UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corp.	Docket No. ER20-1075-000

MOTION OF POWEREX CORP. TO INTERVENE AND COMMENTS

Pursuant to Rules 212 and 214 of the Federal Energy Regulatory Commission's ("Commission") Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 214 (2019), Powerex Corp. ("Powerex") hereby moves to intervene and submit comments concerning the California Independent System Operator Corp.'s ("CAISO") proposed revisions to the rules governing the compensation provided to resources procured through the capacity procurement mechanism ("CPM") that have submitted offers above the CPM soft offer cap.[1]

I.
CORRESPONDENCE AND COMMUNICATIONS

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[1] *Cal. Indep. Sys. Operator Corp.,* Tariff Amendment To Enhance The Capacity Procurement Mechanism, ER20-1075-000 (filed Feb. 25, 2020).

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Powerex requests that the foregoing persons be placed on the official service list for this proceeding and respectfully requests waiver of Rule 203(b)(3) of the Commission's regulations, 18 C.F.R. § 385.203(b)(3), in order to permit designation of more than two persons for service in this proceeding.

II.
MOTION TO INTERVENE

A. Interest Of Powerex

Powerex is a corporation organized under the *Business Corporations Act* of British Columbia, with its principal place of business at Vancouver, British Columbia, Canada. Powerex is the wholly owned power marketing subsidiary of the British Columbia Hydro and Power Authority ("BC Hydro"), a provincial Crown Corporation owned by the Government of British Columbia. Powerex sells power at wholesale in the United States, pursuant to market-based rate authority originally granted by the Commission on September 24, 1997.[2] Powerex sells

[2] *See British Columbia Power Exch. Corp.*, 80 FERC ¶ 61,343 (1997); *British Columbia Power Exch. Corp.*, Docket No. ER97-4024-012 (Sept. 12, 2000) (unpublished letter order); *Powerex Corp.*, Docket No. ER01-48-002 (Oct. 30, 2003) (unpublished letter order); *Powerex Corp.*, Docket No. ER01-48-007 (July 26, 2007) (unpublished letter order); *Powerex Corp.*, Docket No. ER01-48-018 (Oct. 29, 2010) (unpublished letter order); Powerex Corp., Docket Nos. ER10-3297-003, *et al*. (Aug. 29, 2014) (unpublished letter order); *Powerex Corp.,* Docket Nos. ER17-704-000, *et al*. (Jan. 25, 2018).

power from a portfolio of resources in the United States and Canada, including Canadian Entitlement resources made available under the Columbia River Treaty, BC Hydro system capability, and various other power resources acquired from other sellers within the United States and Canada.

Powerex is an active participant in the CAISO day-ahead and real-time markets, including the Energy Imbalance Market. Powerex has also previously sold up to 500 MW of reliable deliverable capacity to CAISO pursuant to the CPM.

B. Motion To Intervene

As an active participant in the CAISO day-ahead and real-time markets, and as a supplier of capacity to the CAISO under its CPM, Powerex has a direct, immediate, and substantial interest that cannot be adequately represented by any other party and will be directly affected by any Commission action in this proceeding. Powerex's intervention is in the public interest, and it therefore moves for leave to intervene in this proceeding.

III.
COMMENTS

Growing Resource Adequacy ("RA") challenges within the CAISO Balancing Authority Area ("CAISO BAA") are dramatically increasing the importance of ensuring that the CAISO has an effective backstop CPM to protect the reliably of its grid. The CAISO's existing CPM is ill-suited to this purpose, as its short procurement lead time, short contract duration, and excessively low soft offer cap renders the CAISO unable to compete to secure forward capacity commitments, particularly from external resources, to meet its system capacity needs. The proposed revisions to the rules governing the compensation available

to resources participating in the CPM process, if accepted, will only perpetuate the CAISO's growing inability to compete to acquire forward capacity from external resources at a time when the program is likely to be of increasing importance to the reliability of the CAISO grid.

