



Snohomish County PUD Integrated Resource Plan

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Agenda

- Introductions
- Integrated Resource Planning Overview
- 2025 IRP Results

What is an IRP?



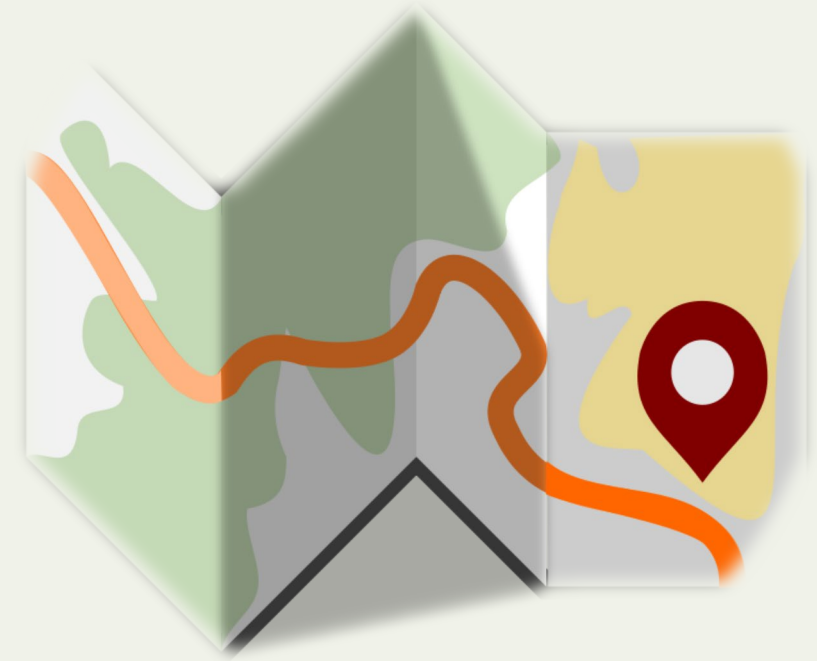
An IRP:

- Forecasts future electricity supply and demand
- Evaluates potential resources for costs, benefits and risks
- Selects an optimal mix of resources that results in the lowest reasonable cost to customers
- Sets a near-term Action Plan for the PUD
- Is required by law for utilities of the PUD's size
 - Clean Energy Transformation Act
 - "Clean energy" planning
 - Energy Independence Act
 - Renewable Portfolio Standard
 - Biennial Conservation Targets
- Is completed every 4 years and updated 2 years thereafter

