

Memorandum

To: ISO Board of Governors

From: Stacey Crowley, Vice President, Regional and Federal Affairs

Joanne Serina, Director, Customer Service and Stakeholder Affairs

Date: May 9, 2018

Re: State, Regional and Federal Affairs update

This memorandum does not require Board action.

STATE AFFAIRS

Regulatory update

Aliso Canyon update:

On May 8, 2018, an Integrated Energy Policy joint agency workshop was held on energy reliability issues in Southern California. ISO staff joined representatives of the California Energy Commission (CEC), the California Public Utilities Commission (CPUC) and the Los Angeles Department of Water and Power in a joint presentation on reliability issues associated with the Aliso Canyon gas storage facility, which is owned and operated by the Southern California Gas Company (SoCalGas).

Current status of the SoCalGas system:

- As of July 19, 2017, SoCalGas may inject gas into the Aliso Canyon storage facility, up to a level approved by the CPUC.
- The Aliso Canyon approved limit is now 24.6 Bcf, approximately 28 percent of capacity, as authorized by the CPUC on December 11, 2017.
- Withdrawals are limited to conditions needed to preserve reliability.
- The overall system is handicapped by continuing pipeline outages that may grow over the summer period (April 1 to October 31).

- The SoCalGas system remains at less than full capability, to the extent that reliable natural gas service to noncore customers, including electric generators, is threatened.

The ISO worked closely with the joint agency team to complete the Aliso Canyon Risk Assessment Technical Report – Summer 2018. Key findings from the report:

- Electric reliability can be maintained on a 1-in-10-year electric peak day without using gas from Aliso Canyon, assuming 100% transmission import utilization and availability of non-gas fired generation in the Southern California region.
- If pipeline supply is reduced or storage inventory at the non-Aliso facilities is inadequate, the system could face challenges.

If the electric system is not fully available or electric supplies outside of Southern California are limited, the electric system could still be at risk. Other risks factors include prolonged hot weather affecting gas supply availability and reduced electric import capability.

The 2017 Aliso Canyon Action Plan implementation and a mild summer weather pattern helped to prevent significant electric generation curtailments during summer 2017. The joint agencies continue to work on over 30 mitigation measures in 2018.

The long-term use of the Aliso Canyon natural gas storage facility is being addressed in a CPUC Order Instituting Investigation proceeding (I.17-02- 002), which was opened on February 9, 2017. In Phase 1, the Commission is undertaking an effort to develop the appropriate analyses and scenarios to evaluate the impact of reducing or eliminating the use of Aliso. Phase 1 will be resolved by the issuance of an Assigned Commissioner's Ruling providing guidance on the scenarios and assumptions that will be evaluated in Phase 2. In Phase 2, the Commission will evaluate the impacts of reducing or eliminating the use of Aliso using the scenarios and models adopted in Phase 1. The results of the models will inform the Commission's decision on the appropriate use of the storage field.

Legislative update

The Legislature reconvened from Spring Recess on April 2 and have until June 1 to pass bills out of their house of origin. At this time, staff is monitoring approximately 70 measures relevant to the ISO or the energy sector in general.

Key Legislation:

AB 813 (Holden): Mandates that any regional transmission operator which a California-based utility, energy service provider, or community choice aggregator, publicly owned utility or transmission operator joins, complies with California's market-based compliance mechanism for limiting greenhouse gas (GHG) emissions when serving electric load in California and adheres to transparency and state procurement policies. The measure also requires the ISO to submit a governance proposal to the CEC that, among other provisions, includes the establishment of a western states committee. The proposal shall be reviewed by the CEC, in consultation with the CPUC and California Air Resources Board (CARB), in at least one public workshop or hearing where public comments can be provided. Lastly, the bill requires the CEC to authorize and verify that the ISO implements a governance structure consistent with the proposal.

