

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Oversee the
Resource Adequacy Program, Consider
Program Refinements, and Establish Annual
Local and Flexible Procurement Obligations
for the 2016 and 2017 Compliance Years

Rulemaking 14-10-010
(Filed October 16, 2014)

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION COMMENTS
ON PRELIMINARY PHASE 3 PROPOSALS**

Roger E. Collanton
General Counsel
Anthony Ivancovich
Deputy General Counsel
Anna A. McKenna
Assistant General Counsel
Jordan Pinjuv
Senior Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom California 95630
Tel.: (916) 351-4429
jpinjuv@caiso.com

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I. Introduction

Pursuant to the September 13, 2016 Assigned Commissioner Scoping Memorandum and Ruling (Scoping Memo) and September 15, 2016 E-Mail Ruling Correcting Schedule, the California Independent System Operator Corporation (CAISO) provides comments regarding preliminary Phase 3 resource adequacy (RA) proposals submitted on December 16, 2016.¹

II. Discussion

A. Effective Load Carrying Capacity (ELCC) Proposals

Both Energy Division Staff and Calpine submitted proposals regarding the determination of the ELCC values for wind and solar resources. The CAISO has identified three distinct issues that should be addressed before adopting either ELCC methodology. First, neither the Energy Division proposal nor the Calpine proposal address the capacity gap identified by SCE, which is a shortage between RA resources and the load and reserve needs those resources were meant to serve.² As such, the CAISO continues to support SCE's proposal to validate the ELCC values against SCE's Net Load Peak Based ELCC prior to implementation. SCE's proposed Net Load Peak Based ELCC test is necessary to ensure that the values produced through the modeling

¹ These comments respond to preliminary proposals from the Commission's Energy Division Staff; the California Energy Storage Alliance (CESA); Calpine Corporation; the Independent Energy Producers Association (IEP); Pacific Gas & Electric Company (PG&E); San Diego Gas & Electric Company (SDG&E); SolarCity Corporation (SolarCity); Southern California Edison Company (SCE); and Comverge, Inc.; CPOWER; EnerNoc, Inc.; and EnergyHub (Joint DR Parties).

² SCE Proposals, p. 2.

exercise mirror the capacity benefit of the resources that are actually reflected in RA showings. Second, the ELCC values of wind and solar resources are a function of all resources used in the study process. Neither Energy Division Staff nor Calpine demonstrated the sensitivity of ELCC values to resource availability and/or portfolio mix. This sensitivity must be addressed prior to implementation because it will provide further support that the ELCCs accurately reflect resources' contribution to system reliability. Lastly, the Commission must address how the ELCC values will affect local RA values. The CAISO believes that the local RA values should be consistent with the system values to minimize complexity of RA showings while still providing the CAISO with the information needed to conduct all local RA showing validations. Based on these outstanding issues, the CAISO requests Energy Division conduct a workshop to compare the Energy Division and Calpine ELCC methodologies and address the issues discussed above.

B. Flexible Resource Adequacy Proposals

Several parties recommended specific modifications to the existing flexible RA program, but the CAISO generally agrees with PG&E that there is insufficient time to implement significant changes to the flexible RA program in this cycle. Most of the specific proposals involve modifications to the CAISO tariff and/or analysis that the CAISO will undertake in the Flexible Resource Adequacy Capacity – Must Offer Obligation (FRACMOO2) stakeholder process. As such, the CAISO asserts the following proposals are beyond the scope of the current RA proceeding:

- Modifying the number of daily starts required during summer months (PG&E);
- Reviewing the correct metric to (1) determine flexible capacity requirements (PG&E) and (2) the length/duration of the resource availability and counting rules (PG&E, CESA);
- Reviewing the appropriate must-offer obligation (SCE); and
- Developing the analysis to assess the how well flexible RA showings meet the CAISO's operational needs (SCE).

Several parties also propose to unbundle net qualifying capacity (NQC) from effective flexible capacity (EFC). The CAISO continues to support the concept that a resource need not have an NQC to obtain an EFC. However, as indicated in the CAISO's June 29, 2016 comments in this proceeding, implementation challenges must be addressed prior to determining the process to derive an EFC independent of an NQC. The current basis for requiring a resource to

have an NQC is that the Qualifying Capacity of the resource is deliverable at system peak conditions with all lines and resources assumed in-service. Absent an NQC for the resource, the CAISO must develop a separate type of deliverability study to determine if a resource is deliverable for flexibility capacity purposes. This study and the methodology must be in place prior to any unbundling to ensure that flexible capacity resources are available and deliverable when and where needed. The CAISO has committed to developing a flexible capacity deliverability study methodology and process for EFC, but until this process is in place, full unbundling cannot be implemented. Developing a new deliverability methodology for EFC will require a complete CAISO stakeholder process, and the associated investment in time and resources from both the CAISO and stakeholders.

