Informal Comments of NRG Energy, Inc. on the
Draft Proposal for Qualifying Capacity and Effective Flexible Capacity
Calculation Methodologies for Energy Storage and Supply-Side Demand Response Resources

R.11-10-023
October 22, 2013

NRG Energy, Inc. ("NRG") submits these informal comments regarding Energy Division Staff's September 13, 2013 Draft Proposal for Qualifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage and Supply-Side Demand Response Resources ("Staff Proposal").

Energy Division Staff have put forward a thoughtful proposal. The time is ripe to consider issues regarding how these kinds of resources can meet RA requirements. Using ELCC analysis to assign QC values is an intriguing approach to a complex problem. NRG appreciates the opportunity to submit these initial informal comments and looks forward to further discussion of this proposed approach.

NRG agrees with Staff that RA eligibility requirements should remain consistent across all resource types, including Energy Storage and Demand Response. However, per staff's proposal, non-DR resources meeting RA requirements are required to provide four hours of energy duration, while DR resources are to be tested for only a two-hour duration. Testing and qualification parameters should be the same across all resources.

According to the Staff Proposal, QC should be based on probabilistic modeling, which assumes likely system needs, rather than on deterministic modeling, which is based on a single assumed case. (Staff Proposal at 4.) However, the current RA program design is focused on meeting system needs at the time of peak demand. ELCC analysis assigns some value to meeting load under all conditions, not just under peak demand conditions. This does not mean that ELCC analysis provides no value with regards to QC value under the current program design, but rather that moving to ELCC analysis to assign QC value may warrant reconsideration

of basic elements of RA program design. This reconsideration may be necessary regardless of the method chosen to assign QC, especially as more use-limited and duration-limited resources are relied on to meet RA requirements.

The theory of evaluating the Loss of Load Expectation ("LOLE") with storage or DR modeled, then re-evaluating LOLE with the storage or DR not modeled (to determine the ELCC) is straightforward, but it is not clear how the DR and storage will be dispatched in the "with" evaluation. Will the storage and DR be dispatched in the "with" analyses at the times of most value, consistent with their use limitations? This will yield the greatest QC value for these resources, but it also assumes perfect, anticipatory dispatch – something that is not likely to happen in real life.

Finally, whether using ELCC analysis to assign QC values to storage and demand response is a suitable approach will ultimately depend on the values that the analyses yield. The experience of R.08-04-012 teaches that complex, assumption-driven analysis can yield questionable results, no matter how well vetted the initial assumptions and inputs may be.

Again, NRG appreciates the opportunity to provide these informal comments, and looks forward to further exploration of this approach.