AB 2208 (Aguilar-Curry): Requires an unspecified percentage of geothermal, biogas, and biomass energy resources be procured to meet incremental RPS targets, until an unspecified percentage of those resources meet overall procurement requirements or December 31, 2030, whichever occurs first.

AB 2693 (Quirk): Requires the CPUC, in consultation with the ISO, to determine which natural gas-fired electric generating units are needed to ensure short-term and long-term electric reliability in California. It also requires the CPUC, in consultation with CARB, to identify preferred generating units and ensure they receive sufficient revenues to remain operational.

SB 64 (Wieckowski): Requires the ISO by 2019, in consultation with the CPUC, CEC, CARB, and the public, to review and revise its operations to mitigate impediments to the day-ahead scheduling of intermittent renewable energy resources between the ISO and other balancing authority areas to address oversupply conditions. The bill does not facilitate the transformation of the ISO into a regional entity.

SB 100 (De León): Establishes a 60 percent Renewable Portfolio Standard by 2030 and requires the CPUC, CEC, and CARB to incorporate a planning goal of achieving 100 percent reliance on zero-carbon electric generating facilities by December 31, 2045.

SB 692 (Allen): Requires the ISO to undertake a stakeholder initiative to consider modification of the billing determinants to which the ISO applies the transmission and wheeling access charges.

SB 901 (Dodd): Requires electrical corporations and local publicly owned utilities to develop wildfire mitigation plans and measures containing a description of factors they

will use to determine when it may be necessary to deenergize electric lines and deactivate its reclosers.

SB 1088 (Dodd): Requires the Office of Emergency Services to adopt standards for reducing risks from a major event, including actions that may be undertaken by an electrical or gas corporation, a local publicly owned electric or gas utility, or a water utility to reduce the risk of fire during a major event.

SB 1110 (Bradford): Authorizes publicly owned utilities to implement conditions that reduce the loss of public revenues if procurement requirements of renewable energy resources lead to decreased generation from a power plant with outstanding public indebtedness.

SB 1136 (Hertzberg): Requires the CPUC, in establishing resource adequacy requirements, to ensure reliability of electric service in California while advancing the state's clean energy goals and minimizing the need for backstop procurement by the California ISO.

SB 1339 (Stern): Requires electrical corporations and local publicly owned electric utilities, before an unspecified date, to develop and submit an electrical grid resiliency deployment plan to the CPUC or, for local publicly owned electric utilities, its governing board. It also requires the CPUC to complete a proceeding that considers the role of microgrids in providing grid resiliency.

SB 1347 (Stern): Requires the CPUC, by January 1, 2020, to direct load-serving entities to procure a proportionate share of 2,000 megawatts of energy storage. The bill authorizes load-serving entities to own and operate a certain percentage of these energy storage systems, measured by capacity, if certain conditions are met.

SB 1399 (Wiener): Requires the CPUC to direct large electrical corporations to provide credits for nonresidential customers who generate electricity from renewable energy resources and that is exported to the electrical grid. It also requires the CPUC to ensure that the credits reflect the full value of the electricity and utilize the same methodology used to determine credits for other customer generation.

STRATEGIC ALLIANCES AND REGIONAL AFFAIRS

Energy Imbalance Market:

The Q1 2018 energy imbalance market (EIM) benefits report recently released showed total EIM benefits for the quarter of over \$42 million. This raises the total benefits to over \$330 million since the EIM began in November, 2014. The Q2 2018 EIM benefits

report will be released in late July and will include Idaho Power and Powerex for the first time, following their activation in EIM on April 4, 2018.

Project work continues with four other entities: BANC/SMUD is scheduled for participation in April 2019, and Salt River Project, Los Angeles Department of Water and Power, and Seattle City Light in April 2020.

On March 29, Public Service New Mexico filed initial results of their study of EIM, Southwest Power Pool, and Mountain West Transmission Group with the New Mexico Commission. Discussions are ongoing with Public Service New Mexico.

