

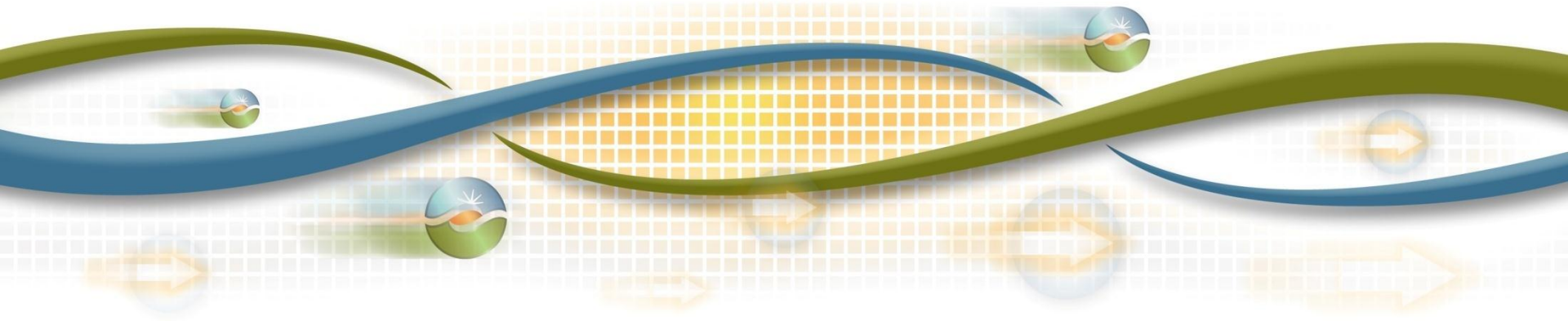


# Governor's Greenhouse Gas Reduction Goals

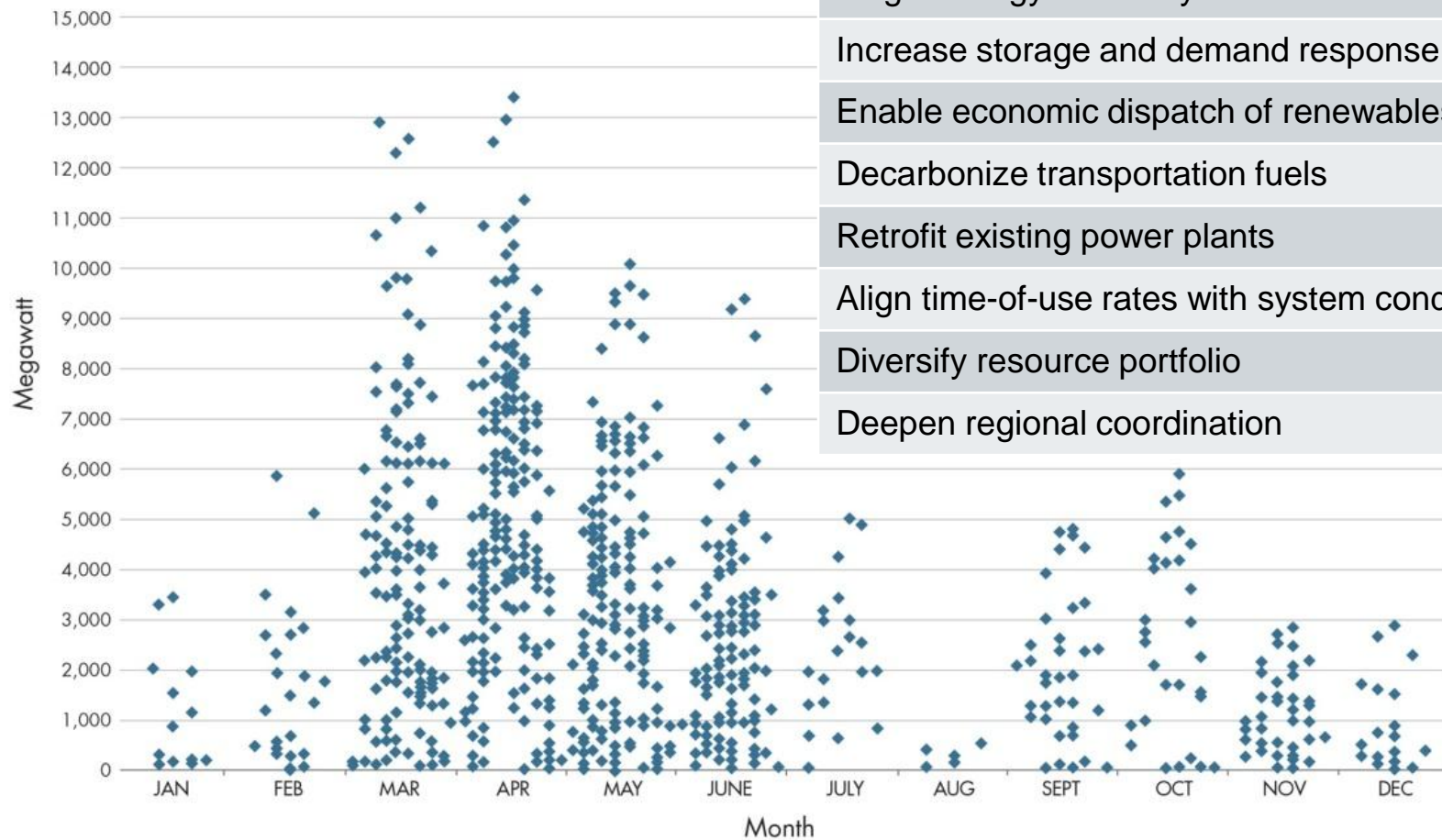
Operational lessons important to a low-carbon grid

