Summer Readiness Leadership Roundtable

Preparing for potential extreme heat events this summer is the top priority for the California Independent System Operator (ISO) and other utilities across the Western United States. Last summer’s west-wide heat event, resulting in stressed grid conditions and rotating outages, highlighted the importance of advanced planning, coordinated actions, and effective communication to ensure that our infrastructure and interconnected operations are as prepared as possible for this summer and beyond. On April 15, the California ISO’s President and CEO, Elliot Mainzer, convened a video conference of 18 key industry participants from within California and neighboring states. The ISO shared its outlook on summer conditions and updated participants on its efforts to improve operations, based on lessons learned in the Final Root Cause Analysis. The ISO and participants shared and discussed their plans for summer readiness, including steps taken to mitigate identified risks.

The pragmatic and frank discussion helped to strengthen important relationships and resulted in a commitment to continue regular dialogue and collaboration to maintain grid reliability this summer. The participants developed a shared understanding of challenges and risks, discussed specific opportunities to better anticipate and respond to stressed operating conditions, and acknowledged the importance of longer-term planning and coordination to fortify resource adequacy across the West.

The ISO shared its preliminary look at summer conditions. Even with 3,000 – 3,500 MW of additional capacity expected to be online this summer as a result of recent emergency and previous years’ procurement orders by the California Public Utilities Commission, the grid still remains vulnerable to widespread heat events. Such events drive up load and reduce available power transfers and imports to California, a scenario that is compounded by this year’s significantly below-average hydro conditions.

A fraction of the new capacity coming online will be battery storage resources that will play a key role in maintaining reliability after sunset. Forward procurement of imports, expansion of demand response programs, and retention of some gas-fired generation will also help mitigate, but not completely eliminate, the risks associated with extreme heat events this summer. The final 2021 Summer Loads and Resources Assessment will be released in May.
In response to the findings in the Final Root Cause Analysis, the ISO launched several market policy enhancements to help ensure efficient market operations and grid reliability in preparation for this summer’s hot weather. These were developed with significant stakeholder input, and have been filed with the Federal Energy Regulatory Commission (FERC) for approval and will be implemented in the coming months. Details on these enhancements can be found here. The ISO has also taken steps to better ensure the availability of generation resources during peak and to streamline the interconnection of new resources to the grid.

In cooperation with the CPUC and the CEC, the ISO is developing a more robust communication strategy in advance of the summer to better inform the public about the potential for stressed grid conditions and steps they can take to be part of the reliability solution. This includes a significant expansion of the statewide Flex Alert advertising campaign as well as the launch of a pilot Emergency Load Reduction Program. The ISO is refreshing its emergency notifications, providing advanced heat wave notices, expanding social media messaging, and adding breaking news about system conditions and educational fact sheets to its website and mobile app.

Roundtable participants agreed that in addition to the potential for extreme west-wide heat, summer reliability risks also include wildfires, especially those threatening transmission lines; lower than normal hydroelectric conditions; uncertain resource performance under extreme conditions; inadequate planning for resource retirements and the loss of significant units; load forecast inaccuracy; derates on transmission lines at the interties; and the potential that not all expected new resources will come online on time. Participants also noted uncertainties such as residential and industrial load growth; the potential impact of people returning to work in the post-COVID environment; and the uncertainties associated with the performance of the large fleet of battery storage resources coming onto the grid for the first time this summer. With increasing scarcity of generation resources and competition for transmission capacity in the West, some expressed the need to continue to work on durable solutions to ensure fair and equitable access to the grid to serve both native load as well as exports and wheel-throughs during times of tight supply and constrained transmission.

Participants at the roundtable also acknowledged the need for effective long-term resource adequacy planning and inter-regional coordination to address the retirement of older thermal resources and the major transition to higher levels of variable renewable energy resources to address climate change.

Following the roundtable, the ISO’s operations division conducted tabletop exercises with California entities and adjacent balancing authorities, including a walk-through of various grid scenarios, designed to improve emergency communications and operational readiness.

In summary, the Summer 2021 Readiness Leadership Roundtable served as a valuable forum to jointly review the lessons learned and actions resulting from last summer, to assess this summer’s supply and demand fundamentals, to discuss the collective steps that are already being taken to address potentially stressed grid conditions, and strengthen communication and coordination amongst the various organizations that will play a significant role in ensuring reliable summer operations.

Visit the Summer Readiness page for regular updates.