

# Decarbonization and Resource Adequacy Update Global Warming Committee

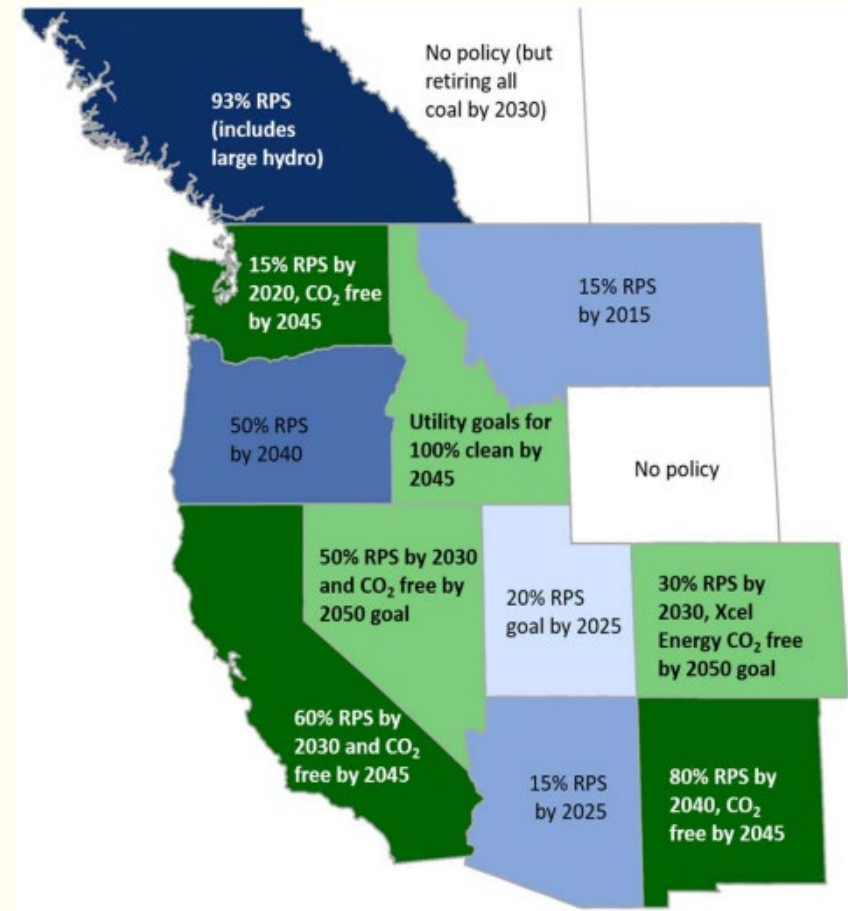
SARAH EDMONDS

JANUARY 29, 2021

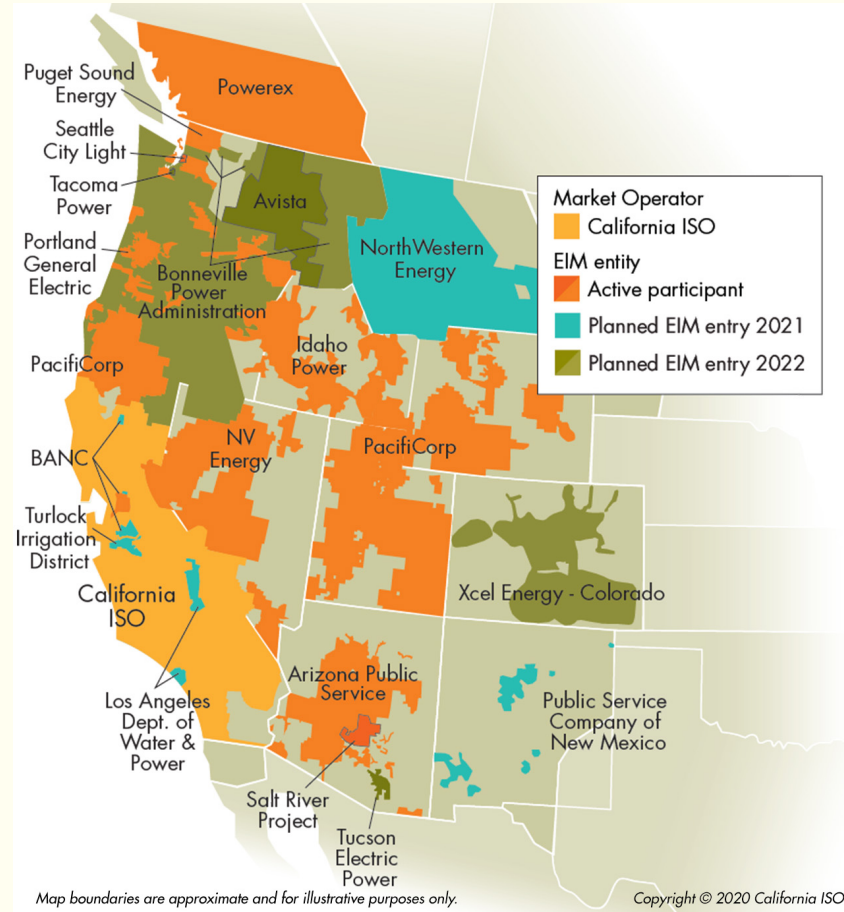


# How Did We Get Here? - Enabling a Reliable Grid Transition

- Many states are mandating a shift to renewable resources - a change from the NW's historical generating resources
  - For example, since 2007, the Oregon Legislature has passed bills that have shaped Oregon's decarbonization goals including Senate Bills 1149, 838 (Renewable Portfolio Standard), and 1547 (Accelerating RPS), and Oregon Executive Order 20-04.
- PGE's positioning as Oregon's largest energy provider and a fully regulated investor-owned electric company enables us to be a full partner in Oregon's policy direction including doing the following:
  - Electrifying the Transportation Sector
  - Providing Renewable Options to Customers
  - Increasingly "Cleaning" our Energy
- Independent of our decarbonization effort, we must also ensure that we plan for and provide for the reliability of the electric system through Resource Adequacy as fossil-fuel resources continue to retire.



