

Memorandum

To: ISO Board of Governors

From: Roger Collanton, Vice President, General Counsel, Chief Compliance Officer,

and Corporate Secretary

Date: September 11, 2019

Re: Regulatory update

This memorandum does not require Board action.

Highlights

- ISO filed a tariff amendment to enhance commitment costs and default energy bid calculations
- ISO filed a tariff amendment in compliance with Order No. 831 increasing the bid cap for cost verified bids
- ISO filed a tariff amendment to implement the third phase of market rule enhancements related to energy storage and distributed energy resources
- ISO filed a tariff amendment to implement the third phase of interconnection process enhancements
- FERC accepted the ISO's tariff amendment to enhance the real-time imbalance energy offset calculation
- ISO filed an answer to a complaint filed by Nevada Hydro Co. regarding the Lake Elsinore Advanced Pumped Storage Project

Federal Energy Regulatory Commission and related Court of Appeals matters

Real-time imbalance energy offset calculation (ER19-2497)

On September 6, 2019, FERC accepted the ISO's July 30, 2019, tariff amendment to revise its real-time imbalance energy offset calculation. As a revenue-neutral market

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operator, the ISO must reconcile settlement values for all real-time energy charge codes to ensure there is neither a shortage nor surplus in revenue after calculating all payments and charges. The real-time imbalance energy offset is used to recover the difference between receipts from load and payments to supply for energy in the real-time market. The tariff amendment proposed two revisions to the RTIEO calculation: modification to how the ISO financially values energy imbalance market energy transfers in the calculation of the real-time imbalance energy offset, and modification to how it allocates the real-time imbalance energy offset charges and credits. The changes are effective as of August 1, 2019.

• Order No. 831 Compliance Filing (ER19-2757)

On September 5, 2019, the ISO submitted a filing in compliance with the requirements of FERC Order No. 831, which established: (1) an offer cap structure requirement, (2) a verification requirement for cost-based incremental energy offers, (3) a resource neutrality requirement, and (4) requirements for virtual transactions and external transactions. These tariff revisions build upon tariff revisions proposed in the commitment costs and default energy bid enhancements filing the ISO submitted on August 30, 2019. The ISO proposes to implement the proposed revisions by December 31, 2020.

Energy storage and distributed energy resources – Phase 3 (ER19-2733)

On September 3, 2019, the ISO filed a tariff amendment to enhance demand response participation in the ISO market. These enhancements result from the third phase of the ISO's energy storage and distributed energy resource initiative. The two proposed sets of enhancements include providing hourly and fifteen-minute scheduling options for demand resources in the real-time market, and removing the requirement that demand response resources aggregate within a single load-serving entity, and converting the net benefits test from a settlement adjustment to a bid floor. The ISO proposes to implement the proposed revisions on November 13, 2019.

Commitment costs and default energy bid enhancements (ER19-2727)

On August 30, 2019, the ISO filed a tariff amendment to enhance its market rules so suppliers can request adjustments to their ISO-calculated commitment cost and energy price reference levels to more accurately reflect their costs. Current tariff rules do not permit suppliers to request updates to cost-based ISO-calculated reference levels, which in certain instances can result in cost-based reference levels that do not sufficiently compensate suppliers and could prevent the ISO from scheduling or dispatching resources optimally through its market. The ISO proposes pre- and post-market procedures to allow suppliers to request changes to their reference levels that reflect increases in their fuel cost exposure, and also verify supplier bids that exceed \$1,000 per megawatt-hour. The verification rules proposed in this tariff amendment are necessary to support the ISO's compliance with Order No. 831, filed on September 6,

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2019. The ISO proposes to implement the proposed revisions no later than December 11, 2019.

Interconnection process enhancements – Phase 3 (ER19-2679)

On August 23, 2019, the ISO filed a tariff amendment to improve its generator interconnection procedures, in five ways: (1) increasing disbursement limit established in 2012 for reliability network upgrades to account for inflation and higher contrition costs, (2) clarifying rules for transferring deliverability among interconnection customer's generating units, (3) clarifying cost allocation rules for affected Participating Transmission Owners (PTO) and the interconnecting PTO, (4) clarifying the cost allocation rules for different categories of network upgrades, and (5) removing the requirement that interconnection customers execute generator interconnection agreements within one year of receiving a deliverability allocation. The ISO proposes to implement the proposed revisions by October 23, 2019.

