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

INITIAL COMMENTS OF THE CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON RULEMAKING 11-10-023

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The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these Initial Comments on "preliminary matters pertaining to the scope, schedule, and administration" of Rulemaking (R.) 11-10-023 (Resource Adequacy (RA)).[1] These Initial Comments are timely filed and served pursuant to the Commission's Rules of Practice and Procedure and Ordering Paragraph 5 of R.11-10-023.

I. CERTAIN KEY REFINEMENTS MUST BE MADE TO CURRENT RESOURCE ADEQUACY RULES TO "HARMONIZE" THOSE RULES WITH THIS STATE'S RENEWABLE AND GHG POLICIES AND MANDATES.

In R.11-10-023, the Commission continues its task of annually establishing local procurement obligations and considering local capacity requirements (LCR) (pursuant to the California Independent System Operator's (CAISO's) LCR study), as well as overseeing and refining the RA Program. R.11-10-023 serves as the successor proceeding to R.09-10-032.

Thus, among other things, the Preliminary Scoping Memo for R.11-10-023 extends consideration in this proceeding to issues related to the "Refinement of RA Program Elements." The "candidate issues" listed in Appendix A to R.11-10-023 include:

> "9. In light of the passage of SB 2 1X which establishes a 33% Renewable Portfolio Standard, up to 20,000 MW of new renewable generation could be needed to be added to the system by 2020. The rules and implementation of 33% RPS will

[1] R.11-10-023, at p. 1.

> remain in R.11-05-005. Because a very large percentage of new generation procurement will need to be renewable, this docket will consider any updates to the RA rules or practices in order to account for differences in renewable procurement."[2]

From CEERT's perspective, consideration of updating "RA rules or practices" to "account for differences in renewable procurement" is of great importance since the current RA program fails to account for the impacts on reliability and cost containment of the State's implementation of its 33% RPS by 2020 mandate (Senate Bill (SB) 1X 2)[3] and its greenhouse gas emissions policies (Assembly Bill (AB 32) and Senate Bill (SB) 1368).[4] The combination of a 33% RPS, the expiration of long term contracts with out of state coal plants, and the operation of the State Water Resources Control Board's (SWRCB's) once-through-cooling (OTC) policy will result in an "extreme makeover" of California's generation portfolio with which present RA rules are simply not consistent.

It is for this reason that CEERT greatly appreciates the direction of the Preliminary Scoping Memo and Appendix A, as reflected in Commissioner Ferron's remarks at the Commission Meeting of October 20, 2011, when he introduced R.11-10-023. Specifically, Commissioner Ferron stated that it was his goal to use this rulemaking to "better harmonize" renewables procurement and resource adequacy in a manner that would entail a more "systematic approach" to assessing and interfacing renewables into RA and ensure appropriate qualifying capacity rules.

In keeping with this goal, CEERT offers the following initial recommendations on the issues to be included in the final Scoping Memo for R.11-10-023, including further amplification of Item 9 of Appendix A to R.11-10-023. CEERT believes that it should be the Commission's

[2] R.11-10-023, App. A, at p. 2.
[3] Stats. 2011, ch.1.
[4]

goal to address these issues in Phase 1 (decision by June 2012).[5] However, if this is not possible, Commission precedent for the RA rulemakings permits decisions on RA program refinements after that date, but within the same calendar year.[6] These issues include:

(1) This rulemaking should address the need to refine the current RA rules to appropriately count renewable resources for RA purposes. CEERT notes that it has long challenged the manner in which this Commission has determined qualifying capacity (QC) for intermittent resources for RA purposes. Today, CEERT still has pending an application for rehearing of Commission Decision (D.) 09-06-028 on that point, which, despite being filed more than two years ago, has still not been addressed or resolved by the Commission. This issue is even more important now as, in the coming years, variable renewable resources will become well over one half of the nameplate capacity of the State's generation. The current RA rules must be refined to reflect this change.

(2) This rulemaking should address revisions to correct the RA program's current, erroneous assumption that reliability is assured simply by focusing on maintaining a sufficient operating reserve margin during super peak hours of the year. The recent San Diego-wide area blackout graphically demonstrates the fallacy of this assumption.

