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**Comments of Northern California Power Agency
CAISO Reliability Services Initiative
Issue Paper**

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The Northern California Power Agency (NCPA) appreciates the opportunity to comment on the CAISO's Reliability Service Initiative (RSI) Issue Paper.

I. COMMENTS ON SCOPE

CAISO notes that the RSI is intended to “look holistically at the ISO’s backstop procurement authority to ensure sufficient resources with the right capabilities are offered into the ISO markets to meet local, flexible and system capacity requirements.”¹ NCPA agrees with CAISO that the goal is to ensure reliability through the right mix of capacity resources. However, a careful analysis of the problem based on a return to first principles demonstrates that the scope of the undertaking CAISO proposes is overly disposed toward an unnecessary system overhaul while at the same time overlooking reforms of important market elements outside the capacity markets that would take the pressure off of capacity markets as the guarantor of reliability. The guiding principles, of course, are that the chosen mechanism must assure California ratepayers of the reliability that they have come to expect, while preserving the jurisdiction of the state of California and its Cities and other governing authorities to meet state and local objectives with respect to environmental protection, minimization of the emissions of greenhouse gases and fuel diversity, through their decisions on appropriate power supply (including demand response and other load-reducing resources).

A) The current Resource Adequacy framework has served California well

The CAISO’s existing Resource Adequacy (RA) framework was introduced in 2004. The existing framework provides a mechanism for ensuring that RA needs are met by requiring load-serving entities (LSE) to make annual and monthly showings demonstrating that they have procured

¹ RSI Issue Paper at 1.

sufficient capacity resources to meet their loads plus a reserve margin. NCPA points out that this system had worked well for California, which has not suffered outages or emergencies related to lack of supply since the system was put in place, and which currently enjoys a reserve margin in excess of 30%. In addition to assuring reliability, the current framework respects the resource determinations of state and local government agencies charged with meeting California's various environmental goals through mechanisms that allow state and local regulatory authorities (LRA) to set procurement priorities best suited to the needs and values of stakeholders and ratepayers, and to address necessary procurement through the long term contracts necessary to encourage the development of new resources.

While NCPA agrees that certain new developments require that additional measures be taken, these developments do not require the sacrifice or wholesale overhaul of a system that has served California well. It is true that California will need increasing amounts of "flexible" capacity in coming years to better integrate the large number of intermittent renewable resources expected to come online in future years. Additionally, a multi-year forward procurement obligation would allow better integration of long term grid planning considerations, both by incentivizing new resources and by providing long-term contracts for existing resources that will be needed for reliability in future years. It is also necessary to replace the current backstop Capacity Procurement Mechanism (CPM) in the CAISO Tariff, presently slated to expire in 2016 (subject to Commission approval).

Nevertheless, the need for these program improvements is not an occasion to throw the baby out with the bathwater. California can implement all of these changes by crafting incremental improvements to the existing RA framework, which is already proven to work. Indeed, efforts already underway demonstrate this fact. The ongoing CAISO stakeholder process for an interim flexible capacity mechanism (Flexible Resource Adequacy Capacity Must Offer Obligation or FRAC-MOO) had gone some ways toward identifying needed flexible products and mechanisms by which LSEs can demonstrate their compliance. The final mechanism can build on this progress. Meanwhile, the CPUC has initiated proceedings to consider expanding RA obligations to require forward multi-year procurement for RA showings², which should establish longer term capacity obligations for existing CPUC-jurisdictional entities. Although NCPA is not CPUC-jurisdictional, it

² Order Instituting Rulemaking to Consider Electric Procurement Policy Refinements pursuant to the Joint Reliability Plan, R.14-02-001, available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M087/K779/87779434.PDF>.

has long evaluated its resource needs based on long term planning elements, and it would not expect to have difficulty in making the showings eventually required by CAISO. In short, much can be accomplished in terms of updating the existing RA program without doing violence to the important jurisdictional demarcations that underlie it, and which allow Californians to make critical decisions about their resource mix.

B) The scope of the RSI ignores other market improvements that could increase the amount of flexible capacity available to the CAISO

Despite the stated intention of undertaking a holistic review, the Issue Paper fails to address other market elements in need of improvement or modification, which could increase the supply of flexible attributes, such as Regulation, offered in the CAISO energy markets. Greater access to services such as Regulation would take some of the pressure off of capacity markets, which the Federal Energy Regulatory Commission (FERC) has struggled to get right, and provide greater revenue to generation resources capable of providing the services CAISO needs now.

However, as NCPA has noted in previous comments in related proceedings, there are certain enhancements and improvements that can be made to the existing CAISO markets that will improve incentives for resources to supply flexibility, and will improve a resource's ability to earn fair compensation for the services provided.

