

DOCKETED

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Balancing Authority of Northern California (BANC) Comments

*SB 100 Workshop
Sacramento, CA*

February 24, 2020

BALANCING AUTHORITY OF NORTHERN CALIFORNIA

A JOINT POWERS AUTHORITY BETWEEN

Modesto Irrigation District | City of Redding | City of Roseville | Sacramento Municipal Utility District | City of Shasta Lake | Trinity Public Utility District

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Introduction

- BANC supports the aspirational goals of SB100 on a “net zero” carbon basis
- SB100 implementation must balance carbon reduction with the equally important goals of safety, reliability, and affordability
- SB100 implementation requires a well thought out transition plan
 - Proven operations at a scalable level in the bulk system that new resource technologies can deliver traditional grid operational capabilities before existing resources are abandoned
- Electrifying transportation and building infrastructure is viewed as most cost effective carbon reduction over the next 20-25 years
 - Transportation and Buildings sectors own 53% of the State’s GHG emissions
 - Electricity owns only 15% of the State’s GHG emissions
 - Transition must be done cost effectively or rates may rise too quickly and reduce the value of electrification to customers



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BANC Comments

- Planning for Reliability and Resource Adequacy going forward
 - Thermal & hydro capacity/energy are in the plan for the next 20-25 years
 - Existing Hydro generation must continue to count as a carbon-free resource
 - Hydro is one of the best no carbon, flexible, dispatchable and reliable assets available to help balance and integrate renewables
 - Expect significant reductions in NG generation capacity factors over next 20 years (from ~70% to ~20%)
 - Additional renewables and storage will be phased in over the 20-25 year horizon; Other technologies evaluated as they become proven and cost effective



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BANC Comments (2)

- Flexible/Dispatchable Resource Needs for Grid Reliability
 - Managing real-time fluctuations from intermittent renewable resources
 - Managing morning & evening ramps
 - Providing capacity/energy during low solar/wind production periods
 - Requires days/weeks of capability; not just hours
 - Consideration for low hydro events should be included as well when exploring impacts of SB100



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BANC Comments (3)

- 25 Year View: Challenges of Moving Away from NG Resources
 - Need for new resources that can match today's capabilities
 - Reliability Services, such as frequency, inertia and voltage support
 - Long duration capabilities
 - Days/weeks; not just hours



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BANC Comments (4)

- Critical Innovation Over Next 25 Years
 - Long duration resources that can match current resource capabilities
 - Alternative fuels
 - Renewable gas
 - Hydrogen
 - Requires major global R&D investment program



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BANC Comments (5)

- Transmission Planning Needs/Opportunities
 - With the retirement of the existing generation fleet, changes in the Western grid transfer capabilities may need to be evaluated
 - Broader regional planning needed to respond to & analyze these shifts
 - An RTO is one solution, but not the only solution
 - Consolidation of Regional Planning Groups in West is a viable alternative



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BANC Comments (6)

- Draft Modeling Scenarios
 - Concur with prior CAISO comment that PATHWAYS Policy Cases are really one case with various “sensitivities”
 - Need a case with High Electrification that allows low levels of combustion (say at 20% capacity factors) as a reference for “net” carbon production



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