See our current and previous IRP's at
www.snopud.com/IRP

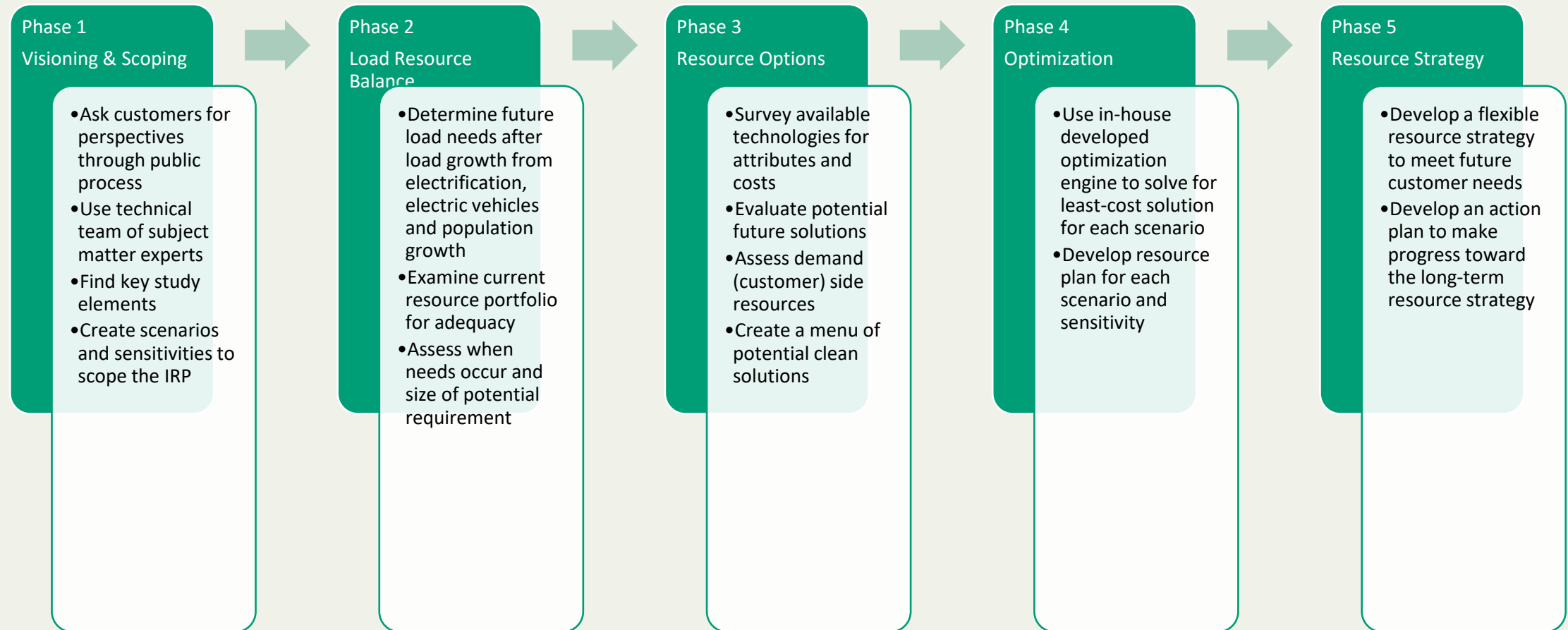
An Integrated Resource Plan (IRP) asks: How best should we serve our customer-owners?

1. What **possible futures** could the PUD face through 2045?
2. Does our existing energy portfolio meet our customers' needs through these futures?
3. Do we need to add resources?
4. When are new resources needed?



