



California ISO

WESTERN ENERGY IMBALANCE MARKET (WEIM)

Briefing on Implementation of Assembly Concurrent Resolution 188

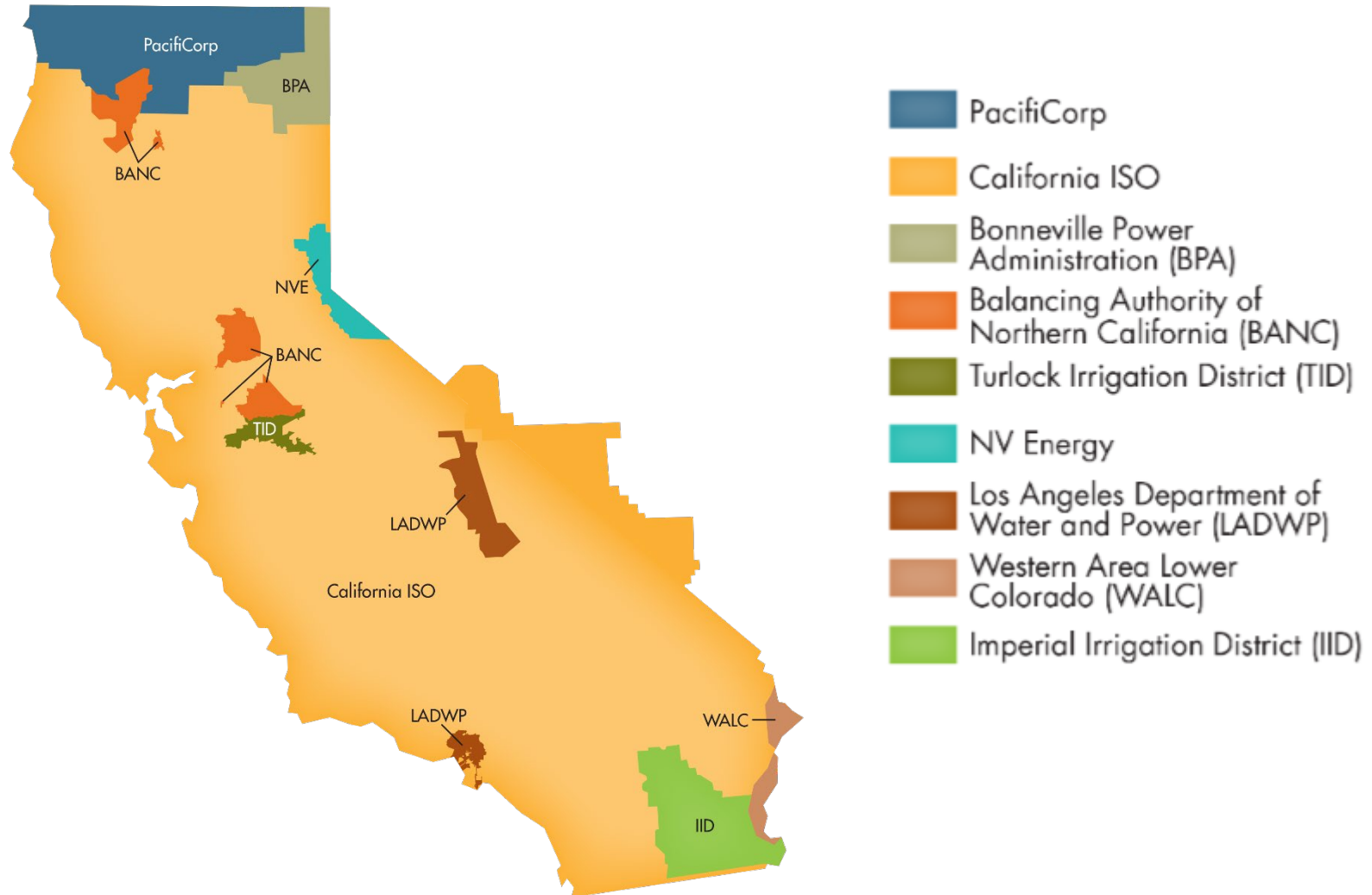
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WEIM Governing Body
General Session
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ACR 188 resolution requests that the ISO produce a report to provide the Legislature by Feb. 28, 2023

