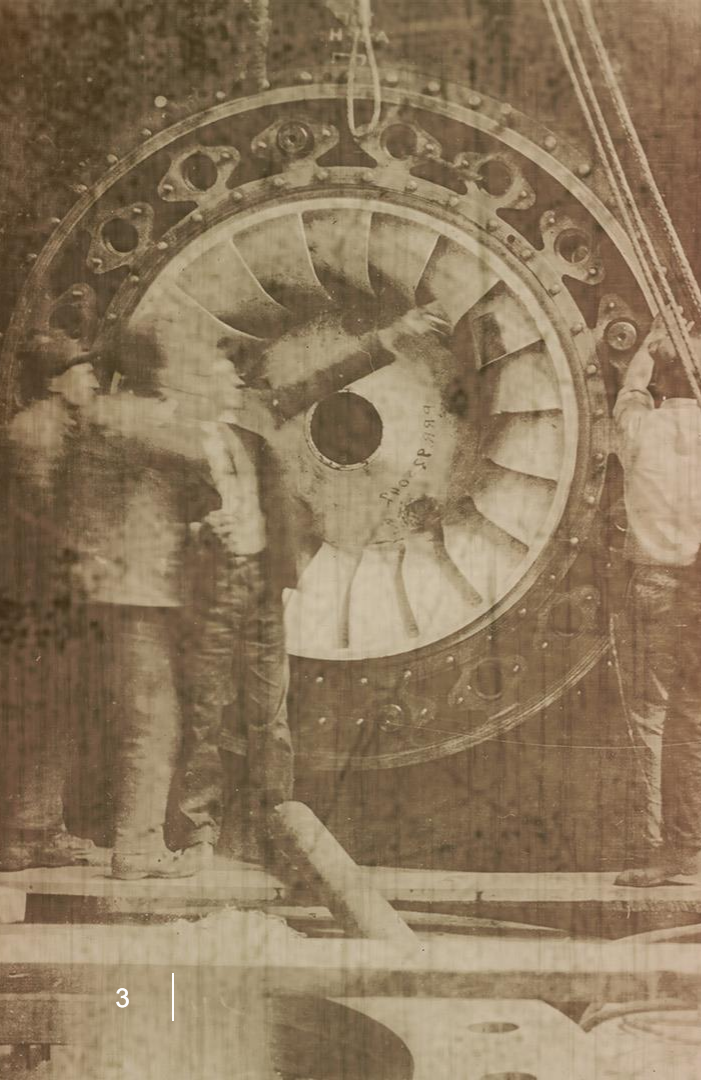


# PSE's Transformation to Cleaner Energy

July 17, 2026



**PUGET  
SOUND  
ENERGY**



# Fueling the growth of local communities for over 150 years

- We're Washington's largest and oldest utility, **serving 1.7 million customers** in 10 counties.
- Our core purpose is the **safe and reliable** delivery of energy to our customers, under all conditions.
- We're undergoing a **historic transformation** as we strive to meet Washington state's **ambitious clean energy laws**.

# Washington has enacted some of the most ambitious climate policies in the country

## Clean Energy Transformation Act (SB 5116)

Passed in 2019 and commits WA state to a carbon-neutral electric supply by 2030 and 100% clean electricity by 2045

## Clean Buildings Act (HB 1257)

Passed in 2019 and adopts a new energy performance standard for existing commercial buildings over 50,000 sq. ft.

## Climate Commitment Act (SB 5126 – “Cap and Invest”)

Passed in 2021 and establishes a program aimed at capping and reducing GHGs from the largest emitting sources and industries, to work towards the state's greenhouse gas limits set in state law

## Clean Fuel Standard (HB 1091)

Passed in 2021 to curb pollution from the transportation sector, which accounts for almost 45% of state GHG emissions

## Decarbonization bill (HB 1589)

Passed in 2024, it streamlines planning processes, supporting the future energy choices of our customers in alignment with the state's clean energy goals



# We're making progress towards these goals

- Since 2019, we've procured more than **6,000 MW** of **renewable energy resources**.
  - **2,000+ MW** are new resources (wind, solar, storage) being built to serve the region
- We're **rapidly expanding renewable energy resources**, from large-scale generation projects to energy produced locally, in our neighborhoods and communities.
- Achieving these goals requires balance: keeping our **electric and gas system strong and dependable**, **investing in cleaner energy resources**, and doing so **responsibly and thoughtfully**.

