

Western Collaboration: Synopsis of Regional Entities and Priorities

The Western Interconnection includes all or parts of 14 western states, Alberta, British Columbia, and Baja California. Collaboration with Western Interstate Energy Board (WIEB), the Committee for Regional Electric Power Cooperation (CREPC) and the Western Interconnection Regional Advisory Body, (WIRAB) ensures California energy policies including pursuing zero-carbon energy planning are implemented in a manner that ensures electricity reliability.

Western Interstate Energy Board: WIEB is an organization of 11 western states and two western Canadian provinces. The Board promotes energy policy that is developed cooperatively among member states, provinces, and the federal government. The members are: Alberta, British Columbia, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and (ex officio), US DOE.

Committee on Regional Electric Power Cooperation: CREPC is one of two major committees sponsored and overseen by WIEB; it coordinates and directs the electricity-related dimensions of WIEB policy development. Its primary function is to facilitate information exchange between the western states. Membership is open to all state entities and staff, including energy offices, public utility commissions, consumer offices and environmental planning/regulators. Participation in meetings and webinars is open to all stakeholders engaged in western energy policy.

Western Interconnection Regional Advisory Body: Created by western governors under Section 215(j) of the Federal Power Act. Section 215 provides for the establishment of a federal regulatory system of mandatory and enforceable electric reliability standards for the nation's bulk power system. WIRAB provides advice to the NERC, WECC and the FERC on electric system reliability. The members are: Alberta, Arizona, British Columbia, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming.¹

II. Priority Initiatives—2020-2022: WIEB/CREPC

1. Resource Adequacy in the Western Interconnection. WIEB staff is partnering with LBNL to assess current practices and opportunities to improve resource adequacy assessments and integrated resource planning across the Western Interconnection. WIEB will also conduct a 2020 Resource Planners Forum.

2. Western Flexibility Assessment – State & Provincial Outreach. WIEB completed an investigation of the operational flexibility of a future western grid with high renewables (2025 to 2035-time horizon). In FY 2020-21, WIEB will share findings on future grid operations and options to improve grid flexibility.

3. Renewable Energy and Carbon Reduction Policies in the West. WIEB will research and catalogue current Western state and provincial renewable energy and carbon reduction policies, developing a whitepaper and presentation summarizing these policies to share Western electric utility policy makers.

4. Carbon Capture, Utilization & Storage Workshop. WIEB will host a Carbon Capture, Utilization & Storage (CCUS) Workshop in Fall 2020, to discuss the current state of CCUS technology, CCUS-related challenges and opportunities, and federal and state CCUS policies and incentives.

5. WIEB-NASEO Collaboration on Overcoming EV Infrastructure Challenges. In collaboration with the National Association of State Energy Offices (NASEO), WIEB will study barriers to the expansion of the Electric Vehicle (EV) marketplace, including: 1) demand charges; and 2) deploying EV infrastructure in rural and remote communities; and, conduct outreach.

¹Governor Newsom also participates in the Western Governors' Association (WGA), which is an instrument of the governors of 19 states and 3 U.S Territories for bipartisan policy development, information exchange, and collective action on issues of critical importance to the Western United States.

6. WIEB Policies on the Transportation of Spent Nuclear Fuel. WIEB's High-Level Radioactive Waste (HLRW) Committee will develop and share policies regarding acceptable transportation of nuclear fuel.

7. WIEB 2020 Summer Internship. Stanford University students will develop a conceptual model for a wildfire public safety power shutoff data system and conduct a webinar designed to share this model and lessons learned with Western electric utility policy makers and regulators.

II. Priority Initiatives—2020-2022: WIRAB

1: Advise WECC to improve its assessment of resource adequacy to ensure that state and provincial regulators, FERC, and NERC have access to accurate, consistent, and timely information to inform capacity expansion decisions in the West.² Information on long-term resource adequacy (i.e., over a 5- to 10-year planning horizon) to determine whether the six sub-regions of the Western Interconnection will have sufficient generation resources available to meet future loads and to inform near-term decisions about capacity expansion.

Initiative 2: Advise WECC to assess the reliability benefits and risks in implementing dynamic line ratings (DLRs) throughout the Western Interconnection. Improvements to Bulk Power System reliability and market efficiency in the Western Interconnection can be achieved by implementing Ambient-Adjusted Ratings (AAR) and Dynamic Line Ratings (DLR). These ratings maximize the use of real-time data (e.g., topology, scheduled outages, generation and load levels, phasor measurements data, etc.) in the calculation of Total Transfer Capabilities (TTC) and System Operating Limits (SOL), which in turn provides for significantly improved planning studies and real-time system operations.

Initiative 3: Advise Western Reliability Coordinators on opportunities to improve operational performance metrics to ensure consistency, to identify best practices, and to strive for exceptional reliability in the West. Three entities, are responsible for the Reliability Coordinator (RC) function for most of the Western Interconnection, including the California ISO-administered RC West. (RCs are responsible for maintaining the system-wide situational awareness of the bulk power system in the WI). While the RCs have adopted a set of consistent metrics to measure operational performance, they must use operations during 2020 to establish baseline levels for their performance metrics going forward.

Initiative 4: Advise WECC to perform comprehensive and forward-looking assessments of the provision of essential reliability services as many states and provinces set goals addressing a possible "100% clean" or zero carbon energy future in the West.

Many western states, municipalities, corporations, and utilities have adopted these stretch zero-carbon policy goals, each with a distinct definition of what economic sectors and timeframes the goal applies to. California for example has a policy goal of 100% zero carbon electricity by 2045, a stretch goal supported by a statutory requirement for 60% renewable electricity retail sales by 2030. To date, no entity has performed a comprehensive reliability assessment of how these major electricity-related changes might collectively impact the reliability of the WI. WIRAB is requesting WECC, as the reliability entity in the Western Interconnection, to conduct long term (10-20 year) reliability assessments that investigate a comprehensive list of essential reliability services necessary to maintain reliability in varied operational timeframes including frequency response; transient stability; dynamic stability; voltage stability; and, weak grid issues as measured by short circuit ratios, and small-signal stability issues.

² WECC the regional entity for the WI is delegated responsibility for planning and for compliance enforcement of mandatory federal reliability requirements through an agreement with NERC/FERC. WECC also has Reliability Priorities which in many respects are similar to and compatible with these state entity initiatives.