

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Oversee the)
Resource Adequacy Program, Consider) Rulemaking 11-10-023
Program Refinements, and Establish Annual) (Filed October 20, 2011)
Local Procurement Obligations.)
_____)

**OPENING COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U-902-E)
ON THE PROPOSED DECISION OF ADMINISTRATIVE LAW JUDGE GAMSON ADOPTING LOCAL
PROCUREMENT AND FLEXIBLE CAPACITY OBLIGATIONS FOR 2015, AND FURTHER REFINING
THE RESOURCE ADEQUACY PROGRAM**

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San Diego, California
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**Subject Index of Recommended Changes
To Correct Technical Error in *Proposed Decision***

Change <i>Proposed Decision</i> As Currently Written As Indicated Below	Affected Parts of <i>Proposed Decision</i>
Modify the methodology for determining the effective flexible capacity rating of energy-storage resources to conform to rules of the California Independent System Operator	
<p>Change: Appendix B, at pp.B-17 to B-18, allowing bidirectional energy-storage resources to count their combined discharge (load reduction) and charge (load increase) capacity across a three-hour ramping period in determining their effective flexible-capacity rating.</p> <p>To: Adopt the rules of the California Independent System Operator defining the effective flexible capacity of a bidirectional energy-storage resource as the resource's ability to discharge energy to the grid during a three-hour ramping period;</p> <p>OR, IN THE ALTERNATIVE, allocate the 2015 costs of ISO procurement activities resulting from shortfalls in flexible capacity attributable to the ISO's discounting, if any, of the effective flexible capacity of a bidirectional energy-storage resource solely to the load-serving entity including that resource in its resource-adequacy demonstrations and supply plans.</p>	<ul style="list-style-type: none"> ▪ Modify the discussion in Appendix B, Section 13.2.3.3, at pp.B-17 to B-21, to adopt rules of the California Independent System Operator defining effective flexible capacity of a bidirectional energy-storage resource to the resource's ability to discharge energy to the grid over a three-hour ramping period; ▪ OR, IN THE ALTERNATIVE, modify the discussion in Appendix A, Section II, at page A-3, and Section X, at p.11, to provide for the allocation of the 2015 costs of ISO procurement activities resulting from shortfalls in flexible capacity attributable to the ISO's discounting, if any, of the effective flexible capacity of a bidirectional energy-storage resource solely to the load-serving entity including that resource in its resource-adequacy demonstrations and supply plans.

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THE RESOURCE ADEQUACY PROGRAM***

Pursuant to Rule 14.3 of the Commission’s Rules of Practice and Procedure, San Diego Gas and Electric Company (“SDG&E”) submits these Opening Comments on the *Proposed Decision Adopting Local Procurement and Flexible Capacity Obligations for 2015, and Further Refining the Resource Adequacy Program* (“*Proposed Decision*”) issued by Administrative Law Judge Gamson on or about May 27, 2014. In large measure, SDG&E supports the *Proposed Decision* as written, but submits the *Proposed Decision*’s methodology for determining the effective flexible capacity of bidirectional energy-storage resources unreasonably diverges from the methodology being adopted by the California Independent System Operator (“California ISO” or “ISO”) as part of the ISO’s Flexible Resource Adequacy Capacity Must Offer Obligation (“FRAC-MOO”). This divergence raises the potential that certain load-serving entities and their customers will bear undue costs arising from procurements conducted by the ISO. SDG&E submits the Commission should correct this technical error by modifying the *Proposed Decision* or, at minimum, modifying the cost-allocation rules applicable to Compliance Year 2015 for such costs.

I. A Divergence Between the Methodologies Adopted by the Commission and the California ISO with Respect to Determining the Effective Flexible Capacity of an Energy-Storage Resource May Result in Undue and Costly Overprocurement by the ISO.