Left: PSE's new Beaver Creek wind farm

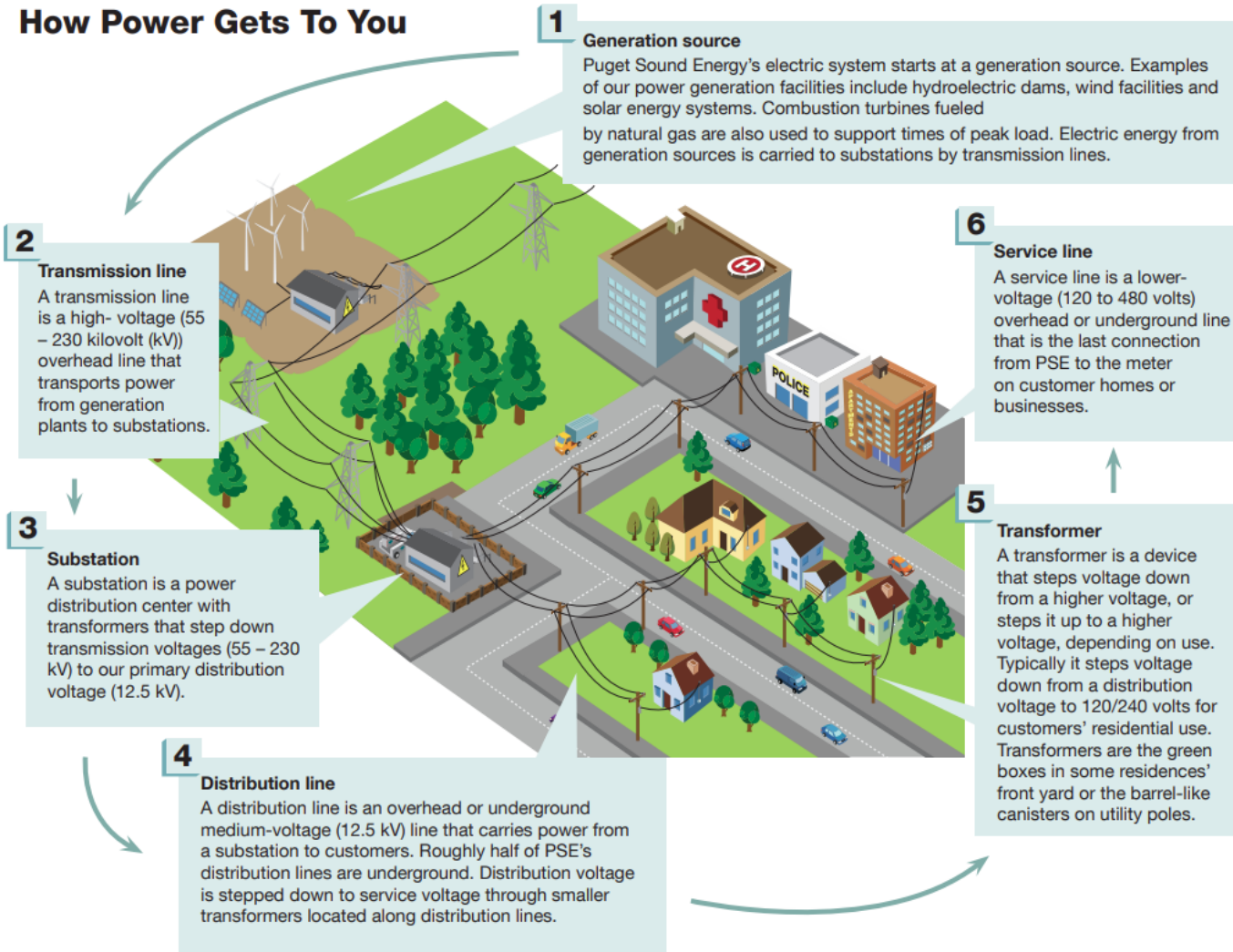


# The path to a cleaner energy future is complex and not without challenges

- The **demand** for electricity is expected to **increase significantly**.
- **Cleaner energy technologies** that can replace reliable and dispatchable generation currently provided by natural gas are **not commercially available** yet.
- Commercially available **renewable resources**, such as wind and solar, are **intermittent** and can lead to more volatile and **unpredictable power markets** and **reliability challenges**.
- The **electric grid** needs to be **expanded and modernized** to support the transition to cleaner energy and to handle more extreme weather.
- We must balance this accelerated transformation with the need to keep **costs reasonable** for our customers.



