

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 2019 and 2020 Compliance Years.

Rulemaking 17-09-020

COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) ON THE TRACK 3 PROPOSALS AND MARCH 12-13, 2019 WORKSHOP

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Per the Assigned Commissioner's Amended Scoping Memo and Ruling issued on January 29, 2019 ("Scoping Memo"), Southern California Edison Company ("SCE") respectfully submits its comments on the Track 3 proposals and the March 12-13, 2019 workshop to discuss the Track 3 proposals.

I.

COMMENTS ON WAIVER PROCESS, PATH 26 CONSTRAINT REMOVAL, SHORT-DURATION FLEX RESOURCE ADEQUACY AND LOCAL RESOURCE ADEQUACY ALLOCATION

A. Waiver Process

There are several proposals related to the resource adequacy ("RA") waiver process. In addition to SCE's proposal to extend the Local RA waiver process to System RA and Flex RA, these proposals include increasing the trigger price for Local RA (Energy Division proposal) and the development of an equivalent trigger price for partial year offers (San Diego Gas & Electric Company proposal). The waiver process is an integral part of the RA program and provides load-serving entities ("LSEs") with a mechanism to protect customers from market

power. With the forecasted tightening supply condition,¹ the potential exercise of market power in System and Flexible RA resources increases. Given the strong linkage among RA products, in particular, between Local RA and System RA, market power issues affecting one product could impact the rest of the RA products. A waiver for Local RA alone, if there is market power for System RA resources, will be insufficient to prevent the exploitation of market power. While LSEs can point to trigger prices for a Local RA waiver, there is no mechanism, let alone a trigger, for System RA. Thus, LSEs would be protected from a non-competitive price for the Local RA attribute of the resource, but would be subjected to a penalty for the very same resource with respect to System RA requirements in a situation in which the resource is pivotal. Since all Local RA resources are System RA resources, they play a critical role in meeting the Local and System attributes of a LSE's RA requirement. The previous efforts of the California Public Utilities Commission ("Commission") to address the potential for Local RA market power should expand to a System RA level in recognition that resource planning is evolving to a situation in which excess capacity is not being planned for, and therefore System RA resources may be pivotal to meet RA requirements in peak demand months.

To address market power as a whole, a consistent structure should be established among all RA products. Further, considering the relationship between RA and California Independent System Operator ("CAISO") backstop procurement, SCE continues to propose that the existing waiver process be extended to System and Flexible RA, and the trigger price for System and Flexible RA be set at the soft-offer cap for the CAISO Capacity Procurement Mechanism ("CPM").²

Track 2 Energy Division Staff Proposals: Multi-Year RA Requirements at 4-7; Current Trends in California's Resource Adequacy Program Energy Division Working Draft Staff Proposal, Energy Division Staff, dated February 16, 2018, at 29-30.

² See SCE Track 3 Proposals at 15-17.

B. Path 26 Constraint Removal

SCE applauds the Energy Division staff's efforts in reviewing how Path 26 Allocations were actually used for 2017 to 2019 RA showings and analyzing the potential of Path 26 constraint violation under multiple scenarios, including extreme scenarios.³ As shown in the analysis, there was a significant amount of unused Path 26 Allocation for 2017 and 2018, both Year-Ahead and Month-Ahead, and 2019 Year-Ahead. The analysis also shows that a physical violation of Path 26 would occur only under the unlikely interaction of extreme scenarios. The Energy Division staff's proposal to eliminate the Path 26 constraint for RA is consistent with these findings. SCE further reiterates that the Path 26 constraint as applied today can limit the resources LSEs may procure for System RA requirements, and unnecessarily create or exacerbate System RA supply constraints. However, as Energy Division has shown, the constraint on eligible resources to meet System RA requirements is due to the ineffective manner in which the Path 26 counting rights are allocated. This then causes a potential inefficient need to perform complex swap transactions to meet an individual LSE's allocation of Path 26 counting rights even though the total amount of Path 26 counting rights used by all entities may not be expended. This can result in an LSE's inability to fulfill its System RA obligations. In situations where this is due to complex transacting methodologies or a constraint that binds for a single LSE, but not for Path 26 as a whole, the result is inappropriate. Therefore, SCE fully supports the Energy Division's proposal to eliminate the Path 26 constraint, and to continue reviewing the potential for procurement activity in each year to violate Path 26 constraint.