The *Proposed Decision* adopts improvements to the flexible-capacity procurement framework adopted last year and outlines binding flexible-capacity requirements for the 2015 resource-adequacy compliance year. Significantly, the *Proposed Decision* adopts a robust set of rules governing eligibility criteria defining flexibility attributes and counting methodologies for energy-storage technologies and demand-response resources. In large part, SDG&E believes the flexible-capacity procurement framework adopted in the *Proposed Decision* achieves a synchronicity between California’s environmental goals and

grid reliability and, so with but one exception, SDG&E supports the adoption of the *Proposed Decision* as written. That exception is related to the *Proposed Decision's* methodology for determining the effective flexible capacity of bidirectional energy-storage resources. As to this aspect of the *Proposed Decision*, SDG&E urges the Commission adopt the counting methodology pending adoption by the California ISO. The divergence between the two agencies' methodologies could result in a determination by the ISO that load-serving entities, either individually or in aggregate, have failed to deliver the level of flexible capacity needed to support grid reliability. Upon such a determination, the California ISO can be expected to invoke its backstop procurement authorities and impose the costs of its procurements upon load-serving entities. The Commission should avoid that result by conforming its decision in this matter to the ISO's counting rules.

Throughout this proceeding and in the companion processes being conducted by the California ISO, SDG&E has repeatedly stated that among the primary strategies by which the Commission and the ISO can minimize the costs of the newly adopted flexible-capacity requirement would be to act in concert, eliminating or substantially limiting any substantive and regulatory differences between the terms of the Commission's flexible-capacity framework and ISO's FRAC-MOO.¹ A number of parties have joined SDG&E in arguing that such differences could lead to the procurement of resources by load-serving entities which would not meet the ISO's reliability requirements, triggering the potential for incremental backstop procurement by the California ISO to cure any deficiencies in flexible capacity.²

The *Proposed Decision* largely adopts the same counting rules proposed by the California ISO relevant to energy-storage resources, with one potentially significant exception. The *Proposed Decision* adopts a counting convention reflecting the capacity of a bidirectional energy-storage resource to **both** discharge **and** charge over a three-hour period. Specifically, the *Proposed Decision* cites the Energy Division Staff proposals as providing "[b]i-directional storage and demand response resources receive an [effective flexible capacity rating] based on their ability to charge (or increase load) over 1.5 hours and discharge (or reduce load) over 1.5 hours."³ Thus, an energy-storage resource with nameplate ratings of

¹ See, e.g., *Opening Comments of San Diego Gas and Electric Company on Phase 3 Resource Adequacy Issues*, Rulemaking 11-10-023, February 24, 2014, at p.1. The *Proposed Decision* generally agrees with this principle at several places. See *Proposed Decision*, printed opinion, at pp.31, 62.

² See *Proposed Decision*, e.g., printed opinion at p.29, noting, "Many parties request that the RA requirements adopted by the CAISO and by the Commission be as consistent as possible in order to avoid backstop, over-procurement, confusion, and other market inefficiencies. This position is taken by ORA, TURN, the CAISO, PG&E, SCE, SDG&E, EnerNOC, CESA, and AReM."

³ See *Proposed Decision*, printed opinion at p.27; also, Appendix B ("Qualifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage and Supply-Side Demand-Response Resources"), at p.B-17.

100 megawatts and 100 megawatt-hours, could be rated at up to 200 megawatts of effective flexible capacity, *i.e.*, a discharge (or load reduction) of one hundred megawatts hours **plus** a recharge (or load increase) of one hundred megawatts for the three-hour ramping period, assuming as does the *Proposed Decision* equivalent discharge and recharge rates and the absence of otherwise limiting operating characteristics. In contrast, the CAISO's FRAC-MOO framework would determine the effective flexible capacity of an energy-storage resource by analyzing **only** the resource's ability to discharge energy to the grid over a three-hour period.⁴ Thus, the same energy-storage resource rated at 200 megawatts by the *Proposed Decision* would receive an effective flexible capacity rating of only thirty-three megawatts under FRAC-MOO. A load-serving entity owning or contracting for that resource could be expected to include the 200 megawatts in its resource-adequacy demonstration under the Commission's rules, only to have the California ISO discount that resource to thirty-three megawatts, an obviously significant gap.