Powerex emphasizes that it is strongly supportive of the CAISO's extensive efforts to provide transparency and increase awareness of the significant and growing reliability challenges facing the CAISO BAA due to a lack of sufficient forward commitments of real, deliverable physical supply under the current California RA program. Powerex has been highly aligned with many of CAISO's proposals to address these challenges, and continues to work in support of these necessary reforms. The CPM represents the critical backstop to protect reliability against the shortcomings in California's RA program; and since those shortcomings are large and unlikely to be addressed in the near term, it is vital that the CPM be effective. Powerex therefore urges the CAISO to instead work with stakeholders to enhance the CPM program in a manner that enables the CAISO to effectively compete for the procurement of external physical capacity, in the context of a rapidly tightening western grid.

A. An Effective CPM Is Essential Given The Deficiencies In California's RA Program, Which Leave The CAISO Short Of Thousands Of Megawatts Of Physical Capacity Needed To Reliably Operate The Grid

It is now broadly acknowledged that California's existing RA program includes the extensive use by California load-serving entities ("LSE") of import

"paper capacity" contracts.[3] Such contracts generally represent "naked commitments" by marketers that do not actually have the real physical capacity necessary to support their commitments. This has contributed to an increasing number of periods in which the real physical capacity available to the CAISO as a result of the RA program is thousands of megawatts ("MW") below actual system needs—even when individual California LSEs may have nominally met their RA requirements—undermining reliability and leading to day-ahead and real-time energy market price spikes, as CAISO operators are repeatedly forced to "scramble" to find real supply.[4]

Historically, the CAISO generally has been able to lean on short-term energy purchases from external physical suppliers to compensate for this gap between the real physical resources actually committed through the California RA program and actual system needs. However, tightening grid conditions throughout the western interconnection are making this an increasingly risky strategy, heightening the risk that the CAISO will experience a significant reliability event absent fundamental improvements to the California RA program. Unfortunately,

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[3] *See, e.g.,* Cal. Pub. Util. Comm'n, Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local and Flexible Procurement Obligations for the 2019 and 2020 Compliance Years, CAISO Comments, R.17-09-020 (July 19, 2019) (expressing concern regarding speculative supply provided by RA imports); *Cal. Indep. Sys. Operator Corp.,* Resource Adequacy Enhancements – Third Revised Straw Proposal at 51 (Dec. 20, 2019) (noting that the use of speculative import RA to meet RA requirements "could present a significant reliability problem").

[4] *See Cal. Indep. Sys. Operator Corp.*, CEO Report at 1 (September 16, 2019), *available at*: http://www.caiso.com/Documents/CEOReport-Sep2019.pdf; Audio Recording of Cal. Indep. Sys. Operator Corp., Board of Governors Meeting (Sept. 18, 2019), *available at*: http://www.caiso.com/Documents/AudioBoardGovernorsMeeting-Sep18-2019.mp3.