During the workshop, the CAISO staff indicated that removing the Path 26 constraint as proposed by Energy Division is not a significant concern. The CAISO acknowledged that under the extreme scenarios depicted by the Energy Division in which the Path 26 constraint for all LSE showings did bind, that CAISO may need to execute backstop procurement to relieve the

Energy Division Track 3 Proposals.

constraint. Given the low likelihood of such an event, the Energy Division proposal is acceptable. SCE supports the Energy Division's proposal and recommends the Commission eliminate the Path 26 Constraint in Track 3.

C. Short-Duration Flex RA Product

The California Energy Storage Alliance ("CESA") and Wellhead Electric Company, Inc. ("Wellhead") proposals to create a new short-duration Flexible RA product (*i.e.*, Fast Flex RA product),⁴ have not been fully articulated, nor fully discussed by stakeholders, including the CAISO. For example, it is unclear whether there is an underlying issue that the proposal is trying to solve, or whether the perceived issue is driven by resource dispatch/commitment deviation within an hour, which is separate from resources' ramping capability. SCE notes that under the RA Enhancements Initiative, the CAISO and stakeholders are evaluating potential comprehensive changes to the RA program considering various needs including operational needs. As such, SCE recommends the Commission take up the issue of proposed short-duration Fast Flex RA product if necessary, *after* the CAISO RA Enhancements Initiative concludes.

D. Local RA Allocation

SCE strongly opposes the California Community Choice Association's ("CalCCA") proposal to modify the allocation of Local RA requirements to reflect each LSE's actual month-to-month load forecasts. This proposal is misplaced and fails to recognize that the allocation of Local RA requirements has to go hand-in-hand with how the requirements are set.

The methodology of determining Local RA requirements based on peak load condition applies to all LSEs. In other words, the requirements are set to reflect the most stringent grid condition,

⁴ CESA proposal to "re-define EFC based on sub-hourly, e.g. 15-minute trough-to-peak, ramp-ability." CESA Track 3 Proposals at 6. Wellhead proposal to "institute a new form of capacity procurement to be called Fast Flex RA." Wellhead Track 3 Proposals at 4.

⁵ CalCCA Track 3 Proposals at 2-3.

i.e., at system peak load, regardless of the actual load ratio among LSEs in other months. As long as all customers benefit from collectively meeting this most stringent need for reliability at peak load, each LSE should be allocated its Local RA requirements based on their coincident peak load, for which the requirements are set and the benefits received.

II.

COMMENTS ON VARIOUS PROPOSALS ON NQC COUNTING AND AVAILABILITY <u>LIMITED RESOURCES</u>

A. Clarification on SCE Demand Response Auction Mechanism Proposals

During the workshop, a question was raised regarding the two options proposed by SCE in determining Qualifying Capacity ("QC") for third-party demand response ("DR"), such as Demand Response Auction Mechanism ("DRAM") resources. These two options include: (1) to follow Load Impact Protocols; and (2) a seller determined QC paired with back-end controls.⁶ The question is whether both options would be allowed and available. SCE clarifies that both options would be allowed and available under its proposal, but each individual aggregation (*i.e.*, each CAISO resource) would select one or the other methodology.