Energy Imbalance Market Governance:

The EIM Governing Body held a meeting in Vancouver, B.C. on April 24. In general session they heard a proposal from the ISO on imbalance conformance enhancements, briefings on the progress of the EIM Nominating Committee, the quarterly policy outlook, and updates from the Regional Issues Forum (RIF) and the Body of State Regulators (BOSR). The Governing Body voted to support the imbalance conformance enhancements policy initiative that falls partially within both their primary and advisory role. The next in-person general session meeting will be held on June 20 in Folsom, CA.

The Body of State Regulators had its second quarter meeting in Vancouver, B.C. on April 18. They heard updates from the ISO on the activities of the Nominating Committee, the greenhouse gas compliance initiative, and the day ahead market enhancements initiative. Powerex and Idaho Power Company reported on their experience with EIM implementation and operations. The next in-person meeting of the Body of State Regulators is scheduled for October 17 in San Diego, CA.

The Regional Issues Forum (RIF) sector liaisons, led by Cameron Yourkowski as chair, held a scheduled call on April 25. The agenda included discussions and preparation of the proposed agenda for the next in-person meeting of the liaisons on June 6 in Portland, OR.

FEDERAL AFFAIRS

Administration

On March 27, the Department of Energy (DOE) National Energy Technology Laboratory released a study entitled “Reliability, Resilience and the Oncoming Wave of Retiring Baseload Units: The Critical Role of Thermal Units during Extreme Weather Events.” The study examines the winter storm known as the “bomb cyclone” that occurred from December 27, 2017 to January 8, 2018 in the eastern wholesale electricity markets. It

finds that fossil and nuclear energy provided 89% of peak demand in all regions studied, with 69% provided by fossil resources that were mostly baseload. Pipeline constraints forced ISO-New England to rely on fuel oil and quickly depleted oil storage reserves. Coal provided the most resilient generation in the PJM Interconnect, which would likely have experienced region-wide blackouts without the available capacity. The report estimates the value of fuel-based resilience in PJM during the bomb cyclone at \$3.5 billion. It concludes that since markets do not compensate resilience, coal and nuclear capacity is steadily diminishing and retirements could ultimately result in reliability concerns. Maintaining grid resilience continues to be an item of interest to the DOE, which has received requests to provide emergency support for coal and nuclear plants in the PJM Interconnect under the provisions of both the Federal Power Act Section 202(c) and the Defense Production Act. To date, no federal action has been taken.

On April 17, the DOE announced that it will dedicate \$105.5M to projects aimed at developing solar energy technologies, including \$46M to support projects that will improve the integration of solar energy into grid operations. Proposals are due on June 26.

On April 18, the Bureau of Land Management approved the final two segments of the Gateway West 500 KV transmission project, a 1000-mile line stretching from southern Wyoming to eastern Idaho. The Decision Record gives Idaho Power and Rocky Mountain Power rights of way on federal lands connecting portions of the project that were previously approved.

Congress

On March 23, Congress passed an omnibus spending bill for the balance of Fiscal Year 2018, which ends on September 30, ending the threat of a government shutdown after five short-term continuing resolutions. The measure, Public Law 1115-141, includes \$34.5 billion for DOE programs, including more than \$100 million for electric grid cybersecurity. The bill also provides \$6.3 billion for science research programs, \$2.3 billion for energy efficiency and renewable energy, \$1.2 billion for nuclear energy, \$727 million for fossil energy, and \$7.1 billion for environmental management. It also provides \$353 million for the Advanced Research Projects Agency-Energy (ARPA-E), which was initially at risk of being eliminated altogether. Funding for the Environmental Protection Agency is frozen at the current level of \$8.06 billion. The omnibus also allows for higher funding levels for wildfire suppression that has previously been available. Work is now ongoing on Fiscal Year 2019 agency funding, which leadership hopes to advance as a series of individual bills rather than an omnibus.