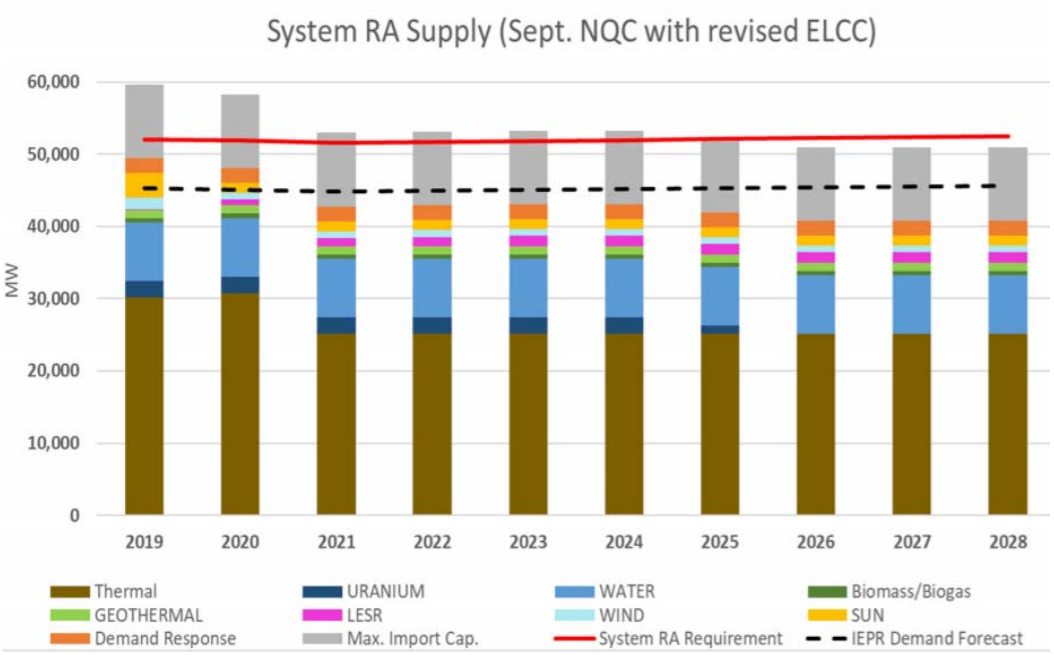
the near-term prospects for achieving these fundamental improvements appear increasingly dim, despite extensive efforts by the CAISO to both increase awareness of the growing challenges it faces due to gaps in California's current RA program and to propose workable, robust, and effective solutions. In particular, there is ongoing opposition by certain entities—including marketers and some California LSEs—to the specific proposals put forward both by the CAISO and other parties to simply require that all contracts under the California RA program represent the forward commitment of real, deliverable physical capacity.

The availability of external physical supply in the short-term energy markets is both declining and increasingly uncertain, and yet California's RA program appears unlikely to be effectively reformed—at least in the near term—to curb the CAISO BAA's historical reliance on such residual external supply. These two factors make it increasingly likely that the CAISO may have to utilize its CPM process to ensure that it has sufficient physical resources committed on a forward basis to meet its system capacity needs and maintain reliability.

B. The Current CPM Hamstrings The CAISO's Ability To Compete To Commit External Physical Capacity On A Forward Basis

The CPM is the primary RA backstop mechanism under the CAISO tariff, for both local and system capacity needs. Through the CPM, the CAISO is authorized to enter into forward capacity commitments with physical suppliers to meet the expected capacity needs of the CAISO grid, including system capacity needs arising from the growing deficiencies in California's RA program. Continued generation retirements in the CAISO BAA make it increasingly likely that successful CPM procurement will need to secure commitments of *external* physical

capacity, particularly for the summer season, as CAISO peak demand is now expected to greatly exceed the available capacity of internal generating resources. For instance, a recent California Public Utilities Commission ("CPUC") staff analysis concluded that, by 2021, the CAISO may require up to 8,800 MW of import RA to meet peak system demand, as shown in the chart excerpted below:[5]



But the CAISO will not be the only purchaser seeking to enter into forward commitments for the limited amount of surplus external capacity available in the western region. Tightening western grid conditions associated with the retirement of a growing portion of the fossil fueled generation fleet in the west have led numerous LSEs outside of California to increasingly seek to enter into forward

[5] Cal. Pub. Util. Comm'n, Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements, *Assigned Commissioner and Administrative Law Judge's Ruling Initiating Procurement Track and Comment on Potential Reliability Issues*, R.16-02-007 at 12 (June 20, 2019).

capacity contracts and/or forward firm energy contracts to meet their own capacity needs, particularly in the summer and winter seasons. As a result, the CAISO will increasingly be required to compete with external LSEs to obtain the capacity commitments necessary to backstop RA procurement.

The CPM is poorly suited to enabling the CAISO to compete with these other LSEs in the procurement of forward capacity commitments, however. As a past participant in the CPM process, and as an active participant in the bilateral market for forward capacity and forward firm energy, Powerex does not believe that suppliers of physical supply in the West will find it attractive to commit their surplus capacity under the CPM—given its short duration, below-market compensation, and short lead time—relative to other forward opportunities with different purchasers in the West.