(3). This rulemaking should reverse the longstanding creation of RA program rules on a retrospective, instead of prospective, basis. The "once Resource Adequate, always Resource Adequate" dictum means that scarce transmission capacity is reserved even for resources that are sure to retire in the near future. The inevitable result is delay and cost increase in new renewable generation and/or surplus transmission sited in the wrong places, while other regions continue to suffer from a lack of transmission capacity needed for reliability and cost effective new generation interconnection.

[5] See, e.g., D.11-06-022.
[6] See, e.g., D.11-10-003 (demand response RA rule refinements).

In addition to these issues, CEERT offers a further comment related to the role of RA in the Long Term Procurement Plans (LTPPs) of load serving entities (LSEs). Regardless of how the RA rules are written, resources that do not immediately fully qualify for RA capacity should not be categorically excluded from LSE procurement portfolios.

It is true that a resource that has Net Qualifying Capacity (NQC) for RA purposes (there is enough transmission available to make the resource "deliverable" under CAISO protocols) has more ratepayer value than a similar resource that only has enough transmission to allow for an "energy only" interconnection (due to a lack of redundant transmission capacity, in order for the new resource to be dispatched, another resource that has NQC for RA purposes must be curtailed). However, several LSEs have adamantly stated that "energy only interconnections" will not be considered for inclusion in their LTPP portfolios.

In moving toward 33% RPS, however, this exclusion of non-RA resources will only lead to higher ratepayer cost, potentially excess transmission, and fewer in-State resources. This is especially true since, in many cases, either RA capacity is currently in surplus or the deficiency in transmission redundancy required to qualify for "full deliverability" is only temporary or applies to only part of the new project's capacity pending construction of a planned future transmission upgrade. While deliverability is an appropriate consideration in the procurement process, it should not be used to automatically disqualify otherwise low cost, best fit projects.

II.
TIMELY REVISIONS TO THE RA RULES CONSISTENT WITH APPROPRIATE RA COUNTING FOR RENEWABLE RESOURCES AND RELIABILITY, GENERATION, AND TRANSMISSION ASSUMPTIONS SHOULD BE ACCOMPLISHED IN PHASE 1.

CEERT's recommended issue areas summarized above require the Commission's timely attention in this proceeding. The first issue, the appropriate counting of RA value of renewable

resources, is an obvious priority. In 2009, the Commission adopted a "70% exceedence" rule for variable renewable resources in Decision (D.) 09-06-028. This decision rejected the use of the long standing theoretically correct Effective Load Carrying Capability method (ELCC) on the basis that it was little used in practice and was computationally difficult.

CEERT, along with several other parties, challenged this "exceedance" rule as ignoring significant differences in capacity attributes among conventional resources. Of principal concern was that the arbitrary and over simplified approximations of RA value that would result from the "exceedance" rule were not only incorrect, but would become increasingly problematic as renewable resource penetration increased. Despite these circumstances, the Commission has elected to ignore long-standing requests by CEERT and other parties, including still-pending applications for rehearing of D.09-06-028, that support Commission adoption of the recommendation by North American Electric Reliability Corporation (NERC) to use the ELCC approach as the "industry standard" in establishing the RA value of intermittent renewable resources.[7]

Adoption of this "industry standard" by the Commission remains a priority today. In the two years since the issuance of D.09-06-028, research and practice on the subject has continued worldwide. Today, there is little or no argument remaining that the reliable value of renewable should be measured by the ELCC methodology.[8]

The work of a variety of groups established to study this issue further support this outcome. In this regard, the Institute of Electrical and Electronic Engineers (IEEE) Wind Power Coordinating Committee established a working group under the Power Systems Analysis, Computing and Economics Committee to address this issue. More importantly, NERC, the

[7] See, R.08-01-025 (RA) CEERT Application for Rehearing of D.09-06-028, at p. 5.
[8] See, e.g., A. Keane, M. Milligan, C D'Annuzio, C. Dent, K. Dragoon, B. Hasche, H. Holttinrn, N. Samaan, L. Soder, and M.J. O'Malley, "Capacity value of wind power," IEEE Trans. Power Syst., vol. 26, pp. 564-572.

organization authorized by federal law to be the technical arbiter for electric grid reliability purposes, created the Integration of Variable Generation Task Force (IVGTF) in 2008 to formally and comprehensively address the issues with integration of large amounts of energy from resources like wind and solar. It was the first report of this Task Force in April 2009 that CEERT and other parties sought to introduce into the record in R.08-01-025 (RA) for consideration in D.09-06-028.