B. Comments on CEERT Portfolio NQC Proposal

Regarding the Center for Energy Efficiency and Renewable Technologies' ("CEERT") proposal to calculate a "portfolio NQC" for a collection of individual resources within a local area, SCE notes that while there may be some merit in this concept, this proposal nevertheless would likely raise many issues (*e.g.*, issues related to interconnection, market optimization and market processes) in the context of a resource portfolio. Importantly, this would include how the dispatch instruction would be issued and enforced, how the resource portfolio would be optimized and how price formation would work, realizing that the resource portfolio is located in

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⁶ SCE Track 3 Proposals at 8-9. €

a load pocket (likely having market power) to meet a grid need during a contingency event. Therefore, given its complexity, SCE recommends further discussion be provided on these and other issues that arise from this proposal. Given the complexity of this topic, SCE is not convinced that this proceeding can result in a decision to implement changes in this area. That said, SCE is supportive of undertaking a dialogue to better understand how a resource portfolio versus the current Net Qualifying Capacity ("NQC") counting rules could be implemented given the changes in attributes of available resources on the grid.

C. Comments on Sunrun Behind-the-Meter Distributed Energy Resources Proposals

1. Behind-the-Meter Distributed Energy Resources Incrementality

Sunrun Inc. ("Sunrun") proposes that "the Commission make clear determinations on the question of incrementality within this proceeding for purposes of providing RA capacity." Sunrun mentions other Commission proceedings where incrementality issues have previously been addressed, including the Integrated Distributed Energy Resources ("IDER") Rulemaking and the Multiple-Use Application ("MUA") Framework in the Energy Storage Rulemaking. However, Sunrun proposes that "the Commission address potential categorical exclusions for the RA "domain" here as well. Sunrun recommends that "[t]he key, preliminary issues the Commission should address at this time is to establish a qualifying capacity counting methodology, a clear incrementality methodology for generation capacity, and a prohibition on excluding BTM DER resources from LSE solicitations."

Incrementality is a cross-cutting issue. SCE supports the Commission making a determination on incrementality after developing a robust record, however, SCE recommends that the Commission should first identify a proper venue to resolve this issue, and then ensure

⁷ Sunrun Track 3 Proposals at 13.

<u>8</u> *Id.*at 13, footnotes 19-21

 $[\]frac{9}{10}$ *Id.* at 13.

 $[\]frac{10}{10}$ *Id.* at 15.

that the determinations made in that venue are consistently applied to all of the proceedings where a determination on incrementality is relevant. SCE believes that the most appropriate venue to further discuss the topic of incrementality is the IDER Rulemaking (R.14-10-003), where the Commission has already established several guiding principles on incrementality and provided specific guidance to the utilities regarding potential methods to determine incrementality. As an alternative, the Commission could take up further discussion on incrementality as a follow-up to the MUA Working Group Report that was submitted in the Energy Storage Rulemaking (R.15-03-011).¹¹

2. Behind-the-Meter Distributed Energy Resources Exporting Energy for RA

Sunrun's proposal seeks to use this proceeding as a forum to address an issue that it has raised in several proceedings – greater ability for DERs to gain access to and compensation from the wholesale market. Sunrun asserts that "current rules restrict the ability of DERs to provide RA capacity" through a CAISO demand response program.¹² Sunrun also claims that "[c]urrently, the only path for RA recognition for customer-sited assets is through a qualifying supply-side demand response program."¹³

Sunrun overstates the restrictions on DERs accessing the wholesale market. There is no restriction on RA resources accessing the wholesale market if they comply with CAISO rules for demand response. CAISO's aggregation of small DERs under the Distributed Energy Resource Provider ("DERP") program do not qualify for RA, but the CAISO has indicated that it expected that there would be a follow-on effort by the Commission (working with the CAISO) to determine the rules by which DER aggregations could qualify for RA recognizing their unique deliverability challenges. In general, DERs exporting energy for sale

See Compliance Report of Southern California Edison Company, Pacific Gas and Electric Company and San Diego Gas & Electric Company on Behalf of the Multiple Use Application Working Group, dated August 9, 2018.

¹² Sunrun's Track 3 Proposals at 5.

 $[\]frac{13}{10}$ Id. at 10.

into the wholesale market can do so through the Wholesale Distribution Access Tariff ("WDAT"), which is a Federal Energy Regulatory Commission ("FERC") jurisdictional tariff.

