California ISO

California Independent System Operator Corporation

# Memorandum

**To:** ISO Board of Governors

**From:** Keith Casey, Vice President, Market & Infrastructure Development

**Date:** October 19, 2016

**Re:** **Decision on reliability services initiative phase 2 proposal**

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***This memorandum requires Board action.***

## EXECUTIVE SUMMARY

The western energy landscape continues to rapidly evolve towards a low-carbon grid that brings with it the challenge of maintaining reliability while managing a greater number of resources, a more diverse resource portfolio, and more variable loads and resources. Addressing this challenge requires a more rigorous and sophisticated approach to ensuring the ISO has the right mix of resource capabilities to reliably operate the system. If sufficient system, local, and flexible capacity are available to the ISO's day-ahead and real-time markets through forward procurement, then the ISO will have the resources necessary to meet system operational needs. The reliability services initiative – phase 2 (RSI 2) addresses a number of issues that pertain to resource adequacy (RA) processes that are necessary to effectively administer the RA program. Management proposes the Board approve the following two enhancements to the RA program:

***Local and system RA capacity designation*** – Under current rules, an RA resource located in a local area that goes on a forced outage must substitute its capacity with another resource located in the same local area, regardless of whether the resource was procured to meet a local capacity requirement. Management proposes to allow resources procured as system capacity in a local area to no longer be required to provide substitute capacity in the same local area. The ISO will modify the RA showings and supply plan templates to allow entities to clearly designate and distinguish the capacity that is being used to meet local and system capacity requirements.

***RA showing requirements for small load serving entities (LSEs)*** – Management proposes that LSEs whose flexible or local RA requirement is calculated to be less than one megawatt (MW) for all 12 months of the applicable RA compliance year will be considered to have an actual monthly flexible or local RA requirement of zero, and as such the LSE will not be required to submit a flexible or local RA showing.  This change will bring treatment of calculated flexible and local RA requirements of less than one MW into alignment with how calculated system requirements of less than one MW are currently treated.

Through the initiative, Management also identified two process enhancements that do not require Board approval, but are listed below for completeness:

***Process to update effective flexible capacity (EFC) list during the year*** – The ISO will clarify the process by which a resource may change its EFC through the course of the RA year.  The ISO will continue to perform the process manually until it implements an automated process in the fall of 2018.

***RA showing tracking and notification*** – The ISO will track RA showings through a reporting tool in its RA business application and implement a communication process to ensure that all LSEs, regardless of size, are notified when they have not submitted a timely RA showing.

Management recommends the following motion:

> ***Moved, that the ISO Board of Governors approves the reliability services initiative phase 2 proposal, as described in the memorandum dated October 19, 2016; and***
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> ***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.***

## DISCUSSION AND ANALYSIS

### *Background*

On March 26, 2015, the Board approved the RSI Phase 1 initiative, which included the RA availability incentive mechanism, a new availability incentive to replace the existing standard capacity product (SCP), and redesigned the rules for replacement and substitution of resources that go on planned and forced outages.  Although RSI Phase 1 improved the availability and outage substitution and replacement rules in several ways, Management subsequently identified additional improvements in RSI 2.  Management proposes the following RSI 2 enhancements.

***Local and system RA capacity designation***

The ISO's RA program requires  LSEs to procure sufficient capacity in three categories: (1) system, (2) local, and (3) flexible.  Management's proposal addresses an equity issue between system and local RA capacity that has been procured.  Currently, RA resources in local capacity areas that go on a forced outage must provide substitute capacity that is also located in a local capacity area or be subject to potential non-availability charges. Some stakeholders assert that the ISO should only require that the substitute capacity come from another local capacity resource if the resource has been explicitly procured to provide local RA capacity. These stakeholders argue that if the capacity on outage was procured to provide system RA capacity, the ISO should only require substitute capacity from another system resource to avoid non-availability charges.

Management proposes to modify the templates for annual and monthly RA showings provided by LSEs and the RA supply plans provided by scheduling coordinators (SCs) of the RA resources to require both entities to specify the MWs of capacity that have been procured to meet local and system RA capacity requirements. The ISO will use this new RA showing information to determine whether a resource that goes on a forced outage must substitute with system or local capacity. The ISO will validate local RA showings to verify that the SCs for resources and LSEs have accounted for local capacity consistently in both showings. If there is a discrepancy between the RA showing and supply plan, the ISO will notify both parties. If the discrepancy remains unresolved, the ISO will maintain its current practice of defaulting to the supply plan.

Management believes that this proposal will minimize the complexity associated with local capacity forced outage substitution rules. Additionally, Management believes that the proposal is a more equitable solution, because substitution requirements mirror the capacity category of the procured capacity.

## ***RA showing requirements for small LSEs***

### *Exemption from RA requirement*

The tariff currently exempts small LSEs from all RA requirements if their measured demand (i.e., system RA requirement) for the previous year was less than one MW. This exemption is based on the challenge and cost associated with trying to procure less than one MW of capacity. However, currently, if a small LSE's calculated system requirement is over one MW, but its calculated flexible or local RA requirement is below one MW, the LSE is not exempt from flexible or local RA requirements and associated RA showings. Management proposes to align the treatment of calculated flexible and local RA requirements of less than one MW. LSEs whose flexible or local RA requirement is calculated to be less than one MW for all 12 months of the applicable RA compliance year will be considered to have an actual monthly flexible or local RA requirement of zero, and as such, the LSE will not be required to submit a flexible or local RA showing.

