



California ISO

# Montana Legislature Energy and Telecommunications Interim Committee

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# Some facts about CAISO

- Established in **1998**.
- Based in Folsom, CA.
- **32** million customers
- Serving **80%** of California and part of Nevada.
- **52,061** MW record peak demand
- **~26,000** circuit-miles of transmission lines
- **36,689** avg. market transactions per day



# California ISO: Our role in the West

## Within the CAISO balancing authority area:

- Maintains grid reliability
  - Balancing supply and demand
  - Managing flow of energy
  - Maintaining operating reserves
- Oversees transmission planning process
- Operates wholesale electric market

## For much of the western interconnection:

- Operates Western Energy Imbalance Market (WEIM)
- Serves as Reliability Coordinator (RC West)



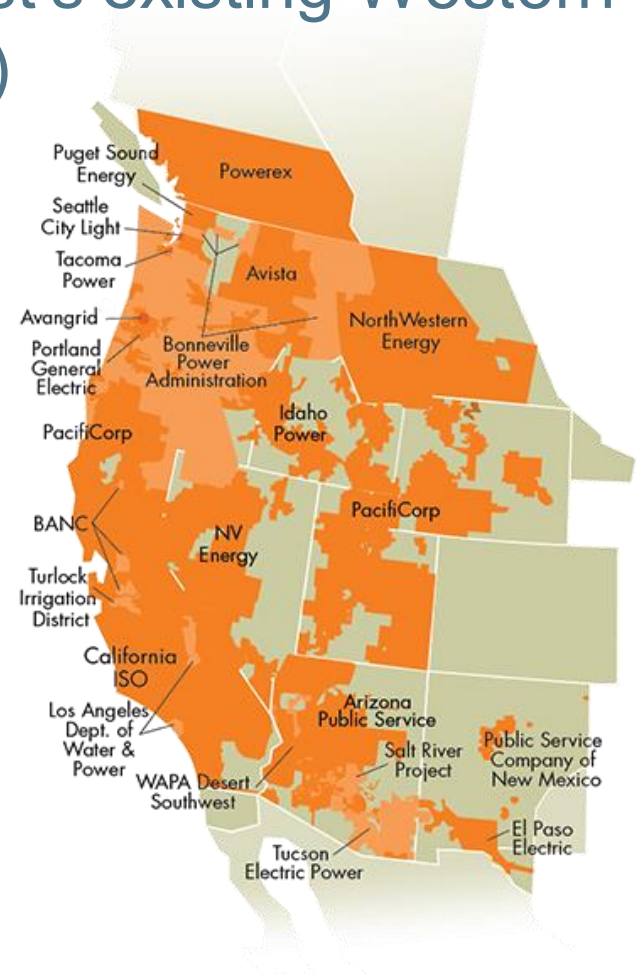
# **WESTERN ENERGY IMBALANCE MARKET:**

**Delivering Significant Benefits To The West Today**



# Economic benefits from the West's existing Western Energy Imbalance Market (WEIM)

- WEIM is a unified, real-time market across most of the West and allows utilities to efficiently manage imbalances.
- The WEIM has grown significantly to include 11 states since 2014, creating substantial economic benefits for ratepayers.
- These benefits accrue to participating utilities and provide cost reductions for retail customers.