C. Two-Hour RA Resources

Several parties request that the Commission establish a new category of two-hour duration RA resources. The CAISO believes that this RA proceeding is the appropriate forum to discuss and evaluate the benefits of a two-hour RA capacity product. The discussion should focus on whether and how two-hour duration resources enhance the reliability of the system while meeting the objectives of the resource adequacy program. Based on this focus, the CAISO believes that some of the arguments in support of the two-hour duration product do not appropriately consider the intent of the RA program.

i. SCE's Data does not Support Adopting a Two-Hour RA Product.

SCE's two-hour product proposal focuses exclusively on the net load shapes as opposed to gross load. SCE notes that "net load shapes tend to have shorter duration peak needs"³ and concludes that these shorter duration net load peaks justify shorter duration RA resources. However, the objective of system RA is to ensure sufficient capacity is available at the system gross peak demand, not at the net load peak. For instance, the Commission's rules count wind and solar resources toward system RA needs based on the contribution of these resources at the gross peak demand, not at the net load peak. In other words, the focus of the RA program is to plan to have sufficient capacity available to meet gross peak demand, not to simply meet the net load peak. Focusing on net load peaks to justify a two-hour RA resource would result in disparate treatment of resources, setting up a construct where some resources are evaluated based

³ SCE's Preliminary Phase 3 Proposals (SCE Proposals), p. 6.

on gross peak demand while others are evaluated on the net load peak will not ensure there is sufficient reliable capacity to meet gross load peak.

Analyzing the net load data provided by SCE, it appears that the value of two-hour resources may be limited. SCE's data demonstrates that during the summer season (May-September), the highest net loads most frequently occur between hours 17-20.⁴ In other words, net load peaks during the RA summer months can occur across four distinct hours, and in a specific month, the highest net loads can occur over six different hourly intervals.⁵ Even focusing on the net load curve, SCE's data demonstrate that the current four consecutive hour energy availability requirement for RA resources is reasonable and justified.

Implementing the two-hour RA product also presents operational and forecasting challenges, which include the need for more precise load forecasting and dispatch requirements. Establishing a two-hour product will require the CAISO operators to precisely predict two peak hours to avoid expending resources. Thus, operations and forecasting concerns must be addressed prior to implementing a two-hour product.

In other forums, the Commission has previously expressed its desire to expand the availability window for existing products. For instance, in D.14-05-025, the Commission agreed with PG&E's request to expand its demand bidding program (DBP) dispatch window from two to four hours. The Commission noted that the

DBP is a voluntary program and expanding the dispatch window, expands the opportunities to participate with no negative customer outcomes. We conclude that the request to expand the DBP dispatch window is reasonable and we approve it with the requirement that PG&E amend its DBP tariff language to increase the minimum event window from two hours to four hours in order to comply with current Resource Adequacy standards.⁶ (internal citations omitted).

ii. Any Two-Hour RA Product Should be Limited in Scope to Enhance Reliability and Target the Expansion of New Resources.

As recognized in SCE's Proposal, any new two-hour product should be targeted to "better enable some new technologies to provide reliability to the grid while limiting the quantity to ensure there is not an over reliance on such resources."⁷ Limiting the scope of the new product

⁴ SCE Proposals, p. 8, Figure 3. Net peak loads occur most frequently in hour 20 in May and hour 17 in August.

⁵ Id. See May and June 2017, in which the two highest daily net peak load hours can occur in hours 16-21.

⁶ D.14-05-025, DECISION APPROVING DEMAND RESPONSE PROGRAM IMPROVEMENTS AND 2015-2016 BRIDGE FUNDING BUDGET, May 15, 2014, at p. 29.

⁷ SCE Proposals, p. 6.

would be consistent with past Commission practice. For example, in D.04-10-035, the Commission specifically contemplated that a limited set of demand response RA resources might not sustain output for four hours, but that such products should be accommodated in the RA program. The Commission recognized that this product was designed as “an encouragement to demand response resources that are flexible.”⁸ This product was specifically limited to investor-owned utility demand response programs. As these programs evolved, the Commission’s expectations have also evolved, and the reasons for creating such a product have been reevaluated. Similar to that circumstance, if the Commission were to adopt a two-hour product it should do so with the expectation that targeted resources (such as energy storage and demand response) should continue to evolve over time to provide additional availability and operational flexibility to the system.