# How Power Gets To You



# The region is at risk of power supply shortfalls—this could lead to rolling blackouts during extreme conditions

**The Greater Northwest faces a supply shortfall in 2026 which grows to 8,700 MW by 2030**



+ Load growth and retirements mean the region faces a power supply shortfall in 2026

+ The region currently relies on 2,500 MW of imports to maintain reliability

+ Nearly 9,000 MW of new ‘effective capacity’ is needed by 2030

+ Projects currently in active development account for only 3,000 MW of new ‘effective capacity’

+ 850 MW are coal-to-gas conversions

+ 260 MW from hydro upgrades

## Greater Northwest

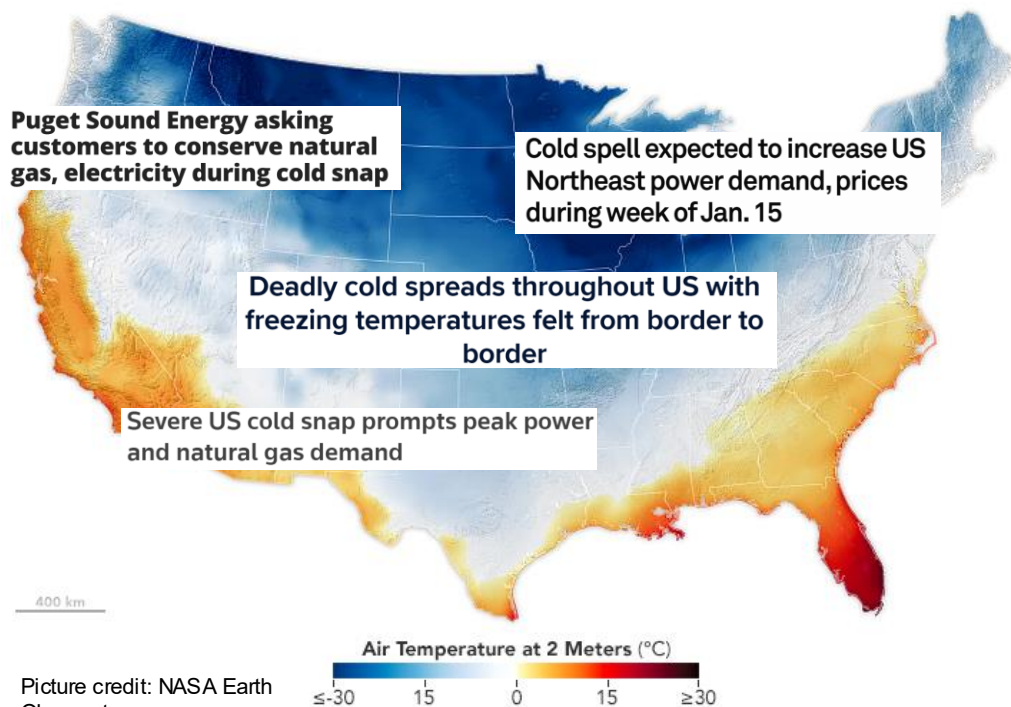
Total Resource Need and Effective Capacity Contribution from Resources In Development (MW)

| System Needs (MW)                                           | 2025   | 2026   | 2027   | 2028   | 2029   | 2030   |
|-------------------------------------------------------------|--------|--------|--------|--------|--------|--------|
| Total Resource Need*                                        | 49,245 | 50,737 | 52,499 | 54,184 | 55,879 | 57,195 |
| Existing Portfolio w/ Retirements                           | 46,716 | 45,666 | 45,395 | 45,388 | 45,098 | 44,757 |
| Firm Imports                                                | 3,750  | 3,750  | 3,750  | 3,750  | 3,750  | 3,750  |
| Reliability Position<br>Surplus (+) / Shortfall (-)         | +1,221 | -1,321 | -3,354 | -5,046 | -7,031 | -8,689 |
| ELCC from “In-Development”*** Firm Resources                | -      | 296    | 407    | 580    | 770    | 1,114  |
| ELCC from “In-Development” Wind, Solar and Battery projects | -      | 645    | 1,015  | 1,316  | 1,508  | 1,934  |

