## 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 Procurement Obligations

R.11-10-023 (Filed October 20, 2011)

#### COMMENTS OF THE WESTERN POWER TRADING FORUM

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In accordance with the March 23, 2012 Administrative Law Judge's Ruling Seeking Comment, as amended by Administrative Law Judge David Gamson's March 30, 2012 e-mail to the parties in this proceeding granting an extension of time to submit comments until April 11, 2012, the Western Power Trading Forum ("WPTF")<sup>1</sup> submits these comments on (1) the March 23, 2012 Energy Division Report Resource Adequacy Workshop January 26-27, 2012 ("Workshop Report"), which included a revised Energy Division ("ED") proposal for modifying the current Maximum Cumulative Capability ("MCC") buckets to account for flexibility requirements ("ED MCC Proposal"),<sup>2</sup> and (2) the California Independent System Operator Corporation's ("CAISO's") March 2, 2012 2013 Flexible Capacity Procurement Requirement Supplemental Information to Proposal ("CAISO FCP Supplement").<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> WPTF is a California non-profit, mutual benefit corporation dedicated to enhancing competition in Western electric markets in order to reduce the cost of electricity to consumers throughout the region while maintaining the current high level of system reliability. WPTF actions are focused on supporting development of competitive electricity markets throughout the region and developing uniform operating rules to facilitate transactions among market participants.

<sup>&</sup>lt;sup>2</sup> Available at http://docs.cpuc.ca.gov/efile/RULINGS/162601.pdf.

<sup>&</sup>lt;sup>3</sup> Available at http://docs.cpuc.ca.gov/efile/RESP/162107.pdf.

#### I. COMMENTS

Workshops were held in this proceeding on January 26-27, 2012 and March 30, 2012. Parties in attendance discussed several topics, including:

- The coincidence adjustment;
- Qualifying capacity for resources connected via pseudo-tie and dynamically scheduled resources;
- The rounding convention;
- The ED MCC Proposal; and
- The CAISO FCP Supplement.

WPTF focuses its comments herein on the latter two items, believing them to be of primary importance for Commission consideration moving forward in its discussion and analysis of resource adequacy ("RA") issues.

As discussed below in more detail, WPTF prefers the CAISO FCP Supplement to the ED's proposal, as we believe the former offers a more durable framework moving forward with regard to incorporating flexibility requirements into the generation fleet. However, it was evident at the March 30, 2012 workshop that neither approach will be implemented for the next compliance year of 2013. The utilities expressed substantial opposition to both proposals, at least for next year, and the CAISO indicated at the March 30, 2012 workshop that it would defer incorporating flexibility requirements until 2014. Further, it is expected that there are unlikely to be shortages of flexibility for 2013. As a result, WPTF concurs with the sentiment expressed by numerous parties that it is more reasonable to defer adopting flexibility requirements for

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<sup>&</sup>lt;sup>4</sup> See March 30, 2012 CAISO Flexible Capacity Requirement presentation at Slide 14 (available at http://www.cpuc.ca.gov/NR/rdonlyres/36AF21E5-5608-48EF-A4D5-5D2221BD0E00/0/CAISOFlexibleCapacityRequirement.ppt)

2013. Refining and finalizing either proposal is likely to be a time-intensive endeavor, making it more important to get it done right, rather than to get it done fast.

#### A. The CAISO FCP Supplement

The CAISO FCP Supplement outlines the following multi-step process:

- First, it identifies three "types" of flexible resources that provide any of the following three capabilities:
  - Maximum Continuous Ramp, i.e., the megawatt amount and duration by which the net load (load minus wind and solar) is expected to change continuously in a given direction within a month
  - Load Following (≤ 60 minutes): the maximum megawatts the net load is expected to change in a given hour of a given month
  - Regulation (≤ 5 minutes): the maximum megawatts the net load is expected to change between intra 5-minute dispatch intervals.<sup>5</sup>
- Next, it analyzes net load<sup>6</sup> to determine monthly requirements for each of the three types of flexibility
- Finally, it requires Load-Serving Entities ("LSEs") to procure and show resources that provide 90% of the flexibility requirements in their annual showings, and to procure and show resources that fully meet the flexibility requirements in their monthly showings.<sup>7</sup> Base load resources, intermittent resources, hydro-electric

<sup>&</sup>lt;sup>5</sup> See, e.g., CAISO FCP Supplement at 10, Table 1.

<sup>&</sup>lt;sup>6</sup> For the CAISO, net load is load less wind resources less solar resources.

<sup>&</sup>lt;sup>7</sup> CAISO FCP Supplement at 18-19.

resources, and hourly intertie resources are excluded from providing flexibility services.<sup>8</sup>

For reasons discussed in Section C below, WPTF believes the CAISO approach to be superior to that put forth by ED.