Sunrun insists that "rules to govern DERs should be taken up here and now to address the most significant near-term barriers for solar and battery storage DERs to serve this critical procurement market." In fact, rules to govern DER participation in the RA market are FERC-jurisdictional. CAISO's RA market is a FERC-jurisdictional capacity market.

Numerous entities requested clarification and/or rehearing regarding the issue of Commission jurisdiction over resource adequacy. Parties state that the issue of resource adequacy is a state rather than a federal concern. As the Commission stated in the September 2006 Order, the question of jurisdiction over resource adequacy is a complex matter that represents "the confluence of state-federal jurisdiction." While we are cognizant of the traditional role of state and local entities in regulating resource adequacy, we are also aware of our responsibility under the FPA to ensure the reliability of the system and that wholesale rates are just and reasonable. We will defer to state and local entities' decisions when possible on resource adequacy matters, but in doing so we will not shirk our congressionally-mandated responsibilities. We find that the adequacy of resources can have a significant effect on wholesale rates and services and therefore is subject to Commission jurisdiction. 15

Such a change would likely require the CAISO to seek tariff revisions at FERC to allow a resource not interconnected under a distribution level wholesale access tariff to have access to wholesale markets. The acceptance of such a provision is therefore not completely in the hands of the Commission.

Sunrun argues that "DER providers should be able to seek compensation from an LSE for either providing beneficial load modification above a reasonable 'baseline' forecast, or for providing a supply-side RA resource that an LSE can procure to meet its RA obligations." 16

 $[\]underline{14}$ Id at 9

 $[\]underline{^{15}}$ California Independent System Operator Corp., 119 FERC ¶ 61076, 61632 (2007).

¹⁶ Sunrun's Track 3 Proposals at 20.

To the extent Sunrun is seeking modifications to utilities' existing programs and tariffs, such as the Net Energy Metering ("NEM") tariff, Sunrun should seek to propose and address such modifications in the relevant proceedings that establish and/or modify existing programs or tariffs. In addition, Sunrun's proposed changes might require considerable modifications to the California Energy Commission's ("CEC") load forecasting and DER forecasting methodology, which already accounts for NEM resources as load modifying resources, in order to avoid double counting of the same resource as both a load modifying resource and a supply-side resource. There might also be a potential need for additional metering and accounting methodologies to appropriately account for performance in different domains, *e.g.*, during a CAISO dispatch versus battery usage under non-CAISO dispatch.

The Commission should also consider whether or not the current compensation pursuant to the NEM tariff already compensates the resource for the type of products and services that Sunrun wants to sell and monetize separately. The NEM tariff provides a very generous compensation for exported energy at the utility's retail rates, which include not only the generation component of the utility's rates but also the transmission and distribution components. Before allowing such a resource to receive additional compensation, the Commission should contemplate whether the resource has already been adequately compensated for such a service. This matter was raised and extensively debated in the Energy Storage Rulemaking MUA working group process, and the stakeholders are anticipating the Commission to initiate a regulatory process to resolve such issues. 12

Finally, resources do currently have access to the wholesale market as long as they follow the rules for wholesale market participation. PURPA contracts provide another vehicle for compensating DERs. As with DR and DERP, DERs must comply with rules

R.15-03-011. See Compliance Report of Southern California Edison Company, Pacific Gas and Electric Company and San Diego Gas & Electric Company on Behalf of the Multiple Use Application Working Group, filed August 9, 2018.

established by the jurisdictionally-appropriate regulatory authority and in the appropriate proceeding.