\* Total Resource Need includes peak load + planning reserve margin as well as obligation to serve the Columbia River Treaty Regime

\*\* In-development resources are WECC ADS 2034 facilities with confirmed project location, project name, and can be verified online

# Case study: MLK cold snap



- Extreme cold between Jan 11-16 drove unprecedented demand for energy across the nation.
- We set new records for demand on both the gas and electric systems.
- We relied on all our generating assets as well as the regional market to meet demand.
- Over the entire period, 70% of the energy consumed by our customers was natural gas and 30% was electricity.





## We're pursuing an “all of the above” strategy to address this critical reliability gap

- We're working to **diversify our electric supply** portfolio, including our supply of renewable resources.
- We're supporting **early project development** activities for an advanced **small modular nuclear** reactor facility.
- We're adding **utility-scale battery storage** solutions to our portfolio and exploring newer technologies for longer duration energy storage.



PSE's Frederickson generating station is an example of a dispatchable energy resource

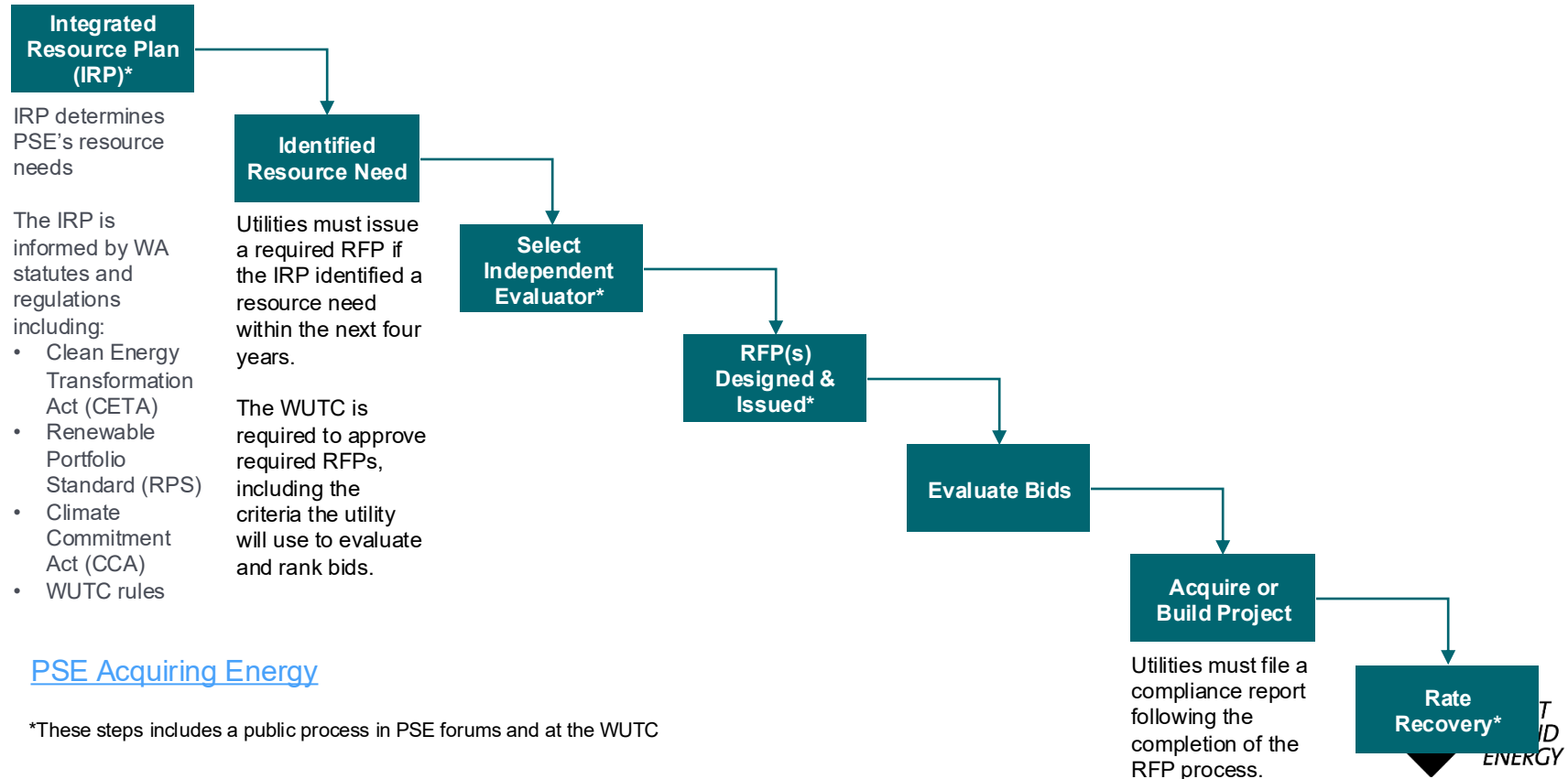


PSE's Wild Horse wind facility is an example of an intermittent/variable energy resource

# There's a need for on-demand, clean energy resources to replace carbon emitting resources

- Our resource portfolio no longer includes traditional coal-fired **baseload generation**.
- We need to replace this energy that acts as an **on-demand, easily dispatched** resource, serving customers when the sun isn't shining or the wind isn't blowing.
- **Emerging technologies** that could fill this gap will likely not be **commercially available** for some time.
- In the near term, the large amounts of **variable resources**, including wind and solar, being added to the system poses a **reliability risk** and **hybrid thermal peaking resources** will be needed to **bridge the gap**.