#### B. The ED MCC Proposal

In D.05-10-042, the Commission first put forth the "MCC buckets" approach. Intended to ensure that LSEs did not rely on limited production or limited run-hours resources, it serves as the basis for the ED staff proposal. The goal of the ED Proposal is to restructure the existing MCC buckets to provide greater flexibility so that LSEs can change output at the CAISO's direction in order to meet then current system conditions. ED proposes to restructure the way MCC is calculated and applied, in particular by including dispatchability instead of defining the buckets solely based on hours of operation over the peak as is done currently. ED points out in its proposal that the current MCC buckets were last evaluated in 2005, using data from 2003 through 2005. As load shapes have changed since then, ED believes this necessitates a review of the percentages that have been used to determine the amount of resources that the LSEs could procure in each bucket.<sup>9</sup>

The ED classifies resources into four separate buckets, depending on whether they are dispatchable or use-limited. Below is a summary of the ED MCC Proposal's suggested classification of resources:

 Bucket 1 would consist of resources that are non-dispatchable and limited in hours of consistent operation. They are able to operate and generate energy, but sometimes these resources become a problem for CAISO to manage. This would

<sup>&</sup>lt;sup>8</sup> CAISO FCP Supplement at 22-23.

<sup>&</sup>lt;sup>9</sup> ED MCC Proposal, at p. 5.

be the most restricted bucket and include resources such as non-dispatchable hydro, wind, and non-dispatchable Combined Heat and Power.

- Bucket 2 would consist of resources that are dispatchable but limited in hours of consistent operation. This bucket would include resources like peaker plants, dispatchable Demand Response, and energy storage used as a stand-alone.
- Bucket 3 would consist of resources that are non-dispatchable but are able to produce energy over longer period of hours. This would include resources like solar facilities, nuclear plants, steam turbines, and non-dispatchable geothermal facilities. Most of these resources produce consistent energy predictably, for example solar during the day or base load nuclear facilities during all hours. Solar resources are included in Bucket 3 because load shapes suggest that these resources can operate during continuous peak hours on a typical summer day.
- O Bucket 4 would consist of resources that are dispatchable and are able to produce energy over long continuous hours. The type of resources that would fall in this bucket would typically be combined cycle gas turbine or pumped storage facilities. LSEs would be allowed to procure up to 100% of their resources from this bucket, as these resources are the most reliable options in the resource mix.

ED also analyzed hourly net  $load^{10}$  (i.e. load - wind) data from several years to establish cumulative procurement limits for bucket 1 - 3 resources, those resources deemed non-dispatchable, or that had energy limitations, or both.

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<sup>&</sup>lt;sup>10</sup> Because ED includes solar resources in Bucket 3, ED has a different definition of net load than the CAISO. See footnote 6.

# C. The CAISO FCP Supplement Offers a Better Platform for Adopting Flexibility Requirements.

There are a number of reasons why WPTF prefers the CAISO FCP Supplement to the ED MCC Proposal. First and foremost, the ED proposal adds a layer of complication, whether looked at from either a generator or an LSE perspective. By dividing RA procurement requirements into MCC buckets and then setting limits on each of the different categories discussed above, LSEs will find their reporting obligations made more complicated, as they will have to associate which resources belong in which buckets, and will have to verify that they have not exceeded the allowable limits for Buckets 1-3.

While it adds complication, the ED MCC Proposal is also likely to add unneeded effort. The CAISO's analysis already indicates that it can identify the amount of maximum ramp, load following and regulation it will need each month. Even if reporting parties respect the procurement limits for each of the buckets, it seems reasonable to expect that the CAISO will still analyze the collective sum of shown resources using its own techniques to determine if its separately-determined needs have been met. It is also reasonable to expect that the CAISO will use its backstop authority to procure flexibility that has not been provided through the showings. While there has been no detailed analysis indicating how the two proposals align (or fail to align), it seems all too possible that the CAISO could experience a deficiency in flexibility even if LSEs respect the limitations on procurement in Buckets 1-3.

Fundamentally, WPTF believes that the Commission and interested parties need to engage in far greater analysis as to what the appropriate blend of products ought to be if the MCC buckets approach is to be considered. In particular, the allocation methodology needs much more discussion to properly reflect the value of the different resources. This approach has highly significant financial ramifications for existing facilities and contracts, which has been

given little to no serious analysis. In that regard, WPTF would note that if there is further serious consideration of the MCC buckets approach, consideration will have to be given to grandfathering such arrangements. Otherwise, the benefit of the original bargains struck in these existing arrangements will be seriously adjusted and/or lost to the contract counterparties.

By contrast, WPTF believes that the framework the CAISO has proposed is better than the MCC buckets approach. There is a fundamental difference in the ED and CAISO approaches. Fundamentally, the former seems to focus on an attempt to assure grid reliability by imposing limits upon cumulative RA resources that an LSE procures in Buckets 1, 2, and 3. By imposing maximum procurement levels on those categories, the ED effectively is "telling LSEs what it doesn't want." The CAISO, on the other hand, is advocating for a flexibility approach that "tells the LSEs what the CAISO does want." The latter approach is clearer and easier for parties to understand and implement.