Phil Pettingill, Director, Regional Integration

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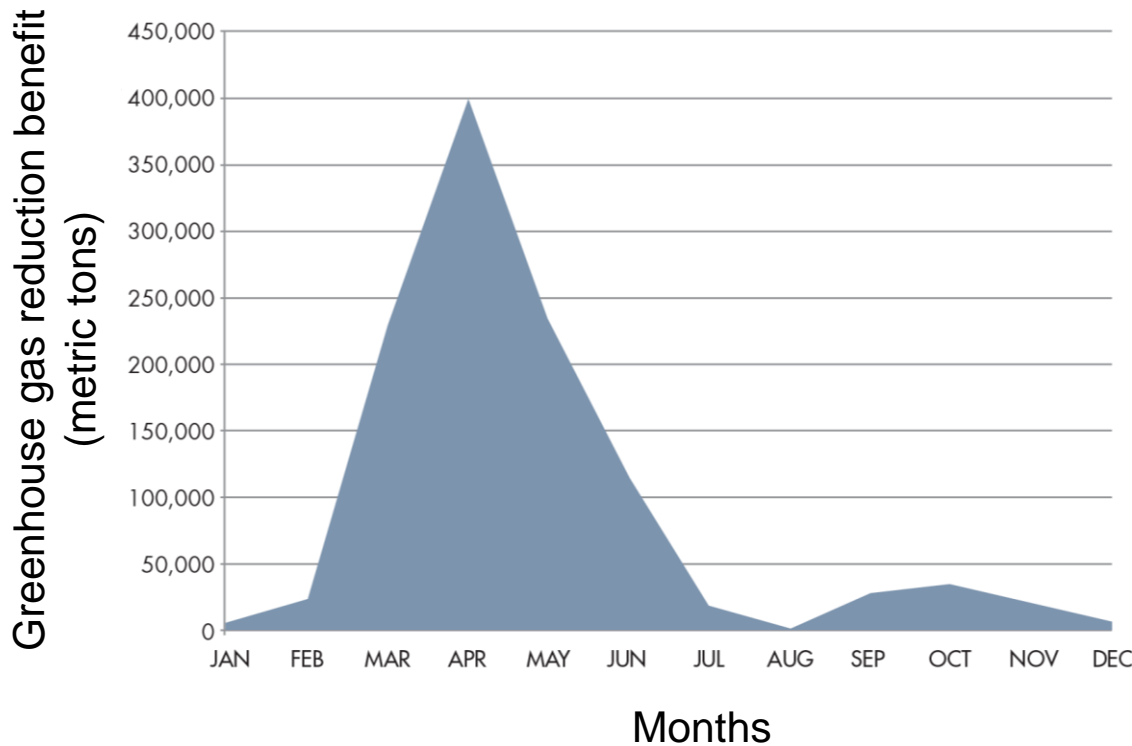
# Renewable curtailment in 2024 at 40% RPS is significant.