# PSE Process for Procuring new energy supply and capacity

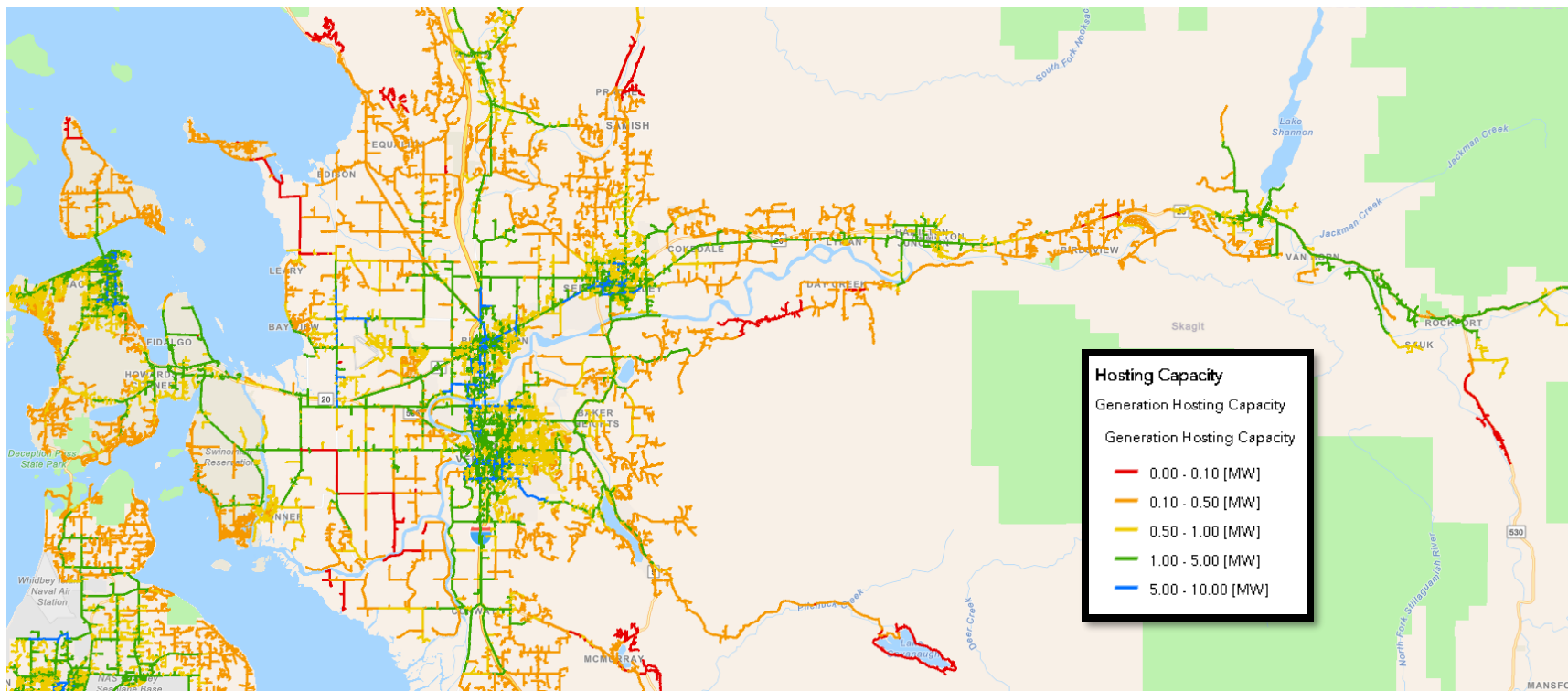


# RFP Evaluation Criteria

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- Equitable development & inclusion of renewable resources on the grid
- Scored and evaluated based on qualitative and quantitative metrics
  - Quantitative – Benefit Cost Analysis Methodology
  - Qualitative – site control, permitting, deliverability, equity
  - Location value scoring – hosting capacity, substation loading, community considerations
- If RFPs do not meet minimum criteria removed from queue