D. CAISO Availability-Limited Resources Proposal

During the workshop, the CAISO presented a proposal that was previously submitted in its Track 2 testimony. The CAISO proposed that the Commission should recognize the impact of Availability-Limited Resources and adopt the CAISO's hourly load and resource adequacy analysis to determine availability needs in local capacity areas. In particular, should the CAISO identify a deficiency in a local area or sub-area that can span longer than four hours, the CAISO proposes that "the deficiency can be met by both availability-limited and non-limited resources, but the duration of availability-limited resources must exceed four hours and specifically meet the needs." 20

SCE agrees with the CAISO that energy limitation (*i.e.*, MWh) need should be recognized for reliability in local areas and sub-areas. However, to resolve a deficiency spanning more than four hours, the duration of individual availability-limited resources does not need to be more than four hours. A MW requirement (in the form of a Local Capacity Requirement) and an MWh energy need are two *separate* measures to ensure the reliability for local areas as further described below.

Local Capacity Requirements, based on one-in-ten year peak load forecast for each Local Capacity Area, 21 ensure the peak load of the area can be met by procured resources. With

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See CAISO Track 2 Testimony, Chapter 6, Availability-Limited Resources (available at http://www.caiso.com/Documents/Jul10_2018_RAProceedingTrack2Testimon-Chapter6-AvailabilityLimitedResources_ProposalNo5_R17-09-020.pdf); CAISO Track 3 Proposals at 2 (available at http://www.caiso.com/Documents/Mar4-2019-Track3Proposals-ResourceAdequacyProgram-R17-09-020.pdf).

¹⁹ CAISO Track 2 Testimony, Chapter 6, Availability-Limited Resources, at 1.

²⁰ CAISO Track 2 Testimony, Chapter 6, Availability-Limited Resources, at 8, as illustrated in Figure 6.

In particular, the requirements are evaluated by running power flow programs. *See* CAISO 2019 Local Capacity Technical Analysis Final Report and Study Results, dated May 15, 2018, at 21 (available at http://www.caiso.com/Documents/Final2019LocalCapacityTechnicalReport.pdf).

different load shapes for different Local Capacity Areas and sub-areas, the definition of peak load warrants further discussion, *i.e.*, whether the peak load should be the load at the system peak hour or the highest load among multiple peak hours (*e.g.*, four-hour peak). An amendment to the current definition of peak load may be necessary in order to address the MW requirement aspect of reliability for Local Capacity Areas and sub-areas. Nevertheless, Local Capacity Requirements as currently established provide an essential measure to ensure the MW-need aspect of reliability for Local Capacity Areas and sub areas.

A MWh energy need, on the other hand, should be a different measure. As long as an energy need, once identified by the CAISO, can be met by resources within the area, in whatever combination of resource dispatch, this aspect of reliability will be fulfilled. For example, for an energy need with a duration of more than four hours, any combination of energy resources, including availability-limited resources, regardless of the duration of those resources, can successfully meet the energy need if there is sufficient energy from the collective set of resources (irrespective of their duration time). As a result, this means that those resources fulfilling the need could be those with a four-hour duration, or shorter.²² This may be the most efficient way to meet energy need with a duration of more than four hours, rather than to mandate that each resource have sufficient runtime duration to meet the entirety of the time duration need. To require a procurement of availability-limited resources with longer duration is potentially more costly, and, therefore, a less efficient approach to address the MWh-need aspect of reliability for Local Capacity Areas and sub-areas. Simply put, the implementation of meeting a load shape through minimum duration requirements of resources will produce an outcome that meets the need, but potentially at the expense of alternatives that are equally effective but less costly. So long as the resources procured, if dispatched correctly, will meet the reliability needs of the

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Using the illustrative figure in the CAISO testimony (Figure 6), this means it only requires the area under the hourly net load curve be filled with energy production of those resources regardless the duration of those resources. CAISO Track 2 Testimony, Chapter 6, Availability-Limited Resources, at 8, Figure 6.

Local Capacity Area, the CAISO should only need a must offer-obligation and an effective dispatch process to ensure the use-limited resources are utilized appropriately to address local conditions.

In short, although the CAISO proposal may be a good starting point, the proposal needs to fully account for potential impacts to the procurement of availability-limited resources. The proposal should not require the duration of availability-limited resources to be longer than four hours in order to address a deficiency with a duration of greater than four hours. Thus, the Commission should not adopt the CAISO proposal, as currently understood by the SCE, in Track 3 as a firm requirement for the 2020 RA compliance year for the reasons laid out above.