Order on rehearing and clarification regarding generation costs filing (Amendment 60) (EL14-67)

On August 28, 2019, FERC issued an order on rehearing and clarification regarding a proceeding established in 2004 after the ISO's filing of a tariff amendment in which it proposed, among other things, to allocate must-offer generation costs using a rate design based on classification of the transmission path (local, zonal or system reliability). After a series of filings, evidentiary hearings and orders, FERC found that the South of Lugo path was more appropriately classified as a zonal constraint, which was upheld by the Court of Appeals for the D.C. Circuit. The ISO filed a refund report regarding resettlements based on the reclassification, and implemented refunds. FERC now finds that the resettlements reflected in ISO's refund report render the most fair and equitable outcome under the circumstances of the proceeding, and that interest should be applied to the resettlements. The ISO was ordered to submit a compliance filing by October 28, 2019, reflecting the invoices it plans to distribute for interest amounts.

• Order on rehearing of Congestion Revenue Rights order (ER18-1344)

On August 22, 2019, FERC issued an order denying rehearing requests filed by Appian Way Energy Partners, LLC and Mercuria Energy America, Inc., DC Energy, LLC and Vitol Inc., and Western Power Trading Forum. These parties requested rehearing of FERC's June 29, 2018, order accepting the ISO's proposed tariff amendments to improve the efficiency of its congestion revenue rights (CRR) auction, effective July 1, 2018. FERC generally disagreed with the parties that the ISO's proposal infringed on open access transmission service and found it had adequately responded to all their protests in the original order.

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Tariff clarifications amendment (ER19-1837)

On August 9, 2019, FERC issued an order accepting the tariff revisions submitted to correct inadvertent errors and inconsistencies, and to clarify several provisions including ancillary services procurement, metering, day-ahead and real-time market rules as well as resource adequacy. The proposed tariff revisions are effective August 12, 2019, subject to the ISO submitting a compliance filing to revise a tariff section consistent with revisions suggested by a market participant, and agreed to by the ISO.

Answer to complaint by Nevada Hydro Co. (EL19-81)

On July 22, 2019, the ISO answered Nevada Hydro's June 17, 2019 complaint, alleging that the ISO failed to follow its tariff in studying the Lake Elsinore Advanced Pumped Storage Project (LEAPS). Nevada Hydro has a long history of attempting to obtain cost recovery for the proposed \$2 billion pumped storage hydroelectric facility in southern California. FERC's most recent denial of Nevada Hydro's attempt indicated that LEAPS could potentially be treated as a transmission asset, but would need to be selected as a solution to an identified need through the ISO's regional transmission planning process. The ISO's position is that it properly studied all of LEAPS attributes and concluded that LEAPS was not needed as a potential reliability solution, nor as an economically-driven transmission project.

Non-Conforming Regulatory Agreements

 Transferred Frequency Response Agreement (ER19-2694, ER19-2693, ER19-2692, ER19-2686, ER19-2687, ER19-89, and ER19- 2690)

On August 28, 2019, the ISO submitted separate transfer frequency response agreements between the ISO and Powerex Corp., the City of Seattle, and Bonneville Power Administration. On August 27, 2019, the ISO submitted separate transfer frequency response agreements between the ISO and Tucson Electric Power Company, Tacoma Power, and Grant County Public Utility District No. 1. The agreements provide the terms and conditions under each entity will provide transferred frequency response to the ISO and the payment the ISO will make to each entity for such service. These services were procured through a competitive solicitation process for the 2019-2020 compliance year under NERC Reliability Standard BAL-003-1.1.

 Reliability Coordinator Service Agreement with Los Angeles Department of Water and Power (LADWP) (ER19-2288)

On August 21, 2019, FERC issued a letter order accepting the non-conforming reliability coordinator services agreement with LADWP for a finite term of service of 30 months. The agreement sets forth the scope of services and associated rate for the ISO to become the reliability coordinator of record for LADWP on July 1, 2019.

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• Energy Imbalance Market implementation agreement between the ISO and Turlock Irrigation District (ER19-2623)

On August, 16, 2019, the ISO submitted an energy imbalance market implementation agreement dated May 13, 2019, between the ISO and Turlock Irrigation District. The implementation agreement sets forth the terms under which the ISO will extend its existing real-time energy market systems to provide imbalance energy service to Turlock. Under the implementation agreement, Turlock will compensate the ISO for its share of the costs of system changes, software costs, and other configuration activities. The ISO requests that FERC agreement effective October 16, 2019, so that the extension of the real-time energy market to include Turlock may proceed towards implementation on April 1, 2021.

Non-Conforming Reliability Coordinator Service Agreement with Gridforce Energy Management, LLC (ER19-2537)

On August 6, 2019, the ISO submitted a non-conforming Reliability Coordinator Services Agreement between the ISO and Gridforce Energy Management, LLC. The agreement sets forth the scope of services and associated rate for the ISO to become the reliability coordinator of record for the generating facilities included in the Gridforce balancing authority area that is located within the ISO's reliability coordinator service area. The ISO requests that FERC accept the agreement effective October 7, 2019, so that the ISO can provide reliability coordinator services to Gridforce as of November 1, 2019.

