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Comments of Northern California Power Agency Flexible Ramping Products – Revised Straw Proposal

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Northern California Power Agency (“NCPA”) provides the following comments in response to the Flexible Ramping Products revised straw proposal posted by CAISO on November 29, 2011. NCPA operates in the CAISO as a Load Following Metered Subsystem (“LF MSS”). NCPA is uniquely situated in the market as a LF MSS, and based on the facts described below NCPA strongly believes that any costs incurred by CAISO for procurement of Flexible Ramping Products should not be allocated to LF MSS entities.

MSS Load Following Requirements

NCPA, operating as a LF MSS, is contractually obligated to balance its integrated portfolio of supply and demand in real-time through use of Load Following Capacity, to ensure its net portfolio deviations (whether such deviations are attributed to supply or demand) are contained within a tight deviation band. If NCPA is unable to balance its supply and demand portfolio in real-time, NCPA is assessed significant Load Following Deviation Penalties in accordance with the CAISO Tariff. In order for NCPA to successfully follow its load, it must reserve capacity on its generation resources that can be dispatched by NCPA in real-time to manage its portfolio balance. The capacity reserved by NCPA is called Load Following Capacity. Load Following Capacity is reserved as Load Following Up Capacity (“LFU”) and Load Following Down Capacity (“LFD”). NCPA uses its Load Following Capacity to regulate in real-time to respond to its portfolio deviations. Load Following Capacity is not free. Load Following Capacity has an associated opportunity cost that NCPA must bear because the MW quantity of Load Following Capacity reserved by NCPA cannot be offered into the energy or ancillary services markets.

As explain by CAISO in the revised straw proposal, the Flexible Ramping Products (both upward and downward capacity) are designed to deal with the imbalance differences between the RTPD and the RTD. CAISO explains that these differences can result from variability or uncertainties. CAISO describes variability as the difference

between hourly (load following) or 15 minute (flexible ramp) average net load and 5 minute average net load, and uncertainties as the difference between expected net load and the expected net load plus forecast error. As illustrated in Figure 1 of CAISO's revised straw proposal, variability and uncertainties are classified into two categories according to the time they are realized. CAISO further explains that¹:

The market clearing granularity difference between RTPD and RTD results in 5-minute variability to be realized in RTD. In addition, certain uncertainties are also realized after RTPD and before RTD. These post RTPD uncertainties include load forecast changes, variable energy resource production changes, uninstructed deviations, and forced outages. The post RTPD variability and uncertainties are realized before the RTD dispatches, so RTD dispatches can “recourse” according to the realizations. Approaching actual delivery time after the RTD run, the difference between actual supply/demand outputs and RTD supply/demand schedules results in post RTD variability and uncertainties. This real-time variability is caused by using the 5-minute granularity in RTD to approximate continuous output in real-time. These post RTD uncertainties include deviations of actual load from RTD load forecast, uninstructed deviations, small outages which happen in real-time, and so on.

Load Following Capacity is used by a LF MSS to manage the same variability and uncertainties CAISO is working to address with Flexible Ramping Products. Once NCPA reserves Load Following Capacity on its generating facilities, the reserved capacity is used by NCPA to manage load forecast errors, generation deviations and/or other deviations within its portfolio, as required, up to and through real-time. The MW quantity of Load Following Capacity reserved by NCPA is based on its anticipated variability and uncertainties. Similar to the process described by CAISO for determining what amount of Flexible Ramping Products are required, NCPA performs statistical analysis using historical data and other factors to determine the amount of capacity it will reserve as Load Following Capacity.

Cost Allocation

CAISO's requirement for Flexible Ramping Products will be reduced because deviations attributed to a LF MSS will be managed in real-time through use of Load Following Capacity; such should be factored into CAISO's procurement activities. Load

¹ Flexible Ramping Product Revised Straw Proposal, Page 5

Following Capacity acts as and provides the same benefits as Flexible Ramping Products; therefore LF MSS should not be allocated any costs for Flexible Ramping Products procured by CAISO. Allocating Flexible Ramping Products to a LF MSS would be inequitable, unfair, and inconsistent with cost causation because LF MSS are contractually obligated to use Load Following Capacity to manage their demand and supply deviations attributed to variability and uncertainties before and through real-time.