1. CPM Designations Are Not Competitive With Other Opportunities Available To External Suppliers Of Physical Forward Capacity

To meet its intended objective as a "backstop" forward capacity procurement mechanism, the CPM needs to enable the CAISO to successfully compete for the forward commitment of surplus physical capacity located outside of the CAISO BAA. From the perspective of a supplier of forward capacity considering a range of available sales opportunities in the western markets, the CPM is comparatively unattractive for at least two key reasons:

First, under the CPM framework, the CAISO may seek to procure additional forward capacity for as short of a duration as just a single month. This stands in contrast to other LSEs seeking forward capacity and/or forward firm energy

products in the West, who may often seek to acquire these products for multiple months, an entire season, an entire year, or even multiple years.

Second, the CAISO generally limits compensation under the CPM framework (through a soft offer cap) to 1/12th of the annual going forward costs of a hypothetical thermal resource for each month procured. This is far below the competitive price for forward capacity commitments in a well-functioning, competitive, and non-discriminatory forward capacity market, whether bilateral or centralized, under current conditions in the west where the addition of new capacity resources are needed in the near term. Thus, in order for the CAISO to be able to compete to procure forward physical capacity from external suppliers, the CPM must be able to provide compensation up to at least the full, annualized cost-of-new-entry ("CONE")—and perhaps a reasonable multiple of this value, as often applies in bilateral and centralized capacity markets in other ISO/RTO regions.

In short, limiting compensation to as little as 1/12th of annualized going-forward costs, and for a contract as short as a single month, results in a CPM soft offer cap price below the efficient, competitive, non-discriminatory price levels for forward capacity that can be expected during conditions where additional capacity is needed and is likely to prevent the CAISO from successfully competing for external supply. The inadequacy of the compensation provided under the CPM is perhaps best highlighted by comparing it to the value used by Southwest Power Pool, Inc. ("SPP") as a price signal to ensure forward capacity commitment by LSEs in its market. Like the CAISO, SPP relies on a bilateral contracting framework to ensure that it has access to the resources necessary to reliably

operate its grid. However, rather than a backstop procurement mechanism, SPP ensures that LSEs comply with their RA contracting obligations by applying robust consequences to any LSE that fails to meet its obligations. Specifically, SPP will assess LSEs that fail to meet their summer resource adequacy requirements deficiency charges based on:

- The *annual* cost of capacity, rather than 1/12 of the annual cost;
- A capacity cost based on the *full* cost of new entry, rather than only the "going forward" costs included in the CAISO soft offer cap; and
- A penalty factor that ranges from 125% to 200% depending on the overall level of reserve margin within the market.[6]

The table below compares the value of 100 MW of physical capacity under the CAISO CPM soft offer cap and the framework used by SPP to address RA deficiencies:

	CAISO	SPP
Basis of Annualized Capacity Cost	Going forward fixed cost of hypothetical unit ($75.67/kW-year)	Full cost of new entry ($85.61/kW-year)
Fraction of Annualized Capacity Cost	1/12	Full year
Penalty factor	None	125% - 200%, depending on overall reserve margin
Value of 100 MW	100 MW * (1/12 * $75.67/kW-year) = **$631,000**	100 MW * $85.61/kW-year * [125% - 200%] = **$10.7 million - $17.1 million**

The unduly low level of the CPM soft offer cap creates an additional problem: it inadvertently makes it economically attractive for California LSEs to

[6] Sw. Power Pool, Inc., Open Access Transmission Tariff, Attachment AA, Section 14.

deliberately fail to meet their RA requirements. This is because a shortfall in the system RA procured by a California LSE exposes that LSE to financial costs that are limited to the sum of (1) an allocation of the CAISO's CPM procurement, which is generally limited by the soft offer cap of $6.31/kW-month; and (2) the CPUC's deficiency penalty of $6.66/kW-month. A California LSE may therefore be discouraged from incurring costs greater than approximately $13/kW-month to meet its system RA requirement. Under the tighter grid conditions that characterize the West currently and are likely to continue to do so in the future, however, bilateral market prices for forward commitments of capacity in peak summer months have now exceeded this level. The CPM soft offer cap may therefore be an impediment to both California LSEs and the CAISO from acquiring the forward supply commitments needed to support reliability.