Informational reports filed

Exceptional dispatch reports (ER08-1178 and EL08-88)

On July 15, July 16, July 30, August 15, August 30, 2019, the ISO submitted to FERC exceptional dispatch informational reports on: (1) the price impact of exceptional dispatches as ordered by FERC in its September 2, 2009, order; and (2) an analysis of the degree of mitigation as required by tariff section 34.11.4. These reports covered the months of March-June, 2019. An exceptional dispatch is a dispatch or a commitment issued by the ISO to a resource outside the operation of the ISO market to address operational needs that the ISO market cannot address.

Market disruption reports (ER06-615 and ER07-1257)

On July 15, and August 15, 2019, the ISO submitted to FERC its monthly market disruption reports for the periods of May 16 through June 15, 2019 and June 16 through July 15, 2019, respectively. A market disruption is an action or event that causes a failure of the ISO market related to system operation issues or system emergencies.

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 Negotiated default energy bids, major maintenance adders, custom operations and maintenance adders, and calculated opportunity costs (ER06-615)

On August 7, 2019, the ISO submitted to FERC an informational filing containing the rates or formulas used to calculate negotiated default energy bids, major maintenance adders, custom operations and maintenance adders, and calculated opportunity costs that the ISO implemented, modified, or terminated in the month of July, 2019.

 Western energy imbalance market transition period informational reports for new participating entities (ER15-2565)

FERC, in its October 29, 2015, order directed the ISO and its Department of Market Monitoring to file monthly informational reports on the transition period for new western energy imbalance market entities during its first six months of participation. During this six-month transition period, the ISO does not apply penalty factors, and instead calculates energy prices based on the last economic price signal. The ISO filed its informational reports for Balancing Authority of Northern California and Sacramento Municipal Utility District on June 1, 2019 and August 1, 2019, for the months of May 2019 and June 2019, respectively.

California Public Utilities Commission and other State Matters

• R.17-09-020 (Resource Adequacy OIR - 2019 - 2020 Compliance Years)

On July 18, 2019, the ISO filed comments on Assigned Commissioner's ruling seeking comment on clarification to resource adequacy import rules. The ISO shares the CPUC's concerns over speculative supply provided by resource adequacy imports, and recommends the CPUC clarify the resource adequacy rules to minimize risk of speculative supply from resource adequacy imports, require that resource adequacy import contracts demonstrate both firm energy and firm transmission into the ISO, and that the CPUC consider directing load-serving entities to negotiate energy price hedging mechanisms in resource adequacy import contracts.

On July 26, 2019, the ISO filed reply comments to reiterate its comments made on July 18, and also to note proposals submitted in the docket that are out of scope: changes to the maximum import capability, bidding rules and must-offer obligations, and capacity procurement mechanism modifications.

On August 9, 2019, the ISO provided informal comments on the July 26, 2019, 2020 multi-year implementation, and the resource adequacy templates and guides workshop. The ISO expressed its concern about the Energy Division allowing seller's choice contracts to meet a load serving entity's local capacity obligation and the potential double counting of resources this introduces. The ISO asked that Energy Staff require resource specificity in showings for all three years of the local resource adequacy requirement.

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• R.16-02-007 (OIR re Integrated Resource Planning Framework (SB 350))

On July 22, 2019, the ISO provided comments in response to the Assigned Commissioner and Administrative Law Judge's Ruling Initiating Procurement Track and Seeking Comment on Potential Reliability Issues, issued on June 9, 2019. The ISO noted that without action, there will be a system resource adequacy capacity shortfall in 2021. The ISO urged the CPUC to focus immediately on developing a comprehensive plan for addressing near-term reliability needs through 2022, including procurement of existing and new resources to be online as soon as possible, and, as a backstop, extending once-through cooling regulations for gas-fired resources that are needed to maintain near-term reliability. The ISO also asked the CPUC to address medium-term requirements that would enable the retirement of the Diablo Canyon power plant while maintaining reliability and addressing integration of renewable resources.

On August 12, 2019, the ISO provided reply comments that included both a resource adequacy-based analysis for the peak hour and operational analysis for hours 4 p.m. to 9 p.m. In resource adequacy-based analysis, the ISO identified a 500 MW system resource adequacy deficiency in 2020, 2,300 MW in 2021, and 2,200 MW in 2022. The resource adequacy-based counting method only considers needs in the peak hour and does not account for the hours right after the peak when the sun is down, solar production is gone, but the load remains high. The ISO supplemented this analysis with its own operational analysis focusing on the hours before and after the peak demand from 4 p.m. to 9 p.m. That analysis predicts a potential resource gap of up to 2,300 MW in summer 2020, growing to more than 4,400 MW in 2021 and to more than 4,700 MW in 2022.