The CAISO agrees with the effort to attract new technologies to provide reliability to the grid, and this objective should preserve or improve the quality of the existing RA product and maintain and enhance reliability. The CAISO supports the Commission and the parties considering a shorter duration RA product, but it is critical that the Commission assess and identify the tangible reliability benefits these resources provide to the system. Further, the Commission should clearly indicate that any such option would be to expand opportunities for new resources, not simply to allow existing or procured resources to simply increase their capacity value without adding value to the system. In the present case the Commission should prevent existing four-hour storage or demand response programs from simply doubling their RA capacity under a two-hour RA product, with no new technologies or applications actually developed because that would not add operational or reliability benefits to the system.⁹

D. Demand Response Related Proposals

i. SCE’s Proposal to Exempt Demand Response Resources from “Double Penalties”

SCE claims that demand response resources that are subject to the Commission’s Load Impact Protocol (LIP) are double penalized for underperformance because they are subject to penalties pursuant to the CAISO’s Resource Adequacy Availability Incentive Mechanism (RAAIM) and future capacity reductions pursuant to the LIP. SCE states that “[t]he RAAIM is a

⁸ D.04-10-035, p. 27.

⁹ For example, in 2017, a LSE could purchase 1 MW for 4 hours for 4 MWh of energy discharge. This same LSE in 2018 would have to purchase 2 MW of RA capacity to get the same 4 MWh of energy discharge

financial penalty that reflects the *severity of the underperformance*” and that “the LIP process will reduce the future capacity value of the [demand response] resource since it uses historical performance.”¹⁰ (emphasis added)

RAAIM is an availability metric that evaluates whether a resource adequacy resource bids into the CAISO market pursuant its must offer obligation during the availability assessment hours. RAAIM does not evaluate whether or not the resource actually performs and delivers energy consistent with its bid. The CAISO explained the RAAIM’s function in its FERC tariff amendment to implement Phase 1A of its Reliability Services Initiative as follows:

The RAAIM will assess whether scheduling coordinators are offering local, system, and flexible resource adequacy resources into the CAISO market consistent with their must-offer obligations. The RAAIM will then compare how each resource adequacy resource was required to bid into the energy market under its resource adequacy obligation with how the resource actually bid into the energy market, and assess a non-availability charge or make an availability incentive payment to the resource adequacy resource based on that comparison.¹¹

The RAAIM incentivizes resources in the current RA compliance year to bid their qualifying capacity in the CAISO market consistent with their must offer obligations.

ii. SCE’s Argument that Demand Response Resources Need Not be Integrated into the CAISO Market to Receive RA Value.

SCE argues that Commission need not require all demand response to be integrated into the CAISO market to receive RA value. Such a step would be regressive and contrary to the Commission’s well-reasoned bifurcation policy. It is settled Commission policy that by 2018 to receive RA value demand response resources must either be (1) event-based demand response integrated into the CAISO market or (2) non-event based load modifying demand response embedded in the California Energy Commission’s unmanaged/base case load forecast. The Commission has reaffirmed this policy on several occasions. For example, in D.15-11-042, the Commission affirmatively stated:

IT IS ORDERED that:

1. Effective January 1, 2018 Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall only attribute

¹⁰ Id., p. 10.

¹¹ Tariff Amendment to Implement Phase 1A of Reliability Services Initiative, Docket ER15-1825, May 29, 2015, at p. 4.

capacity value to demand response programs that are integrated into the California Independent System Operators wholesale market or embedded in the California Energy Commission's unmanaged/base case load forecast.¹²

In making this conclusion, D.15-11-042 affirmed the spirit of the Commission's previous demand response bifurcation decision¹³ by clearly distinguishing (1) event-based demand response as a supply resource, and (2) non-event based demand response as a load modifying resource. D.15-11-042 again rejected creating a dispatchable or "event-based" load-modifying demand response because it would inappropriately create a distinct third category of demand response, often referred to as "trifurcation."