Despite the relatively small amount of emerging energy-storage systems (*e.g.*, batteries and flywheels) participating in the California ISO's markets at present, the Commission should not dismiss the potential for the abovementioned discrepancy as being equally small. Such a view ignores the enormous amount of **conventional** energy-storage resources – in particular, hydroelectric pumped storage – qualified as resource-adequacy resources and which will bear effective flexible-capacity ratings during Compliance Year 2015. As an example, the Helms Creek Pumped Storage facility has a nameplate capacity of over 1200 megawatts, and its effective flexible-capacity rating will only be bounded by its operating limitations and the counting conventions adopted by the Commission and the California ISO. Left unaddressed, the practical impact of the divergence in the two agencies' counting rules is that the Helms Creek facility could hold a significantly greater effective flexible-capacity rating under the *Proposed Decision's* rules than would be the case under the ISO's FRAC-MOO rules. In order to resolve any deficiencies in flexible capacity arising from this gap, the ISO can be expected to invoke its authorities to procure the capacity the ISO deems necessary to protect grid reliability. Under other provisions adopted in the *Proposed Decision*, the costs of these procurements would be allocated to *all* jurisdictional load-serving entities proportional to their

⁴ See Proposed Tariff Section 40.10.4.2(d), available on the California ISO's public website at: http://www.caiso.com/Documents/DraftTariffLanguage_FRAC-MOO.doc.

load-ratio shares, in effect creating a potential procurement subsidy to load-serving entities with, at least for 2015, pumped storage resources by load-serving entities not relying on pumped-storage facilities.⁵

In order to cure the effects of the technical error in the *Proposed Decision* described above, SDG&E recommends the Commission modify the *Proposed Decision* to adopt the California ISO's counting methodology for energy-storage resources. This would eliminate the potential for undue backstop procurements by the ISO and avoid unfair cost impacts to load-serving entities which do not rely on energy-storage resources, particularly hydroelectric pumped storage over the short term, to meet their flexible-capacity requirements. In the alternative, the Commission should at least address the relevant cost-allocation burdens by clarifying that any 2015 backstop costs incurred by the ISO attributable to the discrepancies in effective flexible-capacity ratings caused by the divergence between the Commission's and ISO's rules should be allocated **solely** to those load-serving entities whose energy-storage resources underlie the ISO's procurement activities and create the resulting costs. This would cure, at least for the short term, the unfair allocation of costs to load-serving entities not responsible for resource shortfalls but, rather, arising from the jurisdictional divergences described by SDG&E in these comments. For the longer term, the Commission, the California ISO and the parties should continue their work to force a workable convergence between the rules of the Commission and the California ISO governing the flexible-capacity framework.

Respectfully submitted,

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⁵ See *Proposed Decision*, printed opinion at Appendix A ("Adopted Flexible Capacity Procurement Framework"), pp.A2-A3, where the *Proposed Decision* states, "The ISO intends to follow the CPUC allocation methodology when allocating flexible capacity resource adequacy backstop costs in the event of a shortfall in procurement or operation of flexible generation ... For the 2015 RA year, we will use load ratio share to allocate flexibility among [load-serving entities]." See also, Appendix A at p. A11, where the *Proposed Decision* provides, "If the ISO observes a collective deficiency in [flexible capacity], it might backstop to meet the requirements. In case of such a shortfall, the CPUC will allocate the backstop costs to [load-serving entities] based on their respective load ratio shares."

Appendix of Proposed Findings of Fact, Conclusions of Law and Ordering Paragraphs

Proposed Findings of Fact

None. The Findings of Fact in the *Proposed Decision* do not address counting conventions or cost allocation at the level of detail addressed in these SDG&E Opening Comments.

Proposed Conclusions of Law

None. The Conclusions of Law in the *Proposed Decision* do not address counting conventions or cost allocation at the level of detail addressed in these SDG&E Opening Comments.

Proposed Ordering Paragraphs

None. The Orders in the *Proposed Decision* do not address counting conventions or cost allocation at the level of detail addressed in these SDG&E Opening Comments.