It is time for the Commission to recognize the state of the art today and the severe limitations for the State's emerging resource portfolio. To do so, the Commission must incorporate the current analysis supporting reliance on an ELCC methodology, instead of clinging to old approximations from a past where computing power was limited and the characteristics of virtually all the generation of the time allowed adoption of simplified assumptions without significant problems.

A second priority second issue for this rulemaking is the propriety of continuing to rely on another simplifying assumption that was adopted in the early Resource Adequacy proceedings: equating the reliability of the bulk power system with operating reserve margin during super peak load periods. This simplification will become more and more problematic as the generation profile of the future shifts to reliance on renewable and distributed generation, demand response, and smart grid initiatives, which will bring the customer side of the meter into play.

In this regard, CEERT points out that the ELCC resource accounting methodology is specifically designed with this fact in mind. The metrics and the data required to implement ELCC as an accounting tool for the capacity value of variable generation resources "automatically" consider the reliability and security of the grid at times other than super peak

hours. History demonstrates that, although the absolute probability of an outage may be higher during the rare peak demand hour, bulk system reliability is much more complicated and the majority of outages actually occur during non-super peak events. It is through examination of reliability in a more complicated, nuanced set of scenarios over a range of demand profiles that important issues like flexible, quick start, low minimum load, efficient resources, or the true value of storage, demand response, and distributed generation become clear. If the Resource Adequacy program remains solely focused on only a subset of bulk reliability issues, the result will not achieve either reliability or cost effectiveness.

Finally, CEERT believes that it is critical for the Commission to address and reverse one of the crumbling cornerstones of the current Resource Adequacy process – the retrospective, rather than prospective, nature of the process. Embodied in the seemingly fair and apparently innocuous dictum of "once RA, always RA," the current process treats all existing generation that qualifies for Resource Adequacy as permanent fixtures that effectively have an innate slice of dedicated transmission capacity available for their use and assigns the responsibility for incremental expansion of the grid to the new interconnecting generator.

While such an assumption might be reasonable in a stable world, where new generation is constructed to serve new load growth and generation retirement is an exceedingly rare event, it makes absolutely no sense given the actual generation and procurement policies applicable today. State policy today specifically accelerates retirement of old, inefficient, polluting generation -- whether to reduce carbon footprint, lower future costs of fuel purchases, stop reliance on out of state coal imports, serve environmental justice, or reduce impacts of once through ocean cooling.

The absurdity of the strict application of the current rule became apparent earlier this year when it was revealed that not only was there a lack of new transmission to allow imports of new renewables from the fertile Imperial Valley to qualify for RA status, but that, due to the once RA, always RA dictum, there was not even a mechanism under the RA program to begin to rectify that situation. Given all of the looming generation retirements, this situation must be dealt with systematically and not simply with the band-aid solution proposed by the Commission and the CAISO for Imperial Valley.

Given the importance of these complex issues, CEERT recommends that these issues be targeted for resolution in Phase 1 (by June 2012), but through a workshop, as opposed to hearing, process. For CEERT, the appropriate next step would be a workshop to dialogue on the issues identified above with invitations to organizations such as the NERC Integration of Variable Generation Task Force and similar bodies active in the WECC. CEERT urges the Commission to schedule this first workshop no later than mid-January 2012, to ensure a timely decision, preferably in Phase 1.

III.
CONCLUSION

The process to comport RA rules with the reality of the twenty first century grid must start now. CEERT, therefore, strongly recommends that the Commission undertake to consider and resolve the issues addressed herein by June 2012.

Respectfully submitted,

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