III.

COMMENTS ON ENERGY DIVISION'S EFFECTIVE LOAD CARRYING CAPACITY PROPOSAL

SCE would like to use this opportunity to reiterate and advocate for marginal Effective Load Carrying Capacity ("ELCC"), which represents, compared to average ELCC, a more appropriate approach evaluating the reliability contribution of added renewable resources and sending a correct investment signal.²³ In general, the ELCC calculations should support the objective of maintaining reliability by correctly counting reliability contribution from intermittent resources.

Below, SCE offers specific comments on the ELCC proposal that was initially served in November 2018 and updated in February 2019 by the Energy Division.²⁴ The updated proposal provides added clarity. For instance, it clarifies that the objective of this ELCC proposal is not to

²³ SCE Track 2 Testimony at 21 - 25.

The Energy Division proposal on ELCC is included in the ALJ Ruling issued on February 13, 2019. In this proposal, Energy Division proposes ELCC values for supply side solar and wind based on ELCC studies that include wind, solar and storage. Energy Division proposes allocating the diversity adjustment, due to the inclusion of storage resources in the studies, to other resources; in particular, they propose "set[ting] storage ELCC at 100% of nameplate, and to allocate diversity adjustments (positive and negative) to supply side solar in light of how storage is expected to be charged."

propose a (new) ELCC value for storage resources, for which the Energy Division proposes to continue to set the Qualifying Capacity in accordance with previously adopted methods based upon the dispatchable nature of the resource. SCE believes this clarification is important, especially with more storage resources being interconnected to the grid. ELCC studies are essentially a tool to evaluate the capacity contribution of intermittent resources to the reliability of the grid. While it is important to include storage resources as part of the available resources, there is no need to base the RA value of a dispatchable storage device on an ELCC methodology because its dispatch operation can be controlled to meet the subject needs of the grid.

Regarding the proposal "to allocate diversity adjustments (positive and negative) to supply side solar in light of how storage is expected to be charged," 25 SCE strongly cautions against attributing any benefits of storage to solar or wind. Doing so would incentivize procurement of renewable resources even if not all of the reliability benefits are actually attributable to those resources. Moreover, these storage diversity benefits would already be primarily captured in the NQC of the storage unit. For example, consider 100 MW of reliability need in a given hour. The capability of solar, wind, and storage to serve this need would only be actual solar and wind generation in that hour, plus the storage discharge capability (*i.e.*, nameplate). Under this framework, the interaction between storage and renewable generation is only the sum of generation, without any diversity benefit. Entangling the value of storage with other resources in the calculation of reliability benefits brings additional questions. In particular, would the same storage diversity benefit, as shown in the study, be fully captured if it were to treat storage, incremental or existing, in the same manner as other types of resources (thermal, QFs, etc.)? If so, it is not so much the benefits of storage that this study is capturing, but just that of an additional dispatchable resource.

More simply put, SCE is concerned that energy storage simply moves energy from a time of excess energy to a time of energy need. The excess energy exists for many potential reasons.

Energy Division ELCC Proposal, dated February 5, 2019, at 17.

This includes load below the amount of installed capacity capable of generating as a general matter and is not simply a matter of oversupply caused by excess renewable resources. Regardless, the amount of that energy moved from the time of excess to the time of need has already been accounted for in the NQC of the storage resource. If it were the case that sufficient battery storage has been installed to take up all of the excess energy from any period of excess and move that energy to a time of need, then the storage would only have incremental value if a new generating resource was built. Since this is not the case at this time, SCE recommends that Energy Division further describe how the additional reliability benefit of storage is not already

IV.

CONCLUSION

SCE appreciates the opportunity to file these comments to assist in the further development, including a reform, of the Commission's RA program.

accounted for in the NQC for the storage device itself.

Respectfully submitted,

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