# Skagit Generation Hosting Capacity Map







# Distributed energy resources (DERs)

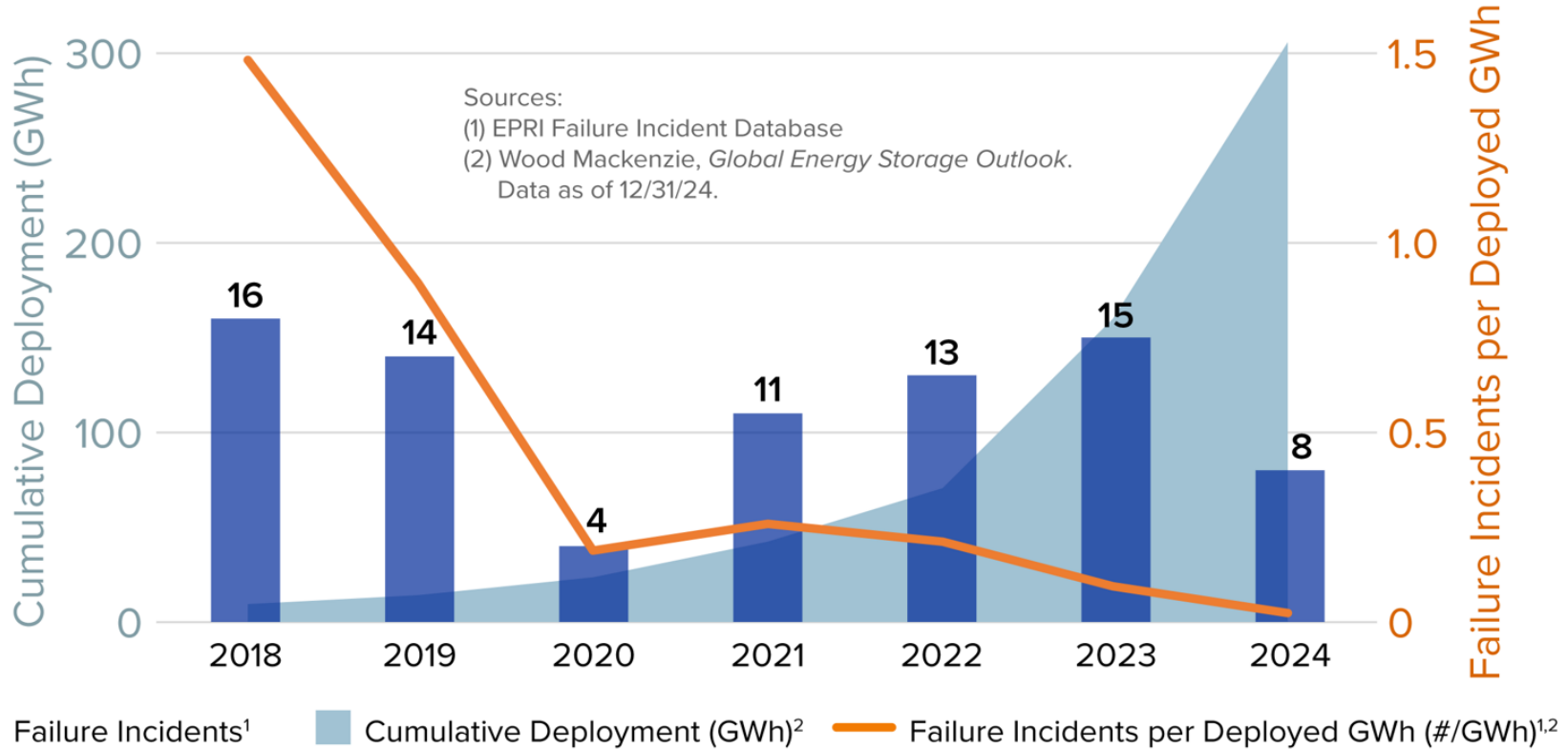
- Customer adoption of **DERs** (rooftop solar panels, batteries, EVs and other smart appliances) is **growing rapidly**.
- DERs promote **two-way flows of energy** and offer opportunities for utilities and customers to **work together** and innovate to meet rising demand.
- PSE envisions its role in this new landscape as a “**conductor**” within the energy ecosystem, empowering customer choice and flexibility, enhancing controls and automation, and optimizing interactions to achieve our clean energy targets and navigate energy system challenges.