An LSE may have a flexible, local, or system RA requirement over one MW in one month and under one MW for the rest of the 11 months of the RA compliance year. Management proposes that an LSE would not be required to submit monthly system, local, or flexible RA showings where the LSE's RA requirement for that RA product in that month is less than one MW.

Although the ISO will not require LSEs with a RA requirement of less than one MW to submit a monthly RA showing for the months in which their RA requirement is less than one MW, the ISO will not exempt LSEs from their RA requirements where such requirements still apply. If there is a RA deficiency, the ISO will notify LSEs of the RA deficiency and provide them with an opportunity to cure the deficiency, just as it does today. If the LSE does not cure the deficiency, and the ISO exercises its backstop authority, the LSE will be subject to cost allocation for the capacity procured.

The ISO will also implement the following process enhancements which do not require Board approval, but are included to provide a comprehensive view of the outcome of this stakeholder initiative.

***Process to update EFC list during the year***

In the flexible resource adequacy criteria and must-offer obligation phase 1 stakeholder initiative, the ISO established the methodology for calculating a resource's EFC.[1] Specifically, the ISO calculates a resource's EFC annually using a resource's net qualifying capacity (NQC)[2] and other operational attributes of the resource. With flexible capacity requirements in place, Management has identified a need to improve the EFC calculation and change management process. Specifically, Management proposes to clarify the process by which a resource may change its EFC during the year. The ISO will manually update the EFC list until it implements an automated process in the fall of 2018.

The ISO will update a resource's EFC only upon request from the SC for the resource. If a non-dispatchable resource becomes dispatchable, the SC for that resource must request that the ISO review the EFC for the resource after the change takes effect. This also applies to changes to the NQC of a resource. The SC for a resource must request that the ISO review the EFC value either at the same time or after the SC submits the request to change the NQC value.

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[1] EFC is the amount of a resource's capacity eligible to be counted towards meeting an LSE's flexible RA requirements.

[2] NQC is the net total capacity a resource is eligible to provide as system or local RA based on (1) testing and verification; (2) application of performance criteria; and (3) deliverability restrictions.

***RA showing tracking and notification***

Each year, LSEs are required to submit year-ahead RA showings. Monthly RA showings are currently due 45 days before the operating month. An LSE is allowed to submit monthly showings at the same time it submits its annual showings. An LSE that submits a monthly RA showing after 45 days prior to the operating month will incur a $500 per day penalty until the monthly RA showing is submitted.

To help LSEs avoid incurring large penalties, the ISO will (1) track submission of RA showings through a reporting tool in the ISO's RA business application, and (2) implement a communication process to notify all LSEs, regardless of size, when they have not submitted a monthly RA showing to help them avoid penalties.

## POSITIONS OF THE PARTIES

Calpine, California Department of Water Resources, Silicon Valley Power, Six Cities, NRG, and Southern California Edison either support or do not oppose the proposal to allow system capacity to substitute for capacity located in a local area that is shown as system capacity. They generally agree that the substitution proposal is more equitable than the existing approach because substitution requirements should mirror the capacity category of the procured capacity. The California Public Utilities Commission, San Diego Gas and Electric and Pacific Gas and Electric do not support the system and local designation because they believe that the unbundling of system and local capacity prioritizes compensation over the physical capability of a resource and creates the possibility that a resource may withhold bundled local capacity and force the ISO to procure backstop capacity. Additionally, stakeholders opposing the substitution proposal believe it will increase costs.

Management's proposal provides a mechanism by which an LSE can show the ISO the category of capacity it is relying on to meet its local capacity obligation, which will better align the substitution obligation with the category of capacity that was procured, *i.e.*, system or local. Management's proposal incentivizes LSEs to properly identify the resource as local RA capacity. If an LSE wishes to avoid any potential risks for ISO backstop procurement, it may do so by ensuring that resources in the local area are, in fact, shown as local RA and therefore have a substitution obligation (local for local) that mitigates potential risks of ISO backstop procurement. The proposal is a more equitable solution than the existing framework because substitution requirements mirror the capacity category of the procured capacity.

Six Cities, the Small Publicly Owned Utility Coalition, and Silicon Valley Power do not believe that the ISO's process improvements to track LSE showings and notify deficient LSEs goes far enough. Instead, these stakeholders believe that a proposal that Management initially considered wherein the ISO would automatically roll over RA showings would be a superior solution and minimize the risk of large penalties for late RA showings. Management does not agree with this position because the automation process would potentially result in stale RA data that would simply be rolled forward from one month to the next. Management believes that its current proposal will provide an effective service to customers without the need to implement a costly and complex enhancement.

SDG&E does not support the ISO's second revised draft final proposal regarding RA showings for small LSEs that was posted September 16, 2016 as that proposal, in SDG&E's view, lacks clarity and specific details. To address SDG&E's concerns, subsequent to the September 16, 2016 posting, Management has provided additional details of the specifics of the proposal and how it will work, particularly relative to cost allocation if the ISO has to do backstop procurement.

Finally, the ISO Department of Market Monitoring provided comments supporting Management's proposal and have included their comments in their memorandum to the Board.

## CONCLUSION

Management seeks Board approval of the reliability services initiative phase 2 proposal as described in this memorandum. The proposal enhances the ISO's RA processes by more equitably aligning substitution obligations, allowing updates to resources' EFCs, and providing relief to small LSEs regarding their RA obligations and showing requirements. Management believes that the proposal provides necessary enhancements to effectively administer the RA program.