5. How do we get from where we are today to where we are going?

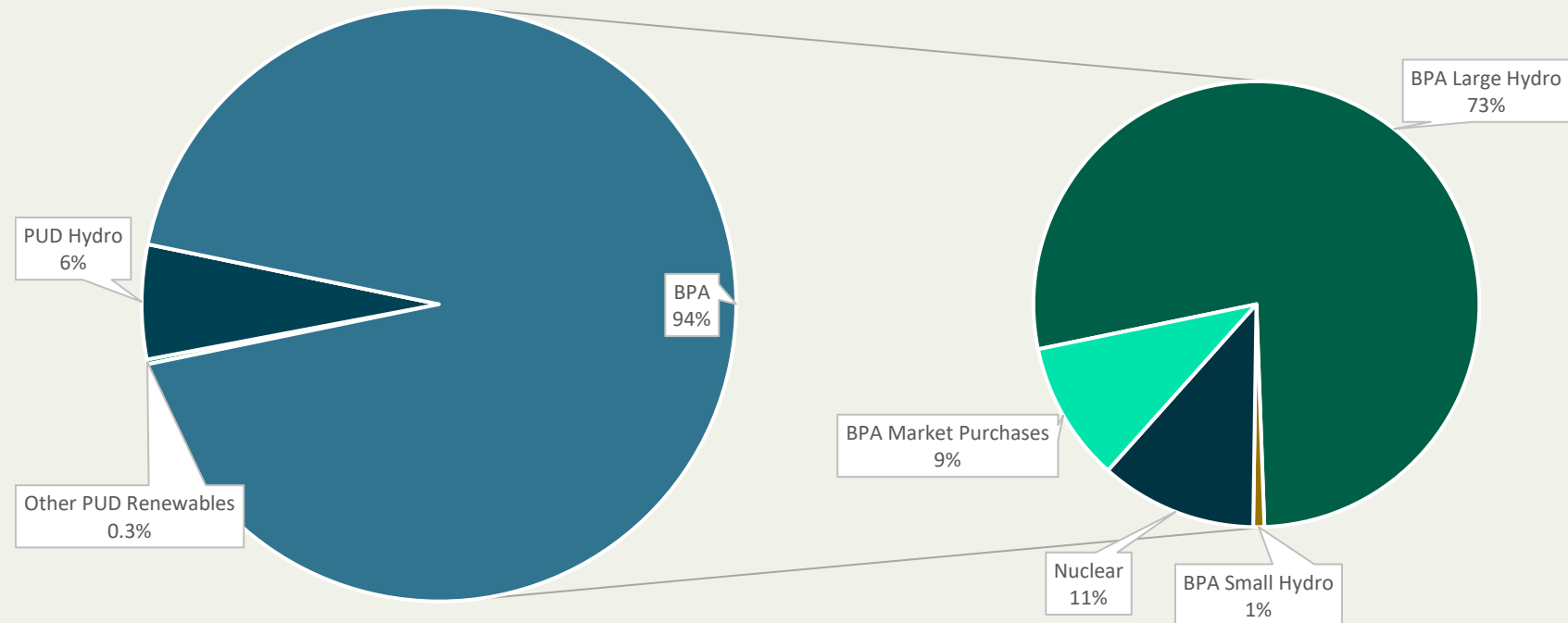
Our IRP Process



Our Clean Portfolio

- We primarily have hydroelectric energy resources, mostly from the federal Bonneville Power Administration
- The PUD owns or contracts for other smaller resources such as our owned Jackson Hydro Project at Spada Lake

Example 2026 Power Portfolio



Scenarios & Sensitivities



Base

- “Expected Scenario”



High Growth

- “Economic upturn”



Low Growth

- “Economic downturn”



High Tech

- New technology develops faster



Limited Renewables

- Fewer renewable resources available



BPA Costs Change



Thin REC Market



Single Clean Energy Policy

Load Forecast – Average Annual Load

Base Case

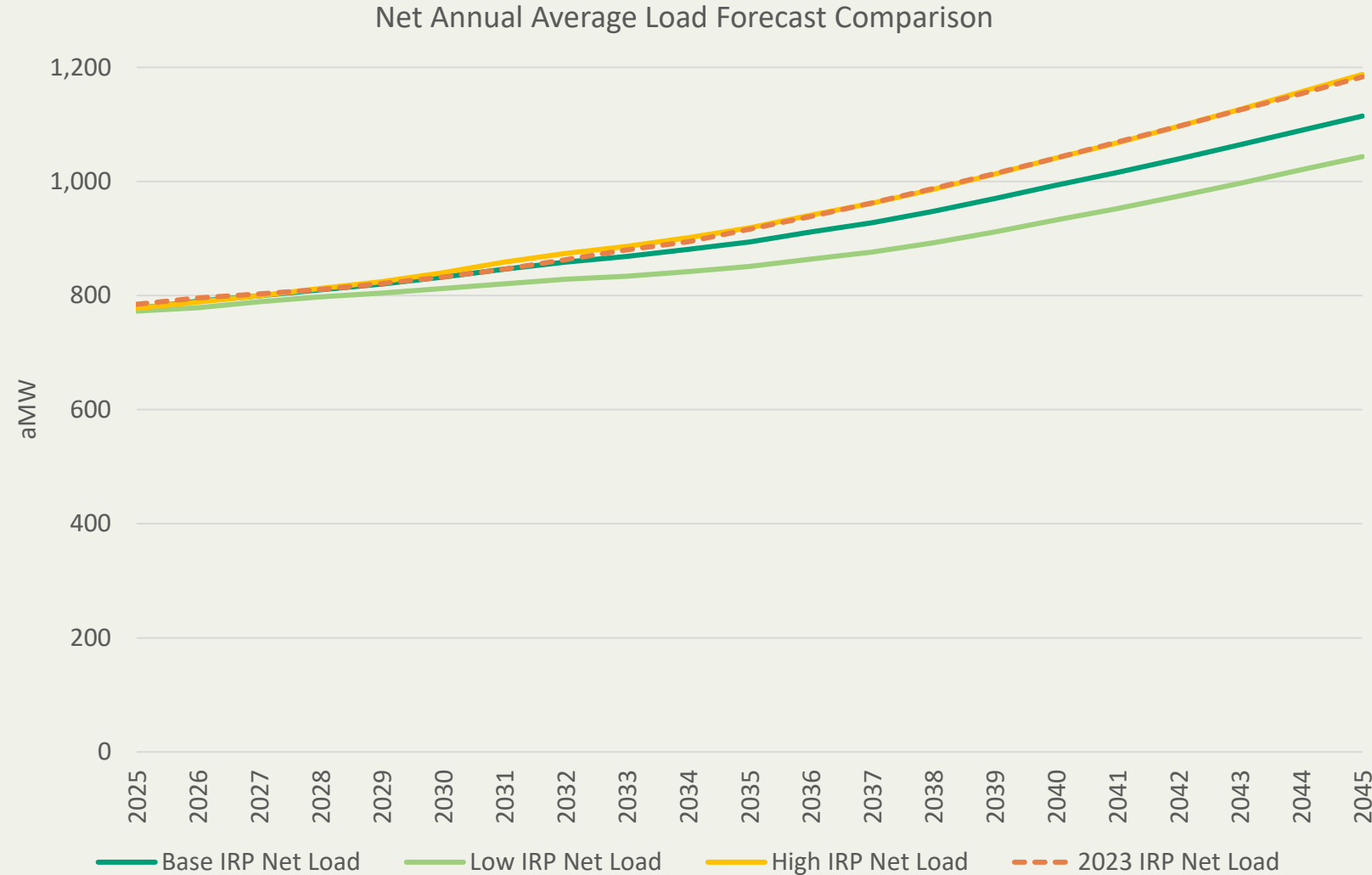
- 1.82% avg annual load growth
- 43% net load increase over study period