(Left) Community Solar sites like these will play an important role along with utility-scale energy resources.

# Battery storage systems play a critical role in accelerating our transition to clean energy

- Battery storage systems allow us to get the **most value from existing renewables** and **offset the need to build additional generation resources** that are used only at times of high demand.
- We estimate we will need approximately **1,500 MW of storage by 2030** (DER, hybrid, utility-scale combined).
- We're exploring a mix of **PSE and developer-owned agreements for** battery storage projects.

# Global Grid-Scale Storage Deployment and Failure Statistics



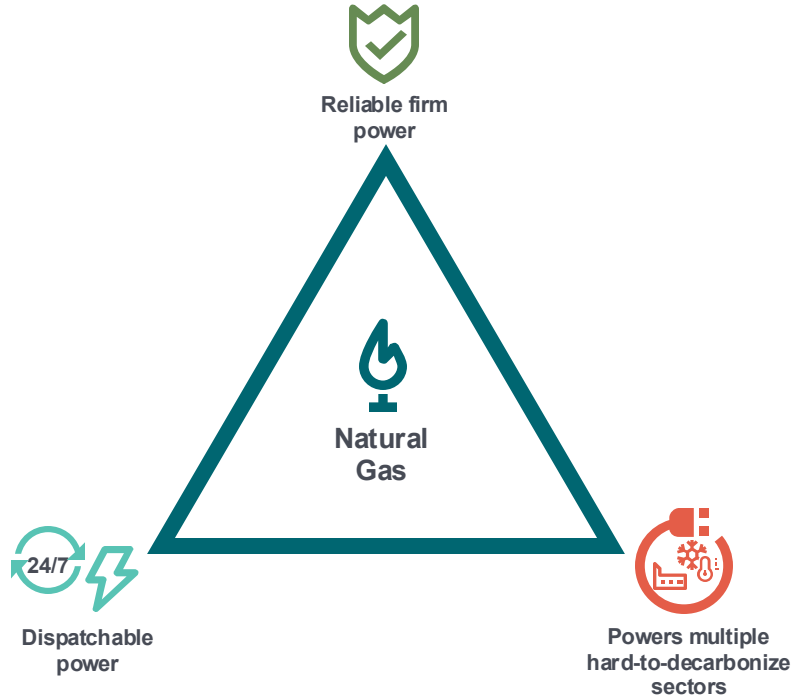
# Planning for future energy needs in alignment with customer choices and state policies

- State legislation (HB 1589) requires PSE to integrate planning for the electric and gas systems, consolidating six-plus existing plans, streamlining processes for our regulator and creating more transparency for customers.
- Natural gas is an essential part of our state's energy supply today. It is the primary source of heating for PSE's nearly 900,000 natural gas customers.
- When demand spikes, natural gas keeps the lights and heat on, even more so as 750 MW of coal-fired generation was removed from our electricity supply at the end of 2025 per state law.