Legislation:

H.R. 2371 (Paul Gosar, R-AZ): “Western Area Power Administration (WAPA) Transparency Act.” Directs WAPA to establish a seven-year pilot project that publicly displays information, dating back to 2008, on rates charged by power systems to customers for power and transmission services, the amount of capacity or energy sold by power systems, accounting of expenditures and capital costs by region, and the unobligated balances at the end of each year. Status: Passed House by voice vote on February 7.

H.R. 2872 (Larry Bucshon, R-IN): Allows FERC to exempt hydropower projects at existing non-powered dams from licensing requirements. Status: Passed House by voice vote on December 11, 2017.

H.R. 2880 (Morgan Griffith, R-WV): Promotes closed-loop pumped storage projects connected to reservoirs. Status: Passed House by voice vote on December 11, 2017.

H.R. 3359 (Michael McCaul, R-TX): Restructures the Department of Homeland Security’s National Protection and Programs Directorate, which focuses on eliminating threats to critical physical and cyber infrastructure. Status: Passed House on December 12, 2017 by voice vote.

H. Res. 357 (Jeff Duncan, R-SC): Reaffirms the strategic partnership between the U.S. and Canada to cooperate on energy, security and economic issues. Status: Passed House by voice vote on December 12, 2017.

S. 2232 (Angus King, I-ME): “Next Generation Grid Resources and Infrastructure Development (GRID) Act.” Provides federal support for states and utilities to evaluate their electricity systems and identify areas where distributed energy resources could assist in protecting critical infrastructure or reducing costs. Also recommends parameters for states to use in designing rules for distributed energy resource integration in grid operations and establishing appropriate compensation mechanisms. Status: Introduced in Senate on December 14, 2017 and referred to the Committee on Energy and Natural Resources.

S. 2444 (Maria Cantwell, D-WA): “Advanced Grid Security Act.” Authorizes new programs to address power system cyber vulnerabilities. Status: Introduced in Senate on February 16, 2018 and referred to the Committee on Energy and Natural Resources.

S. 2445 (Maria Cantwell, D-WA): “Grid Modernization Act.” Provides for advancing new technologies, particularly those for microgrids and electric vehicles. Status: Introduced in Senate on February 16, 2018 and referred to the Committee on Energy and Natural Resources.

H.R. 5174 (Tim Walhberg, R-MI and Bobby Rush, D-IL): “Energy Emergency Leadership Act.” Requires the Secretary of Energy to name an Assistant Secretary to oversee energy security and energy emergency functions for infrastructure, cybersecurity, emerging threats, energy supply emergencies, planning coordination, and response and restoration. Status: Passed House Energy and Commerce Energy Subcommittee on April 17, 2018 and referred to the Committee on Energy and Natural Resources.

H.R. 5175 (Fred Upton, R-MI and Dave Loebsack, D-IA): Establishes a program to coordinate federal agencies, states and private industry to ensure the security, resiliency and survivability of pipeline and LNG facilities and authorizes the DOE to coordinate response and recovery following physical and cyber incidents impacting these facilities. Status: Passed House Energy and Commerce Energy Subcommittee on April 17 by voice vote; referred to the full committee for consideration.

H.R. 5239 (Bob Latta, R-OH and Jerry McNerney, D-CA): “Cyber Sense Act.” Establishes a voluntary program within the DOE that identifies and promotes cyber secure products for use in the bulk power system. Status: Passed House Energy and Commerce Energy Subcommittee on April 17 by voice vote; referred to full committee for consideration.

H.R. 5240 (Bob Latta, R-OH, and Jerry McNerney, D-CA): “Enhancing Grid Security through Public-Private Partnerships Act.” Establishes a DOE program to facilitate public-private partnerships to advance physical and cyber security for electric utilities and allows the DOE to coordinate with state regulators to enhance distribution system cyber and physical security. Status: Passed House Energy and Commerce Energy Subcommittee on April 17 by voice vote; referred to full committee for consideration.