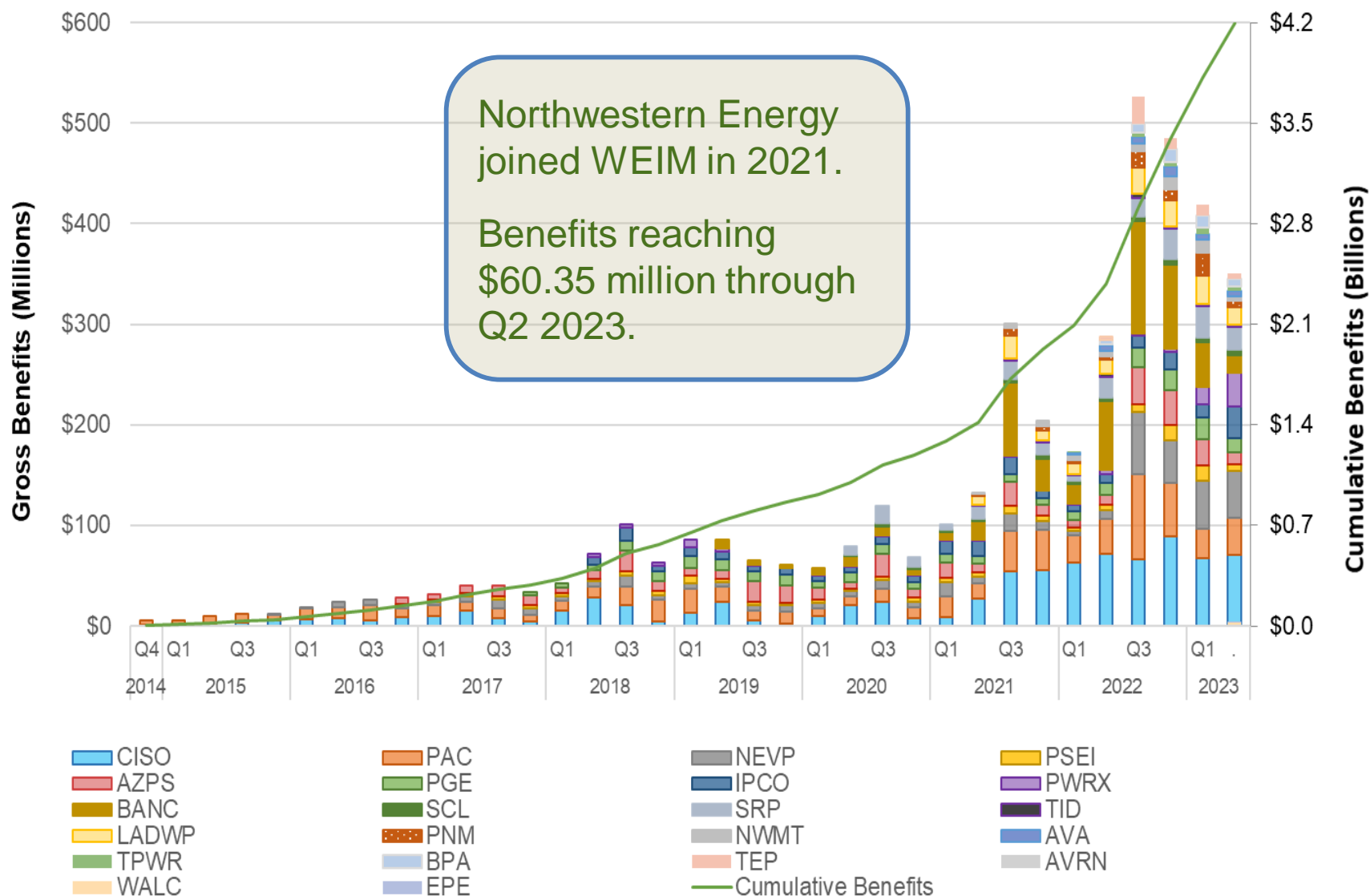


**\$4.2 billion**  
WEIM benefits since 2014

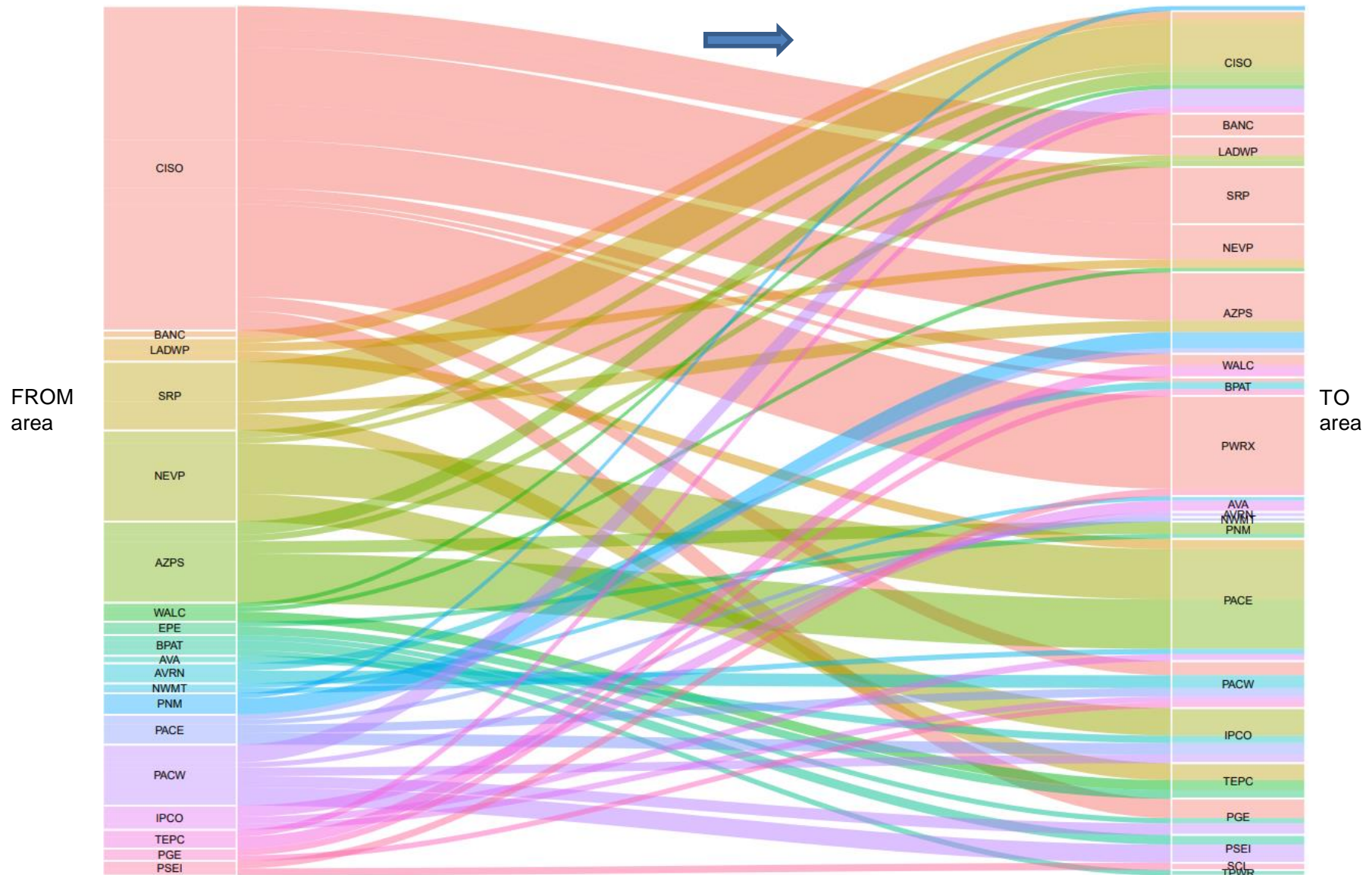
**22** Balancing Areas  
**80%** of demand in West

**64% of benefits**  
accrued to BAs outside CA

# WEIM benefits reach \$4.20 billion in Q2 2023



# Robust WEIM transfers among areas in Q2 2023



\* The smallest volumes of transfers are not depicted for clarity in the illustration