On a cold winter's day, the gas system provides **more than 2X the energy** provided by our electric system to our customers

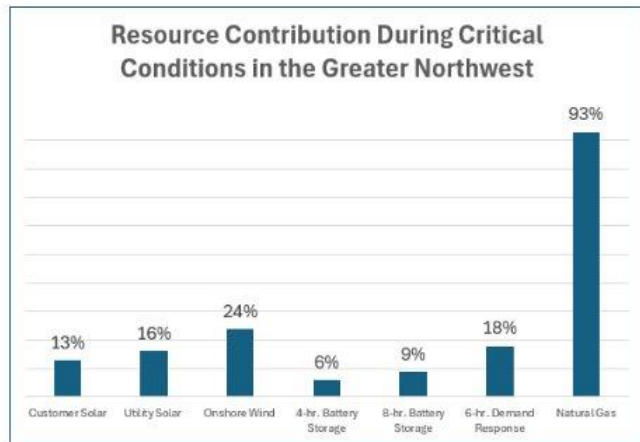
# Natural gas as transition energy resource



# Different energy resources play different roles. Not all resources are created equal

## Different energy resources play different roles: 'effective capacity' versus 'nameplate capacity'

Marginal ELCC (%)

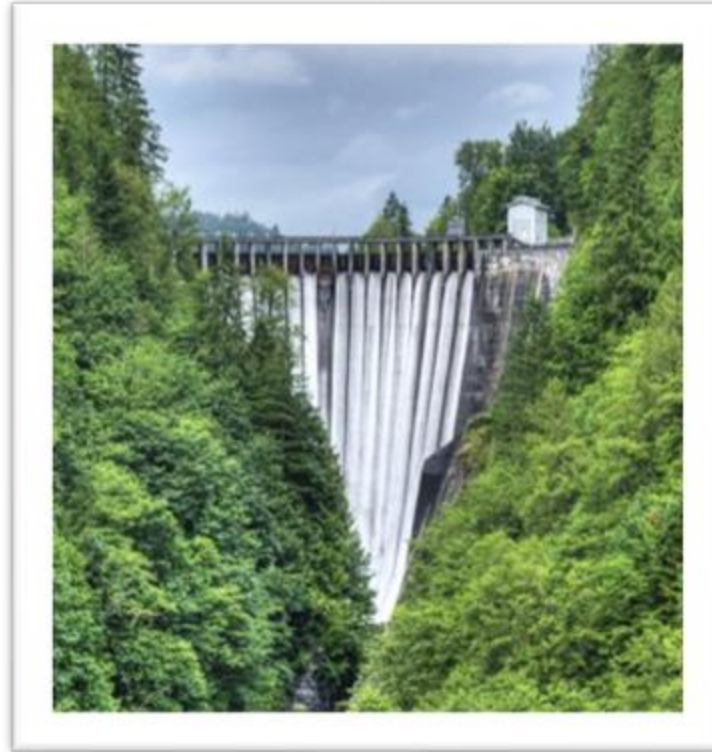


- + Resources that are commercially available today include wind, solar, short-duration battery storage, demand response, and natural gas
- + In evaluating resource adequacy, we look at the ability of resources to produce energy during critical conditions
- + Wind and solar provide valuable clean energy, but cannot always produce energy when needed most
- + Many innovative “clean firm” technologies are in development, but none is ready for large-scale deployment in the near term



# Clean Energy Technology Potential in Skagit County

- Solar
- Fusion/SMRs
- Distributed Energy Resources
- Flexible capacity resources



*PSE Baker River Hydroelectric Project*

The path forward is complex – we have a lot to do and we must account for a variety of needs.

We're committed to building a cleaner, safer, and more reliable energy future.

**[PSE.com/PoweringGenerations](https://pse.com/PoweringGenerations)**