# Energy Imbalance Market Participation Optimizes Regional Resources



## Helps Balance Renewable Resources

- EIM is a real-time market helping to integrate renewables on a least cost basis. Participants have begun to explore adding on a day-ahead market component.

## Keeping Up with a Changing Industry

- Over 2/3 of electric customers in the USA are served by utilities in organized markets, like the EIM. That number is rapidly growing, especially in the West.

## Transmission Enables Participation

- Sufficient transmission capacity is key to successful participation in the EIM.



# Resource Adequacy Regional Effort

- The Northwest Power Pool was established in 1941 and since that time has been coordinating resources to maximize efficient electricity production
- The NWPP today coordinates several different programs essential to the reliable operation of the NW power grid including:
  - Reserve Sharing Program
  - Pacific Northwest Coordination Agreement
  - Western Frequency Response Sharing Group



# RA Program Development Overview



## **PROGRAM PARTICIPANTS**

A total of 20 NWPP members have committed to fund the next phase of the program's development

## **FUNDING MEMBERS INCLUDE:**

Avista, B.C. Hydro/Powerex, BPA, CALPINE, Chelan PUD, Douglas PUD, EWEB, Grant PUD, Idaho Power, Northwestern Energy, NV Energy, PacifiCorp, Portland General Electric, Public Service of Colorado, Puget Sound Energy, SMUD/Banc, Seattle City Light, Snohomish PUD, Tacoma Power, Turlock Irrigation District



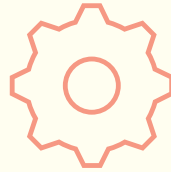
# Benefits of a Regional RA program



## **TRANSPARENCY**

Regional approach to RA can inform a more comprehensive solution.

Consistent standards among members.



## **EFFICIENCY**

Opportunity to access diversity benefits



## **CONFIDENCE**

Confidence in regional RA needs

# Main Program Elements



## FORWARD SHOWING

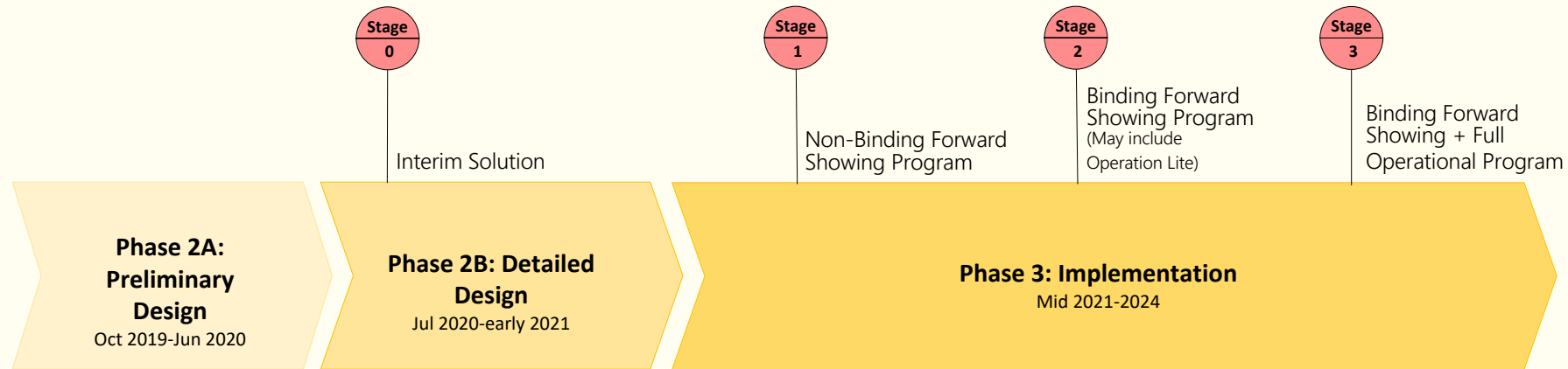
Entities prove they meet regional metrics  
months in advance of a season  
Ensures reliability benefits



## OPERATIONAL

Unlocks investment cost savings through  
diversity benefits / access to pooled  
resources in operational time horizon (day  
ahead and/or real time)

# Overview of Project Timeline





# Next Steps (6 - 9 months)

- Continue to work on detailed design
- Address governance structure
- Continue state and stakeholder engagement
- Implementation of first stage expected to commence mid-2021
- Conceptual Design document can be found here:

[https://www.nwpp.org/private-media/documents/2020-07-31\\_RAPDP\\_PublicCD\\_v2.pdf](https://www.nwpp.org/private-media/documents/2020-07-31_RAPDP_PublicCD_v2.pdf)



**Let's  
meet the  
future  
together.**