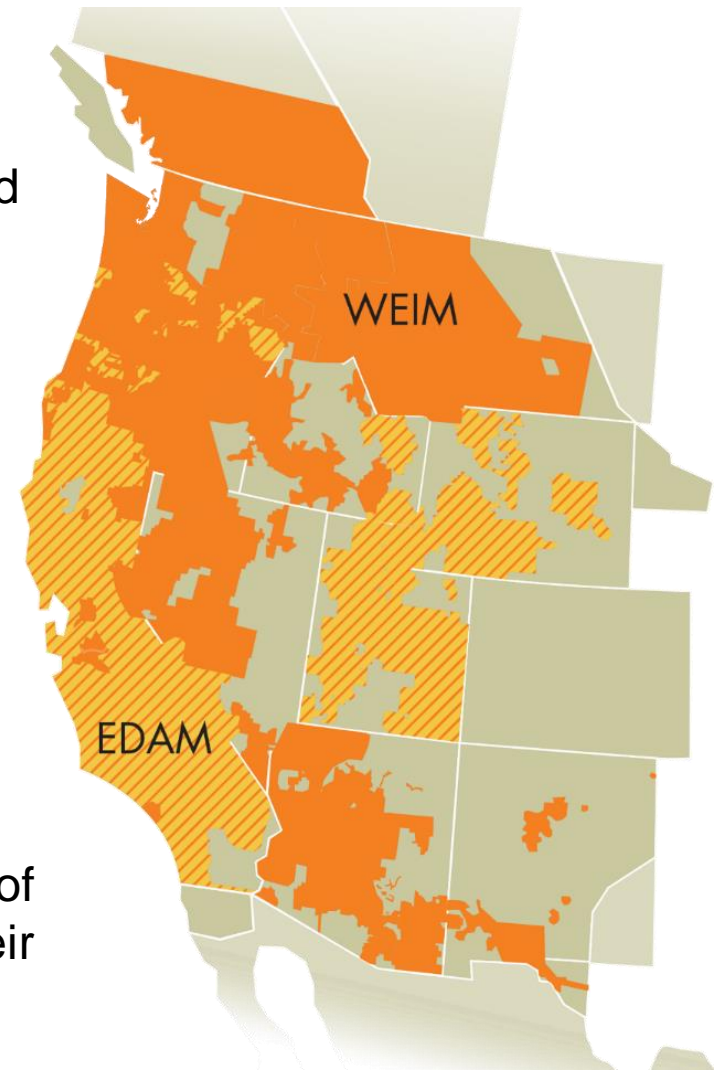
# **EXTENDED DAY-AHEAD MARKET:**

**Building upon the West's investments in WEIM for  
even greater benefits**

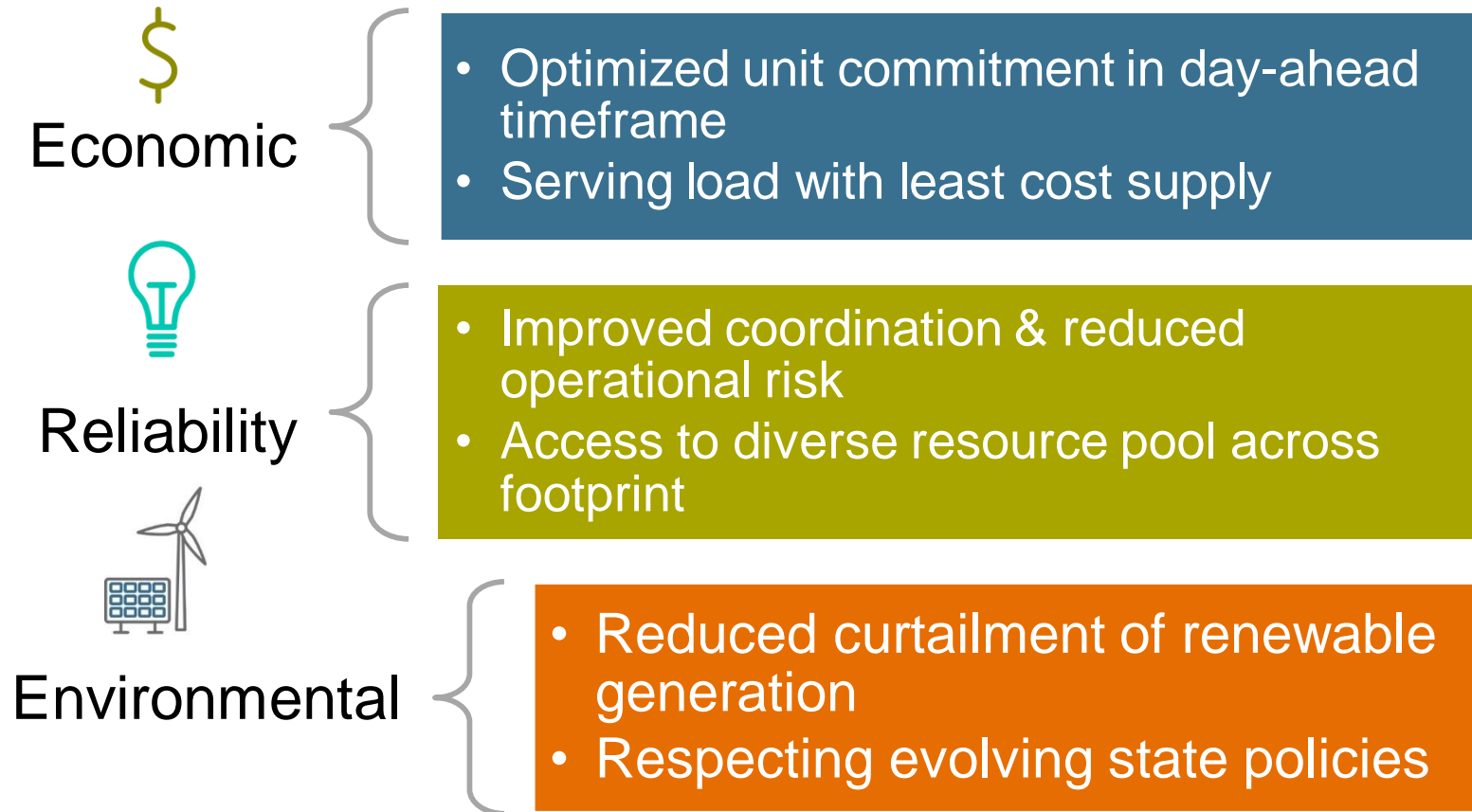


# Extension of the Day-Ahead Market

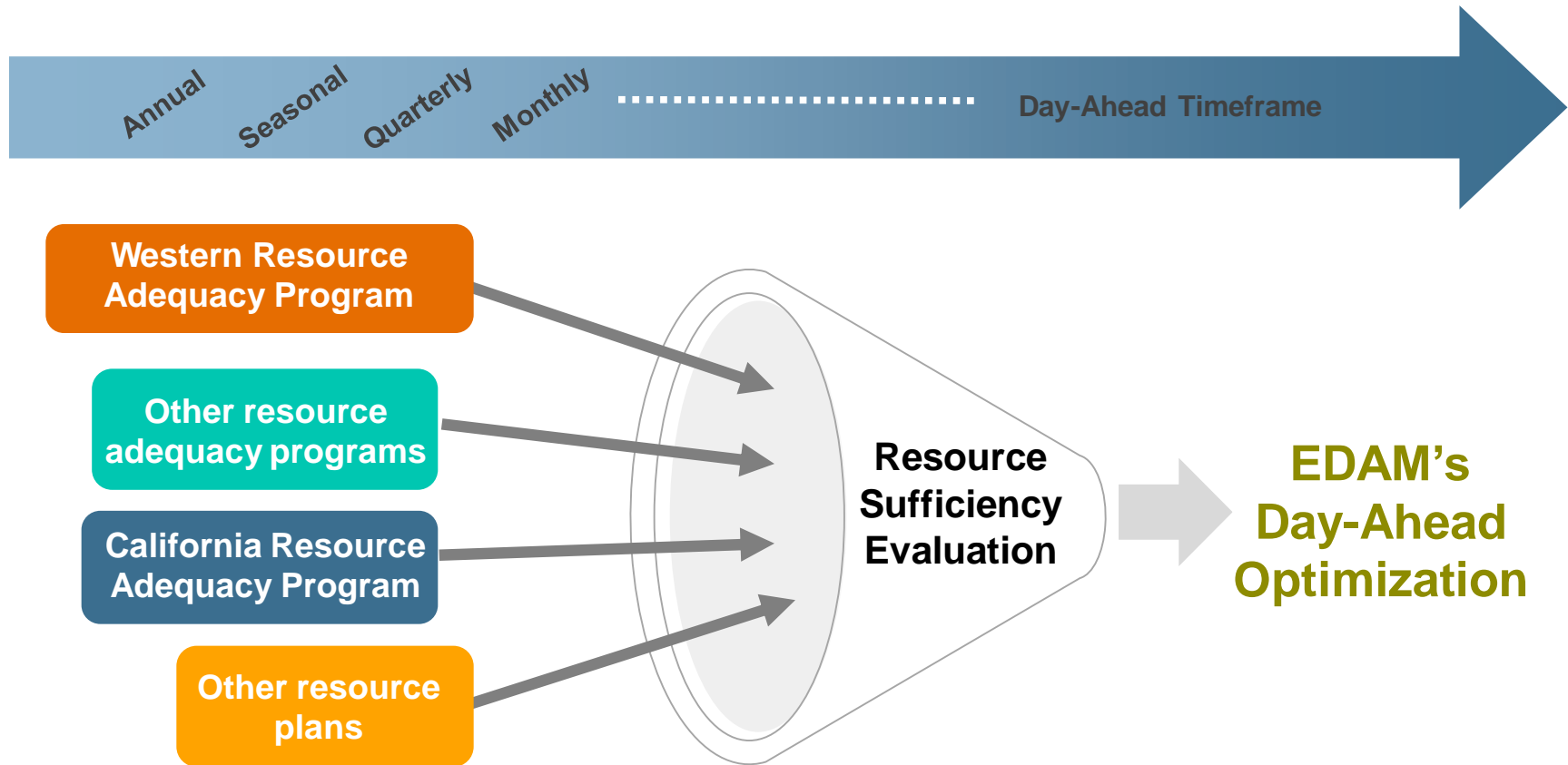
- The ISO is expanding WEIM with the extended day-ahead market (EDAM).
- EDAM allows for optimized commitment of generation across a wide area footprint in the day-ahead timeframe to **meet next day demand**.
- EDAM entities continue to **retain key responsibilities**: resource planning, transmission planning and reliability operation functions.
- PacifiCorp (PAC) and the Balancing Authority of Northern California (BANC) have indicated their intent to join the EDAM.