For example, NCPA has observed a troubling settlement outcome associated with the provision of Regulation Up and Regulation Down services that creates an inequitable balance of risks and rewards that may create disincentives for resources to supply regulation services. This is particularly concerning because regulation service is the most flexible product currently available to CAISO to manage the grid in real-time. NCPA's observations are described in the simplified example below:

While this example is equally applicable to Regulation Up, NCPA's focuses on the provision of Regulation Down service. NCPA has observed a number of instances where it was financially harmed for supplying Regulation Down service to CAISO when NCPA fully complied with CAISO dispatch instructions. The following is a proxy example of the issue and the troubling settlement that can result.

Basic Assumptions:

Resource PMax – 100 MW

Certified Regulation Down Capacity – 40 MW

DA LMP - \$30.00

RT LMP - \$500.00

A resource Bids to supply energy up to 100 MW and Regulation Down for an amount up to 40 MW. The resource is awarded 100 MW of energy and 40 MW of Regulation Down in the day-ahead market. As a result, the resource is paid for 100 MW of energy at the DA LMP, and for 40 MW of Regulation Down at the DA capacity rate. In real-time the resource delivers 100 MW of energy as instructed by CAISO. During certain 5-min. intervals the CAISO dispatches the resource into the Regulation Down capacity range. For simplicity we will assume the full 40 MW was dispatched by CAISO. As a result of such dispatch the resource will effectively be required to buy back 40 MW of energy from the CAISO at the RT LMP. This “buy back” is made in the form of instructed imbalance energy. NCPA has observed situations where the RT LMP during the intervals in which it buys back energy has greatly exceeded the DA LMP received by the resource even though the resource is fully complying with dispatch instructions. For example, this resource would receive DA compensation at \$30.00/MWh, but be forced to buy back energy from CAISO at \$500.00/MWh. This negative settlement can result in significant financial harm to the resource, even though the resource is following CAISO’s dispatch instructions to the letter and supplying a product CAISO has argued is vitally important to grid reliability.

This is a simple example of an inequitable balance of risk and reward, and may provide a strong disincentive for resources that are capable of providing regulation service to offer such service to CAISO due to the significant risk of financial harm, particularly when there are other markets in which the resource could bid that would not carry such a risk. This particular issue could be resolved by a rule that prevents the resources from having to “buy back” energy in real-time at a price that is greater than what it received in the day-ahead market, so that the resource is indifferent as between supplying this flexible product to CAISO and bidding in other, less risky markets. CAISO has argued in the past that this risk can be factored into the capacity price offered by the resource, but such strategy is an apple to oranges relationship and does not address the underlying problem of providing proper incentives for the services requested. If the CAISO wants to incent resources to supply valuable services, the structure for settlement must be designed to properly incent the provision of such services, including an equitable balance of risk and reward. This is just one example of how certain aspects of the current market design could be improved to incent the provision of flexible capacity, and ensure resources receive fair compensation for the services they provide. On some level it makes no sense to create entire new structures while failing to correct existing market flaws that actually discourage flexible resources from providing that flexibility in the current markets. The CAISO should be paying some attention to addressing known problems that could bring more flexibility into the daily markets as soon as possible.

The CAISO's own Market Surveillance Committee ("MSC") prefers that CAISO obtain its flexible attributes through properly designed short-run markets as opposed to capacity markets:³

Finally, we conclude by stating our general preference for rewarding generating unit flexibility through revenues from short run markets for energy and ancillary services rather than through capacity (resource adequacy) payments. In the absence of an obvious market flaw that results in short run markets failing to give appropriately higher revenues to flexible capacity than to inflexible capacity, there is no argument for fragmenting resource adequacy markets into submarkets for flexible and inflexible capacity. Designing such markets would also be complicated, and it is uncertain whether it would give effective incentives to provide the needed flexibility when actually needed by market operations.

As has been noted in the past, short-run markets that run many times a day are a much easier target for market reforms than are capacity markets, which may only run once a year, or once a month. It is possible for regulators and CAISO to discern much more quickly whether a new market design is having its intended effect. Further, to the extent that the flaws in the CAISO's regulation market can be addressed, and more flexible attributes made available now, the change could affect both the need for flexible capacity (taking some pressure off of the new capacity mechanism) and the amount of money available through the markets for generation resources that can provide the necessary flexibility CAISO seeks.

II. OTHER OBSERVATIONS

To the extent that the RSI does move in the direction of centralized capacity markets, NCPA emphasizes that in order to continue to respect state and local generation mix priorities, such markets must remain backstop markets in which market participants are free to choose to transact, or not, as they wish. The bilateral contract market currently in place is still a market, which has served California's needs to date.

³ California Independent System Operator Corporation Flexible Capacity and Local Reliability Resource Retention Proposal, Attachment I: ISO's Market Surveillance Committee Opinion on Flexible Capacity Procurement: Risk of Retirement, Sept. 7, 2012 11, Dec. 12, 2012, Docket No. ER13-550-000, eLibrary No. 20121212-5123.