These decisions regarding the resource adequacy treatment of demand response were appropriately made in the demand response proceeding (Rulemaking 13-09-011), where there was a well-vetted and concerted effort to establish a detailed and thorough record on these long-debated issues. Despite this well-reasoned and thoroughly debated precedent, SCE seeks to have the previously resolved issue of trifurcation addressed yet again in this proceeding. SCE requests that the Commission reconsider the requirement to integrate all demand response resources because SCE claims that these "[demand response] resources can still provide RA to the system without being integrated. Even for [demand response] resources that were designed to be integrated into the market, some such resources can provide RA services more efficiently as load modifiers."¹⁴

The Commission acknowledged the point SCE repeats here, *i.e.*, that SCE operates legacy programs with program designs that did not contemplate wholesale market integration. SCE states "[t]he core issue here is that the current DR programs were generally not designed with the CAISO market participation as an objective."¹⁵ However, the Commission has remained steadfast in its policy to integrate demand response. For example, in D.15-11-042 the Commission explicitly acknowledged "the technical complexities of demand response integration into the CAISO market" but reaffirmed that "the Commission must remain vigilant in

¹² D.15-11-042, p.70.

¹³ D.14-03-026, p. 28. ("The bifurcation of current demand response programs into load modifying resource and supply resource is adopted.")

¹⁴ SCE Proposals, p. 12

¹⁵ *Id.*, p. 11.

moving forward in a reasonable pace but without unnecessary delay.”¹⁶ The Commission further emphasized that delaying integration is not acceptable, noting as follows:

“ . . . the Commission intends to integrate demand response resources into the CAISO market. Tactics to delay this process are not acceptable. The Commission has taken a deliberative approach to demand response integration since 2008. It is now time to move ahead.”¹⁷

The CAISO agrees and urges the Commission to reject reconsidering this issue that has been thoroughly and satisfactorily addressed and resolved. Given the Commission’s clear policy to integrate demand response into the CAISO market and SCE’s own success at integrating its demand response programs,¹⁸ the CAISO is surprised that SCE is seeking reconsideration of the integration of certain supply demand response programs in the CAISO market.

As a basis for its argument, SCE incorrectly characterizes certain representations by the CAISO in its Regional Expansion initiative. SCE asserts that “the CAISO has recently stated in its Regional Expansion initiative that it is comfortable with having load modifying [demand response] resources subject to Local Regulatory Authority (“LRA”) rules,” and that “[g]iven the CAISO’s position, SCE believes the Commission should reconsider the requirement to integrate all [demand response] resources.”¹⁹ According deference to individual LRAs, including this Commission, on important matters such as demand response integration, is not a basis to reverse the Commission’s substantive demand response policies that have been intensely litigated, vetted and reaffirmed.

If a broader regional market emerges, other state commissions can consider reforming, transitioning, and integrating their demand response programs into the CAISO market when and where appropriate. The Commission has set a progressive example in this area, which the CAISO did not impose, but which can serve as a model for future potential participants. The transition to integrating supply demand response into the CAISO market has taken years of debate, record building, decision making, and systems development. It would be inappropriate for the CAISO to impose demand response integration on other jurisdictions without similar

¹⁶ D.15-11-042 at p. 5.

¹⁷ Id., p. 22.

¹⁸ For instance, D.15-11-042 at p. 4 states “[i]n 2013, the Commission initiated R.13-09-011 to enhance the role of demand response in meeting the state’s resource planning needs and operational requirements. In the order initiating this proceeding, the Commission stated its intention to prioritize demand response as a resource competitively bid into the CAISO wholesale electricity market.

¹⁹ SCE Proposals, p. 12.

debate, record building, regulatory review and systems development. The CAISO hopes such integration efforts and processes would be abbreviated given California's experience and lessons learned could be transferred to other areas and entities.

iii. Partial Fast-Response Demand Response to Meet Local Resource Adequacy

SCE requests "that the Commission create a process whereby scheduling coordinators for DR resources will get Local RA credit based on the expected performance within [a 20 minute] timeframe, even if the contractual response time is greater than 20 minutes."²⁰ SCE's bases this request on its purported finding that certain percentage of demand response resources reliably provide energy reductions within 20 minutes despite the fact they are not contractually obligated to do so. The CAISO believes SCE's recommendation can be investigated further, but, as SCE notes in its proposal, implementing this recommendation would require close coordination between the CAISO and the Commission. As the CAISO stated in previous comments in this proceeding, SCE should bring this proposal to the CAISO for further review and study, including providing actual resource configurations and attributes the CAISO could review and study to ensure SCE's understanding of how demand response resources would be dispatched conforms with market rules and the technical capabilities of the CAISO's market and real-time operations systems. SCE's concept requires additional detail to confirm that that the CAISO can adequately model it and determine the actual extent to which it can rely on such resources to meet system needs.