# EDAM builds upon the benefits of WEIM



# Resource adequacy - ensuring coordination and harmonization between resource planning programs.

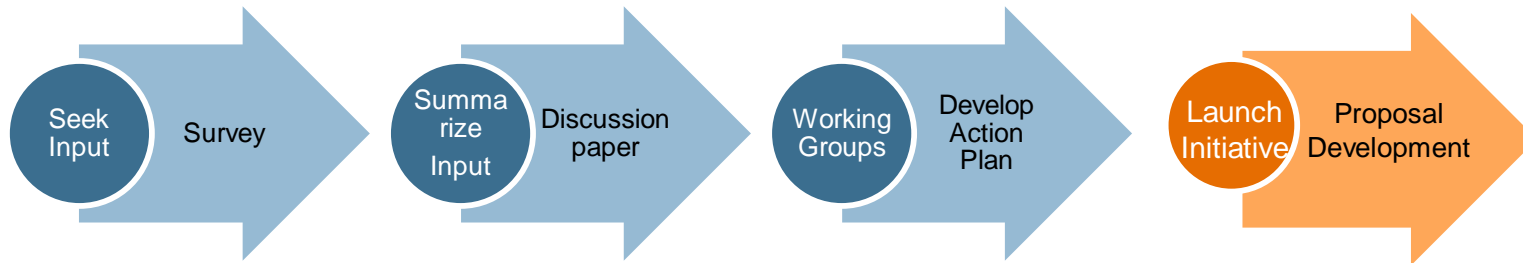


# EDAM milestones

- **2021-2022** – Extensive stakeholder engagement to develop EDAM proposal
- **February 2023** – EDAM design approved by ISO Board of Governors and WEIM Governing Body
- **August 22, 2023** – EDAM tariff filed with FERC
- **December 2023** – expected FERC decision on tariff filing
- **2024-2025** – implementation work for CAISO and EDAM entities
- **2026** – Targeted “go-live,” coordinated with participants



# An open and inclusive stakeholder process



- ***GHG Accounting Coordination*** working group focused on design evolution, consideration of diverse GHG reduction programs in the West, and market participant data needs.
- ***Price Formation Enhancements*** working group focused on scarcity pricing, fast start pricing, and market power mitigation design.
- ***Gas Resource Participation*** working group focused on exploring potential enhancements in reflecting gas resource participation and cost recovery recognizing diverse resources and gas systems across the West.

# Opportunity to **continue evolving independent governance** to facilitate a single Western market and unlock greater benefits



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