Solutions
Target energy efficiency
Increase storage and demand response
Enable economic dispatch of renewables
Decarbonize transportation fuels
Retrofit existing power plants
Align time-of-use rates with system conditions
Diversify resource portfolio
Deepen regional coordination

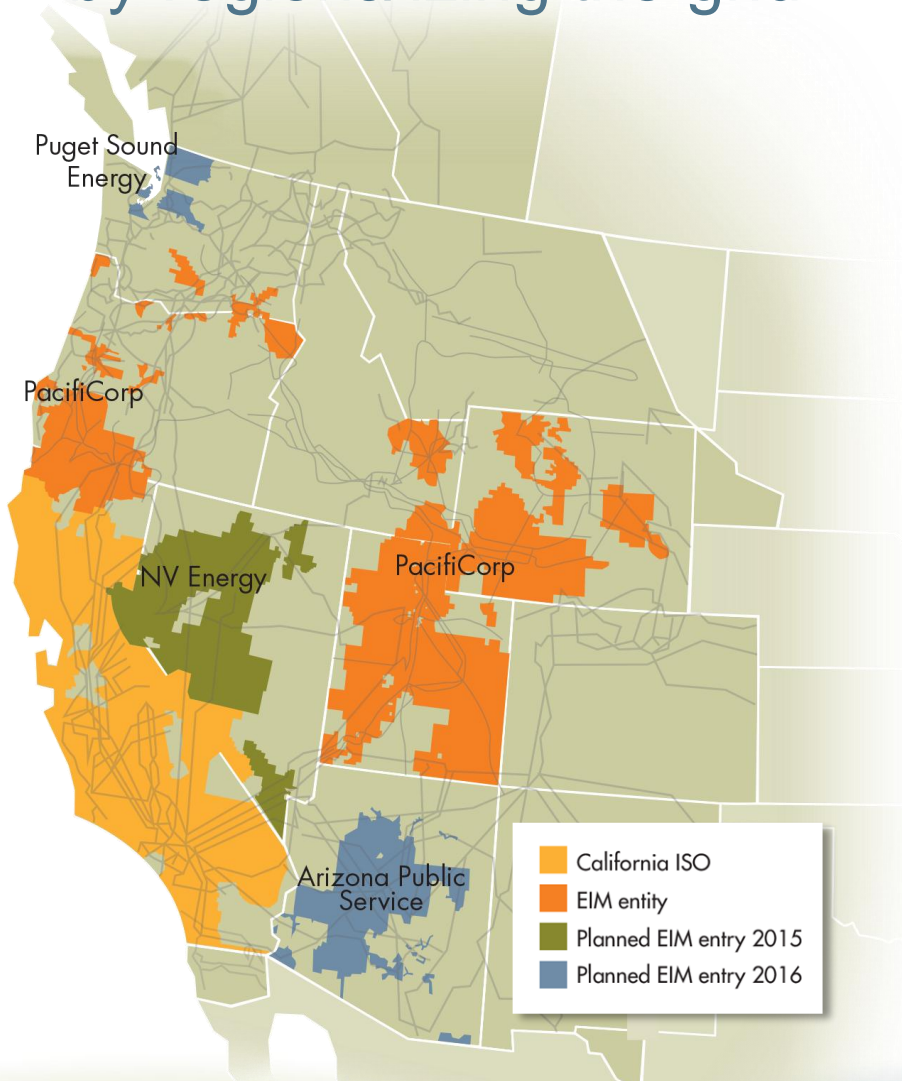
A regional grid means power that would have been curtailed can reach customers in other states, which lowers costs and reduces carbon emissions.

Carbon Benefit of Eliminating Curtailment At 40% Renewable Portfolio Standard in 2024



- Eliminating 2024 renewable curtailment at a 40% renewable portfolio standard reduces carbon emissions by 1.1 million metric tons per year.
- West-wide coordination at a 50% renewable portfolio standard lowers carbon emissions by an additional 1.5 million metric tons/year.

# California can accelerate carbon reduction in the West by regionalizing the grid.



- West-wide coordination enables increased reduction in carbon emissions
- Consumers across region will save millions of dollars per year
- A larger region benefits renewable integration
- PacifiCorp is interested and evaluating joining the ISO balancing area

# Carbon and cost benefits increase with a regional market.



- Increases development of renewable generation in California and the region
  - Optimizes what power plants are turned on ahead of time
  - Increases development of new transmission to enhance reliability, lower costs, and achieve policy objectives
  - Improves reliability by providing greater visibility and load/resource diversity across the region
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- State-of-the art technology that balances supply and demand every five minutes
  - Dispatches the use of the lowest cost generation available in real-time