The CAISO continues to be concerned that SCE's proposal raises significant issues for the Commission's resource adequacy program and how the CAISO would study and dispatch the resource, and how replacement capacity would be effectuated. For example, if a partial fast-response resource went on a forced outage or partial outage, it is unclear how replacement of such capacity would occur because the resource would have both local and system capacity (*i.e.*, if the unit had a partial forced outage, what proportion of the resource would need to be replaced with local capacity and which portion could be replaced with system capacity?). Resolving these types of issues is necessary before this concept can proceed further.

SCE's proposal also appears to rely on the premise that there is a high statistical probability that a portion of a demand response resource will be available within 20 minutes after

²⁰ SCE Proposals, p. 13.

a contingency event, even though it may not be contractually obligated to be available. This statistical approach raises additional issues that require further investigation. First, as SCE previously noted, additional analysis is needed that takes into account more than a single day's dispatch results.²¹ Indeed, if such resources are to be counted in the Local Capacity Technical Study, the CAISO must be confident that such resources will actually materialize in real-time to avoid any violations. Developing an approach that provides adequate certainty is not within the scope of this proceeding and requires further extensive analysis and consideration.

To the extent possible, the CAISO recommends that SCE explore resolving this issue by dividing its resources into fast responding resources and slow responding resources. Separating the resources would not raise the policy and technical complexities described above. At this time, SCE has not provided the technical reasons why its demand response portfolio could not have both fast responding and slow responding resources to sufficiently resolve this concern.

E. Miscellaneous Proposals

i. Multi-Year RA Reporting

The CAISO supports the multiyear reporting obligation proposed by IEP. A reporting obligation should include both estimates of future load serving entity RA needs (including a breakdown of system, local, and flexible capacity procurement) and any procured capacity amounts towards meeting those future RA needs. Although this would not provide the necessary financial security required to fully eliminate the risk of premature retirement of some resources, this reporting requirement would provide the market with information to aid in retirement and/or major maintenance decisions.

ii. Removing Path 26 Counting Constraint

PG&E requests that the Commission remove the Path 26 counting constraint from the RA program. In support of this proposal, PG&E erroneously claims that the CAISO determined that zonal capacity requirements will not be needed between PacifiCorp and the current CAISO footprint under the CAISO's Regional RA initiative. Based on this, PG&E concludes that the Path 26 counting constraint is no longer necessary. The CAISO disagrees with PG&E's

²¹ SCE's Revised Track 1 Proposals, p. A-3 ("to find the actual amount of 20-minute response that can be reliably provided: ... [a]nalysis will need to be based on more than a single day's dispatch results").

recommendation and believes that the Path 26 counting constraint remains relevant and necessary.

PG&E mischaracterizes the CAISO's position in the Regional RA initiative. The CAISO did not state that Path 26 is no longer needed. Instead, the CAISO merely explored with regional stakeholders whether additional zonal RA requirements would be necessary to respect and enforce some additional zonal RA constraints or requirements in the context of an expanded CAISO balancing area. The CAISO ultimately decided to forego further exploration of any additional zonal requirements under the Regional RA initiative proposal at this time due to the additional complexity that would result due to complications in load serving entity showings and resource substitution requirements and tracking. The CAISO's actions did not mean that the Path 26 constraint should be removed from the current RA program and should not be misconstrued as such.

The CAISO also disagrees with PG&E's assertions that the 2008 Market Redesign and Technology Upgrade (MRTU), which resulted in an energy market with locational nodal prices, is further justification for removing the Path 26 counting constraint. Specifically, the CAISO disagrees with PG&E's assertion that the congestion pricing and additional compensation for resources located behind transmission constraints associated with MRTU provide an adequate incentive for the necessary procurement of RA resources in each area.

Maintaining the Path 26 counting constraint is a prudent practice because the potential still exists for parties to over or under procure RA resources in either the northern or southern areas. This potential for skewed zonal RA procurement causes reliability concerns due to the known Path 26 constraint which limits the flows between the two areas.