2. CPM Designations Occur After Most Physical Capacity Has Already Been Committed, And After Operational Decisions Have Been Made

In addition to the issues set out above, the CAISO's ability to compete to obtain commitments of external supply will be limited by the fact that procurement under the CPM generally occurs only on a month-ahead basis. This makes the CAISO's procurement efforts significantly misaligned with the timeframes in which forward capacity and forward firm energy commitments are typically entered into elsewhere in the west. In Powerex's experience, LSEs outside of California are often seeking to secure forward capacity—whether through forward firm energy contracts or stand-alone forward capacity arrangements—on a season-ahead or year-ahead (or longer) basis. By the time the CAISO seeks to fill a CPM designation on a month-ahead basis, most of the capacity that may have once

been available may already have been committed to other purchasers in the west. The CPM process will simply come "too late."

In addition, the month-ahead procurement timeframe is poorly suited to the timeframe in which many entities make forward operational decisions that determine the amount of surplus capacity they can make available in a given month or period. These decisions include scheduling of planned maintenance outages (for winter-peaking utilities) and, of particular importance to the storage hydroelectric systems in the Northwest, management of reservoir levels at different facilities. In many cases, forward operational decisions can be taken to enable additional surplus capacity to be available to support a forward contractual commitment. But these operational decisions will generally not be taken unless a forward contractual commitment is actually in place. For this reason, forward contracting on a season-ahead or year-ahead basis can "unlock" additional physical capacity; but commitments with shorter lead times, including the CPM's month-ahead procurement timeframe, are more likely to be limited to whatever capacity will be available given the outage scheduling and reservoir management decisions that were already taken.

C. The CPM Should Be Enhanced To Enable The CAISO To Successfully Compete To Secure Forward Physical Capacity To Enable It To Reliability Operate The Grid

Rather than implementing a new requirement that will limit available compensation for a CPM designation, Powerex encourages the CAISO to work with stakeholders to adopt a modified CPM framework that will allow the CAISO to compete to obtain forward commitments of the internal and external capacity necessary to allow the CAISO to safely and reliably operate its system. In

particular, Powerex encourages the CAISO to work with stakeholders to strengthen the CPM framework by taking a number of steps:

- First, the CAISO should move towards a CPM framework that requires the CAISO to, at a minimum, procure capacity as a six month, seasonal product. This will allow CAISO to more effectively compete with LSEs in the west that are increasingly procuring capacity on a seasonal, annual, or multi-year basis.
- Second, the CAISO should work to modify the compensation structure associated with a CPM designation to ensure that resources are able to receive compensation up to at least the full annualized CONE, or a reasonable multiple of CONE, consistent with the approach used in other RTOs/ISOs.
- Third, the CAISO should shift both the RA program and the CPM process to year-ahead or multi-year ahead procurement, allowing CAISO to ensure that it has sufficient capacity available to meet system RA needs. Under this approach, CAISO could conduct the backstop procurement process shortly after the deadline for LSEs to make their year-ahead showing demonstrating that they have procured sufficient capacity to meet their full RA requirements. Shifting away from a month-ahead RA and CPM procurement process will maximize the supply options available to LSEs and the CAISO.

IV.
CONCLUSION

Wherefore, for the foregoing reasons, Powerex requests the Commission to grant this intervention and issue an order consistent with the comments above.

Respectfully submitted,

/s/ Deanna E. King

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On Behalf of Powerex Corp.

March 17, 2020

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, I hereby certify that I have this day served a copy of the foregoing on all persons designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 17th day of March, 2020.

/s/ Stephen J. Hug
Stephen J. Hug

Document Content(s)