High Case

- 2.14% avg annual load growth
- 53% net load increase over study period

Low Case

- 1.51% avg annual load growth
- 35% net load increase over study period



Demand-side Resources

- **Conservation Potential Assessment (CPA)**
 - We do a conservation potential assessment every IRP to determine the energy savings available in our service territory.
 - Conservation programs reduce the energy needed by our customers; it has been our most cost-effective resource, and we invest in our communities.
 - Using our existing resources more efficiently and not purchasing new energy sources reduces the costs of our power portfolio.
- **Solar Potential Assessment (SPA)**
 - New! Will assess potential for further incentivizing large customer-owned solar
 - Customer feedback suggested we look at customer-owned solar as a resource in new ways. The SPA looks at costs and benefits of an incentive offered.
- **Demand Response Potential (DRPA) – Shared Energy Management**
 - Demand Response (DR) means shifting or temporarily reducing energy usage during peak hours using technology or incentives.
 - DR helps reduce costs by deferring or reducing the need for infrastructure upgrades and our peak hour energy costs.

Supply Side Resource Menu – Candidate Resources

Baseload Resources

- *Firmer generation profile*

- Geothermal
- Solar + Storage
- Wind + Storage
- BPA Tier 2 Power
 - Short-Term Tier 2
 - Long Term Tier 2
- Small Modular Nuclear Reactors (E WA, late 2030's)
- Local Fusion (2040's)

Variable Resources

- *Cheaper, less firm profile*

- New Local ROR Hydro
- Small Hydro Buyout
- Small, Local Utility Scale Solar (1-5 MW)
- Regional Utility Scale Solar (25+ MW)
- Gorge Wind
- Montana Wind
- Customer Rooftop Solar Incentive – Rooftop Solar Potential Assessment