- The report should summarize:
 - Recent relevant studies on the impacts of expanded regional cooperation on California and key issues to most effectively advance the state's energy and environmental goals including an studies that reflect the impact of regionalization on transmission costs and reliability for California ratepayers
 - Relevant updates to specified transmission development and resource diversity estimates in the 2021 SB 100 Joint Agency Report
 - Regional transmission organizations in Colorado, Nevada, and other regional states, collaboration between states on energy policies to maximize consumer savings while respecting state policy autonomy, and engagement between neighboring states on the future of regional transmission organizations in the west
- ISO will consult with the California Balancing Authorities and has engaged NREL to author the report

CA Balancing Authorities partnering on the report



ACR 188 Process

Q3
2022

- CA legislature passes ACR 188
- ISO forms workgroup with CA Balancing Authorities (BAs)
- NREL contracted to summarize studies
- NREL and workgroup develop draft list of studies
- ISO holds public call and request comments on list of studies
- Comments received on list of studies

Q4
2022

- NREL reviews and summarizes studies
- NREL develops their findings, begins drafting the report
- ISO and BAs review draft report

Q1
2023

- Draft released for public feedback
- ISO, BAs, and NREL hold public stakeholder call
- Comments due Feb 3, 2023
- Report shall be submitted before Feb 28, 2023

Summary of what is driving the current value of regional cooperation

- Climate change and grid stress related to extreme weather events
- State policies for electrification in transportation, buildings, other sectors
- Transformation of the resource mix in California and the rest of the West
- Declining planning reserve margins, especially in California and the Northwest

Several states across the West have engaged in efforts to explore the benefits of regional collaboration.

- Multi-state efforts
 - Regional groups
 - *State-Led Market Study*, exploring options for regional coordination and a more coordinated approach to grid management
- Individual state efforts – legislation, regulatory proceedings, studies, etc. (e.g., AZ, CO, NV, NM, OR)

Frameworks for regional cooperation being considered in the list of studies

- The RTO model – the most comprehensive, centralizing key functions
 - A single RTO
 - Multiple RTOs in the West
- Energy Imbalance Markets - real-time dispatch
- Day-Ahead Markets – unit commitment
- Resource Adequacy coordination – shared accounting and broad look at resources available to serve the region

NREL's poses these questions to synthesize the body of literature

1. What does California other western states have to gain?
2. How well do the modes of regional collaboration achieve benefits?
3. In an RTO, how would distribution of benefits change with various models?
4. How options might uniquely affect California?

NREL's summary of the impacts to California

- All regional market options increase use of California clean energy resources, RTO providing the most benefits
- All regional market options reduce west wide CO₂ emissions
 - WEIM is reducing emissions
 - California could see diminished reduction in CO₂ if entities leave WEIM to another market
 - All RTO options provide greatest reduction of CO₂
- None of the technical studies address impacts to transmission costs specific to California, it would depend on region footprint and flow of energy

NREL's summary of the impacts to California (cont'd)

- A second RTO outside California could reduce benefits to California while other states may see more benefits
- There could be reduced benefits to California if entities choose to leave WEIM or EDAM to another market/RTO
- Operating costs – less savings if there are two markets or two RTOs versus one.
- Resource adequacy – joining regional RA program could reduce costs to California, a single RTO would provide greater capacity savings to all parties than two RTOs

Findings on the frameworks for regional cooperation

- A more comprehensive structure for cooperation (i.e., an RTO) tends to:
 - yield greater cost and decarbonization benefits
 - increase the breadth of issues that must be addressed, such as new transmission cost allocation and state roles.
- Forms of cooperation that are less comprehensive also yield benefits, even though the benefits might not be as large
- Resource adequacy costs may decrease with coordination through programs such as the Western Resource Adequacy Program (WRAP).

SB 100 Joint Agency Report updates

- SB 100 tasked the Energy Commission, the Public Utilities Commission, and the Air Resources Board to publish a report on all the progress made toward SB 100's goals, every four years.
- 2021 report looked at 3 Case Scenarios (60% RPS, SB 100 Core, High Electrification Study)
- Findings in all three scenarios:
 - capacity needs to increase significantly. Example: 110 GW in 60% Scenario
 - new transmission fixed costs will be in the billions
 - greater reliance on imports is necessary
- No new updates - next report is planned for 2024 with demand forecasts substantially surpassing the 2021 findings

- ❖ ACR 188 project information on Regional Solutions webpage:
<http://www.caiso.com/informed/Pages/RegionalSolutions.aspx>
- ❖ Stakeholder comments due by **February 3, 2023** – template is available on webpage linked above
- ❖ Submit questions or comments on ACR 188 to infoACR188@caiso.com