The CAISO proposal has its own flaw, however, which is that the CAISO wants the LSEs to be mandated to procure generation capacity with the above stated operating characteristics whereas WPTF believes that the CAISO should price and procure ramping, load following, and regulation as new "firming" products rather than as a mandated generation capacity procurement requirements. WPTF believes that the CAISO should state what its need will be for ramping products and then the utilities can go to the Commission for authority to buy what is needed. It should be noted that the flexibility overlay can function as a product at the CAISO without a mandatory procurement obligation by the Commission. WPTF believes that the preferable approach would be for the CAISO to define the flexibility obligations so that both ESPs and IOUs know their respective obligations. Then the IOUs can get permission and cost recovery for procurement of the flexibility products through the LTPP proceeding.

WPTF also believes the CAISO approach to be superior because it uses the more granular one-minute net load data as opposed to the ED's use of hourly net load as the basis for the analyses. It is difficult to believe that intra-hour flexibility requirements will be captured by the use of hourly load data. For example, sharp wind ramps or solar drop-outs will likely not be captured with an appropriate degree of accuracy. Flexibility requirements are far more likely to be reflected by the use of more granular load data.

An additional issue is that the MCC buckets approach relies too heavily on differentiations between dispatchable and non-dispatchable, and use-limited and use-unlimited resources, in order to assign resources to different buckets. On a practical basis, drawing these distinctions is likely to be difficult. These are not black and white issues. Rather, they exist within a continuum. As a result, the classification of resources into the different buckets will be controversial and lead to ongoing disputes that will be a distraction and a time waster. For example, the ED MCC Proposal suggests that demand response resources are considered to be dispatchable, while steam turbines are not. Further, it classifies hourly firm intertie resources as dispatchable, while the CAISO FCP Supplement proposes that hourly intertie resources are not eligible to provide flexibility. Some geothermal resources are bucket 3 and some geothermal resources are bucket 4. Without going into the details of each of these items, it is clear that there are likely to be disputes over these and other elements of the ED MCC Proposal. Since the CAISO's approach focuses on well-defined flexibility products, it will likely provide a more effective and easily implemented platform to address RA flexibility needs.

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<sup>&</sup>lt;sup>11</sup> Workshop Report, at p. 7.

<sup>&</sup>lt;sup>12</sup> Id, at pp. 8-9.

<sup>&</sup>lt;sup>13</sup> Id, at p. 9.

<sup>&</sup>lt;sup>14</sup> CAISO FCP Supplement at 23.

# II. THE COMMISSION NEEDS TO DETERMINE WHERE IT WILL ADDRESS MULTI-YEAR FORWARD REQUIREMENTS

WPTF notes that this issue is already at play in the long-term procurement plan ("LTPP") proceeding (R.12-30-014), as the Preliminary Scoping Memo provides as follows:

Multi-year Flexible Capacity Procurement Rules – We may consider adoption of new rules for forward procurement of flexible resources to support grid reliability, for either local reliability reasons and/or grid integration of renewable resources. In conjunction, we may review our policy and consider refinements to our existing rules concerning long-term contract solicitations. 15

WPTF noted in its April 6, 2012 comments on the LTPP Preliminary Scoping Memo that it believes this issue implicitly acknowledges the existence of a "procurement gap" that exists between the annual RA procurement requirements and the ten-year, forward-looking LTPP process. The current regulatory process does not have a mechanism that looks to the years two through nine gap and the flexibility needs during that period. However, this is an issue ripe for both procedural overlap (i.e., is the issue considered here or in the LTPP docket?) as well as jurisdictional overlap (i.e., is this to be a Commission issue or a matter for FERC through its regulation of CAISO?). WPTF believes the Commission should act on this issue now rather than leaving it to an uncertain or indefinite consideration by FERC. Most importantly, it should address the subject in one docket or the other (WPTF expresses no particular preference for which one is selected). Ideally, the CAISO would better define the new flexibility products and indicate the load obligation for the flexibility products. Then the IOUs can seek Commission authority in the LTPP and procure those products through bilateral forward markets. Essentially, this should be a procurement option for the IOU's to buy flexibility products in forward markets, as opposed to a mandatory obligation on all LSEs.

<sup>&</sup>lt;sup>15</sup> Id, at p. 9.

#### III. CONCLUSION

WPTF urges the Commission to spend the necessary time to carefully and thoughtfully examine the issue of how best to implement flexibility into RA procurement by LSEs. For the reasons discussed above, WPTF endorses the CAISO FCP Supplement approach as being the most likely to achieve results that achieve Commission goals while facilitating an efficient RA procurement market.

Respectfully submitted,

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