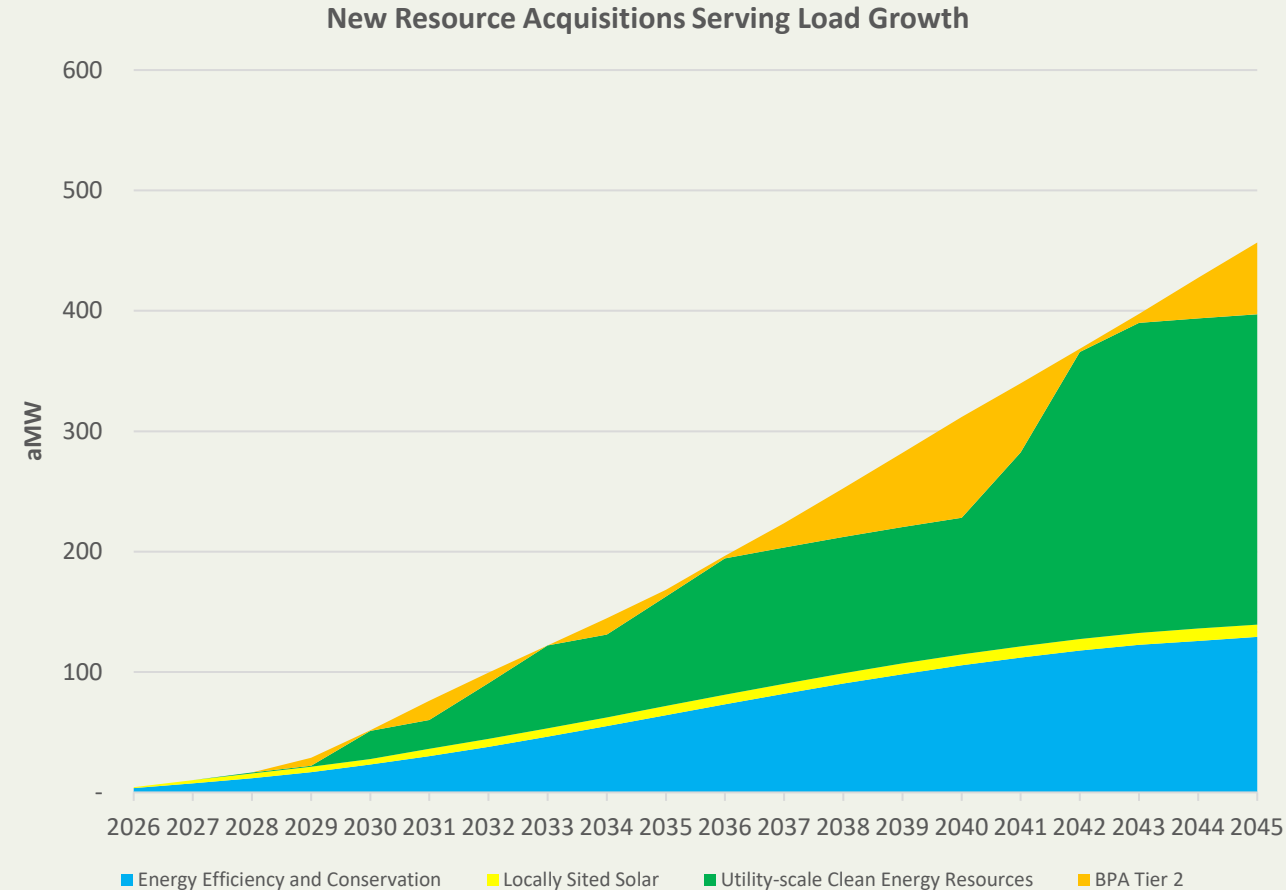
Dispatchable Resources

- *Can turn on/off for peaks*

- Biodiesel Peaker
- 4-Hr 25MW Li-Ion Battery Storage
- 100-Hr Iron-Air Battery
- Long Duration Local Pumped Storage Hydro

At-A-Glance: 2025 IRP Resource Strategy

- Conservation, Demand Response, and Renewable Resource investments are the primary resource additions that result in lowest costs
 - These results are similar to previous IRPs
 - Regulatory compliance considerations drive resource investments, which would be augmented by environmental attribute purchases
- **Short-Term BPA Power purchases (Tier 2)** are used as a bridge between resource additions



2025 IRP Near-Term Actions

- Acquire 7.5 annual aMW of cost-effective Conservation by 2027
- Develop cost-effective Demand Response & Smart Rates
- Develop local PUD solar and explore programs for large (>50kW) customer-owned solar resources
- Perform additional due diligence on local battery energy storage
- Develop a strategy and framework to manage new large load requests
- Continue to build and enhance community engagement on long-term planning, including outreach to more communities, and with support for multiple languages

Questions?