The ISO's August 12, 2019 comments encourage (1) the extension of once-through cooling compliance dates for the Alamitos Generating Station as it provides both local and system reliability benefits, and any other once-through cooling units that will be needed for system reliability, and (2) the development of a procurement plan for 2020-2022 to meet reliability needs and facilitate the retirement of once-through cooling units receiving compliance date extensions.

 R.19-07-017 (Order Instituting Rulemaking to Consider Authorization of a Non-Bypassable Charge to Support California's Wildfire Fund)

On July 26, 2019, the CPUC issued an Order Instituting Rulemaking to consider whether the CPUC should require certain electrical corporations to collect from ratepayers a charge to support California's new Wildfire Fund.

• R.14-08-013/R.14-10-003 (Distribution Resource Plans & Demand-Side Resource Programs)

On August 23, 2019, the ISO provided reply comments regarding the July 19, 2019, Energy Division workshop. The ISO provided additional detail regarding its review of a backlog of previously approved transmission infrastructure upgrades in the Pacific Gas

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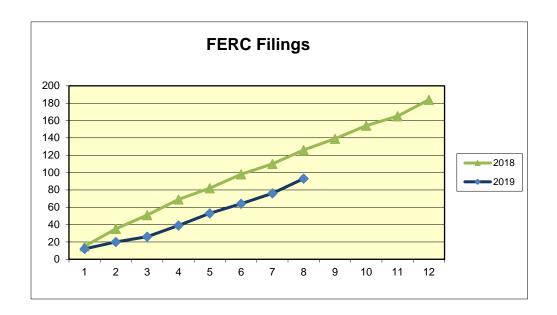
& Electric footprint in the annual transmission planning process, and a more nuanced discussion about the impacts of distributed energy resources and how the transmission planning process considers non-wires options.

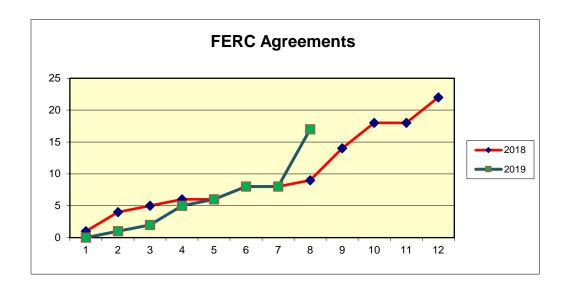
• A.17-01-012, etc. (Approval of 2018 - 2022 Demand Response Programs)

On August 30, 2019, the ISO provided reply comments in response to other party comments provided regarding the August 9, 2019 Demand Response Auction Mechanism DDRAM) Working Group Report. The ISO indicated its support for the CPUC considering a transparent process to understand demand response auction mechanism resource marginal costs and opportunity costs.

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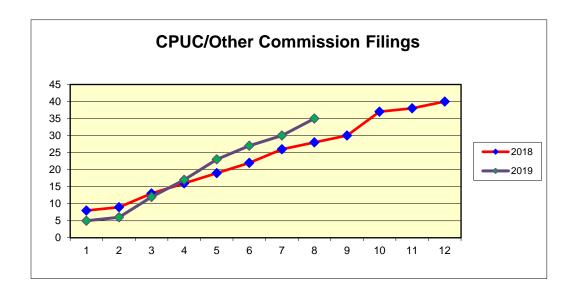
Regulatory Filings Through September 5, 2019

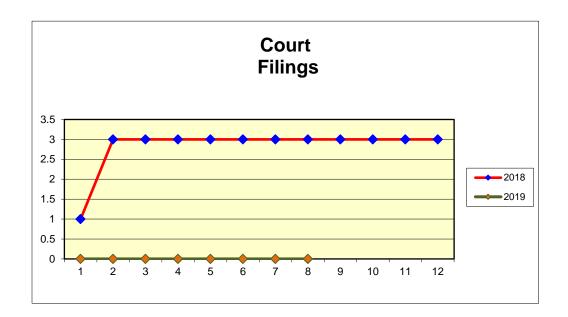




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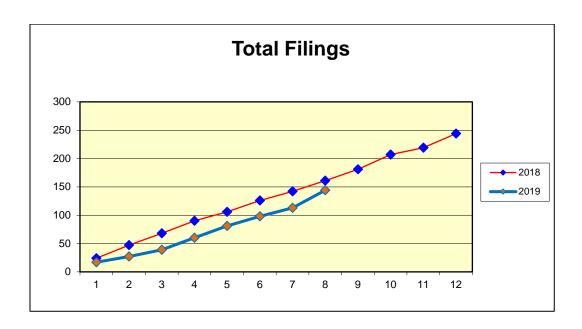
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