For example, the 2017 Local Capacity Technical Analysis report²² shows the minimum 2017 zonal resource needs to be 20,179 MW for south of Path 26 (SP26) and 16,666 MW for north of Path 26 (NP26), respectively. The 2017 NQC list²³ shows approximately 27,000 MW for SP26 and 28,000 MW for NP26. An uninformed and unrestricted zonal procurement could exacerbate the Path 26 constraint potentially resulting in grid reliability problems and requiring increased reliance on the CAISO's backstop capacity procurement mechanism (if resources exist). In the next few years, the Path 26 constraint could become even more constrained due to

²² <http://www.caiso.com/Documents/Final2017LocalCapacityTechnicalReportApril292016.pdf>, p. 25.

²³ http://www.caiso.com/Documents/NetQualifyingCapacityReport_CombplianceYear2017.xlsx, sort by Path 26

uneven retirement scenarios for once-through-cooled (OTC) generation and other non-OTC resources and the building of new resources.

For these reasons, the CAISO believes the Commission should continue to enforce the Path 26 counting constraint.

iii. Elimination of Maximum Cumulative Capacity (MCC) Buckets

The CAISO conditionally supports Energy Division Staff's proposal to eliminate the MCC buckets, provided that a reasonable and effective alternative to maintain the integrity of the RA portfolio is put in its place prior to its elimination. Energy Division's analysis concludes that the bucket constraints are not binding and therefore, are not needed. However, it does not necessarily follow that because the MCC buckets are not binding, they are not helping to ensure the RA portfolio is well-structured to maintain grid reliability. If a viable alternative is put in place to ensure that the RA portfolio has the right attributes and availability to maintain reliability, the CAISO would then support eliminating the MCC buckets. However, until that time the existing MCC bucket structure should be retained until a reasonable alternative is in place that ensures the integrity and capability of the RA portfolio.

iv. Defining the term "Dispatchable"

The CAISO agrees that the term "dispatchable" is not clearly and definitively defined, thereby creating confusion for stakeholders and market participants. However, as PG&E notes, this confusion exists because the Commission and CAISO use the term "dispatchable" differently. To resolve this confusion, the CAISO may need to consider tariff modifications. Therefore, the CAISO proposes a joint Commission-CAISO workshop to discuss the various uses and meaning of the term "dispatchable," and to establish alternative terms to convey specific meanings, as necessary.

v. EFC and NQC List Publication Timing

The CAISO fully understands parties' interest in establishing firm deadlines for the issuance of Qualifying Capacity values. The CAISO continues to work collaboratively with the Commission and generates NQC and EFC lists within approximately two weeks once it receives the qualifying capacity list from the Commission. Therefore, the CAISO recommends the Commission provide the Qualifying Capacity list to the CAISO by June 1 instead of attempting to establish new rules in this proceeding.

vi. Establishing Seasonal Local RA Requirements

PG&E proposed that local RA requirements should be set on a seasonal, rather than annual basis. The CAISO notes that seasonal local RA requirements would present serious implementation challenges, and implementing these changes could radically affect the local RA process and result in minimal benefits or even counterproductive consequences. A seasonal local capacity requirement study would likely not provide cost savings because resources must still their recover fixed costs regardless of the length of the local capacity contract. By establishing an annual RA requirement, the system benefits by having the resource available for the entire year rather than just a season. For example, under an annual contract, the resource will be available as replacement or substitute capacity in months where it is not reflected in an RA plan. If a resource is only contracted for a season, it must still recover its fixed costs, but it will seek to recover those costs over the course of a season instead of the entire year. As a result, overall costs will not decrease, but the length of the resource’s commitment obligation will. It could result in the CAISO relying on its backstop capacity procurement mechanism to a greater degree.

Currently, the CAISO performs local capacity requirement studies during peak conditions. As a result, the CAISO is able to reasonably assume that all lines and resources are “in-services” during peak load conditions. This is a critical assumption to ensure a reasonable and reproducible planning study. If the CAISO begins performing local capacity requirement studies on a seasonal basis, it cannot reasonably assume that all lines and resources are in service. Rather, the CAISO would have to make assumptions about the topology of the grid, which resources and lines are in service or on outage and at what available transfer capability, well in advance of knowing what lines and resources will actually be in service. Actual conditions could render the assumptions incorrect, potentially resulting in shortages of local capacity and increased reliance on CPM. This serious risk to reliability does not exist today.

Respectfully submitted,

By: /s/ Jordan Pinjuv

Roger E. Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Anna A. McKenna

Assistant General Counsel

Jordan Pinjuv

Senior Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom California 95630
Tel.: (916) 351-4429
jpjuv@caiso.com

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