

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of San Diego Gas and Electric
Company (U 902 M) for Approval of its
Energy Storage Procurement Framework as
Required by Decision 13-10-040.

Application 16-03-003
(Filed March 1, 2016)

**RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO SAN DIEGO GAS AND ELECTRIC COMPANY'S APPLICATION FOR
APPROVAL OF ITS 2016 ENERGY STORAGE PROCUREMENT PLAN**

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)¹ hereby submits this response on the *San Diego Gas and Electric Company’s Application for Approval of its 2016 Energy Storage Procurement Plan*, submitted on March 1, 2016 (“Application”), in accordance with Rule 2.6 of the Commission’s Rules of Practice and Procedure and Administrative Law Judge Michelle Cooke’s e-mail ruling issued March 23, 2016, which set this date for filing of protests.

¹ 1 Energy Systems Inc., Advanced Microgrid Solutions, AES Energy Storage, Aquion Energy, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Dynapower Company, LLC, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ELSYS Inc., Energy Storage Systems, Inc., Enphase Energy, EV Grid, GE Energy Storage, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, IMERGY Power Systems, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, K&L Gates, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Mitsubishi Corporation (Americas), NEC Energy Solutions, Inc., NextEra Energy Resources, NRG Solar LLC, OutBack Power Technologies, Panasonic, Parker Hannifin Corporation, Powertree Services Inc., Primus Power Corporation, Princeton Power Systems, Recurrent Energy, RES Americas Inc., Saft America Inc., Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sovereign Energy, Stem, SunEdison, SunPower, Toshiba International Corporation, Trimark Associates, Inc., Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, Younicos. The views expressed in this Response are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

I. INTRODUCTION.

CESA appreciates the opportunity to comment on San Diego Gas and Electric Company's ("SDG&E") Application for Approval of its 2016 Energy Storage Procurement ("ESP") Plan. While CESA is encouraged to see that SDG&E is in compliance with its ESP targets through 2016 for each domain, it was equally disappointed to see SDG&E fail to procure any energy storage in its 2014 Distribution Reliability/Power Quality Request for Proposals ("RFP") and only procure 20 MW in its 2014 All-Source Local Capacity Requirements ("LCR") Request for Offers ("RFO") – below the minimum 25 MW of energy storage as directed by D.14-03-004 from Track 4 of the 2012 Long-term Procurement Plan ("LTPP").

In its 2016 ESP Plan, SDG&E proposes to procure energy storage resources that "simultaneously satisfy SDG&E's storage mandate and meet SDG&E's LCR needs," requiring SDG&E to move on an accelerated procurement and approval process timeline to meet the Commission's deadlines.² SDG&E therefore issued its 2016 Preferred Resources LCR RFO ahead of the December 1 solicitations envisioned in the Energy Storage OIR decision, seeking up to 140 MW of energy storage in any domain. In addition, in a re-run of the failed 2014 Distribution Reliability RFP, where the requirements for cycling capabilities of energy storage resources may have been excessive, SDG&E plans to issue its 2016 Distribution Reliability RFP again seeking up to 4 MW of distribution-connected energy storage.

While generally supportive of SDG&E's 2016 ESP Plan, CESA has been disappointed by SDG&E's recent energy storage procurement results, which leads CESA to believe that SDG&E may again fail to procure sufficient cost-effective energy storage as required. In its response here CESA focuses on several high level considerations to ensure that SDG&E makes progress

² *Amended Prepared Direct Testimony of Joshua M. Gerber on Behalf of San Diego Gas & Electric Company*, submitted April 5, 2016, pp. 2-3.

on its procurement targets. Specifically, CESA recommends that SDG&E and the Commission consider: a) incentives to accelerate SDG&E's solicitation timeline as applicable and practical; b) third-party ownership and operation of energy storage projects for the distribution deferral use case; and c) deferment of procurement to later years only if energy storage is found to not be cost-effective.

II. THE PROCESS FROM REQUESTS FOR OFFERS TO APPLICATIONS FOR APPROVAL TAKES TOO LONG.

Overall, the process from issuing the RFO to submitting Applications for Approval is too long and leads to higher bid costs and risk factors from a number of changes to the market and regulatory environment that occurs over a long solicitation timeline. While it is understandably difficult to structure and develop a relatively new type of contract for energy storage, the process from RFO issuance (September 5, 2014) to Application for Approval submission (March 30, 2016) lasted 19 months for the 2014 All-Source LCR RFO, with an additional 2-3 months needed for the Commission to review the Application. The Commission approval process could potentially be extended several more months depending on whether Protests are filed by parties. The solicitation cycle needs to move significantly faster to reduce transaction costs and minimize external risks from market, regulatory, and capital cost risk faced by both the utility buyer and the third-party bidder. CESA suggests that financial incentives could be provided to the SDG&E to accelerate their solicitation schedule. Overall, SDG&E should be expected to submit executed contracts from their 2016 Preferred Resources RFO based on its experience with energy storage contracts and negotiations during the 2014 All-Source LCR RFO.

III. ENERGY STORAGE PROCUREMENT FRAMEWORKS SHOULD MOVE TOWARD AN OPEN COMPETITION OUTLINING CERTAIN REQUIREMENTS AND REQUESTING SPECIFIC SERVICES TO IDENTIFIED PROBLEMS.

CESA believes that ESP frameworks must balance the need for flexibility to submit innovative and unique bids while providing specificity in what service is required. While certain key requirements must be met (*e.g.*, safety considerations) by all energy storage projects, CESA requests that all ESP frameworks, including that of SDG&E, move toward an open competition where specific services are requested to clearly defined grid needs and problems, but that the investor-owned utilities do not prescribe specific technologies, operational profiles, or ownership models. SDG&E has adhered to these values for its Preferred Resources LCR RFO. However, for the 2016 Distribution Reliability RFP, SDG&E only seeks utility-owned and operated projects.³

CESA sees no need to specify ownership models in its 2016 ESP Plan and believes that SDG&E should be open to third-party owned and operated projects and/or utility owned but third-party controlled and dispatched projects for the T&D deferral use case. While SDG&E is understandably concerned about ensuring distribution reliability, energy storage contracts could be negotiated and structured that set operational parameters to prioritize its reliability service and such that bidders assume the responsibilities and risk for ensuring reliability. The California Independent System Operator (“CAISO”), for example, has a similar obligation to ensure system-wide reliability yet offers Reliability Must-Run (“RMR”) contracts with generating units that gives the CAISO the right to call upon the generator to meet local reliability needs and/or ancillary services. As long as these third-party reliability contracts stipulate that energy storage

³ *Prepared Direct Testimony of Randy Nicholson on Behalf of San Diego Gas & Electric Company, submitted March 1, 2016, p. 7.*

devices “inject enough power at the right times of the day and year and at the low voltage side of the existing transformers” as required of energy storage projects in the 2014 Distribution Reliability RFP, there should be little distribution reliability concerns by SDG&E.⁴ The specification of ownership models (*i.e.*, utility-owned) therefore needlessly precludes innovative business models in providing distribution deferral through energy storage.

IV. SDG&E SHOULD ONLY BE ALLOWED TO DEFER ITS PROCUREMENT SCHEDULE IF ENERGY STORAGE RESOURCES ARE FOUND TO NOT BE COST-EFFECTIVE.

CESA is concerned about SDG&E’s recent energy storage procurement results and the possibility of SDG&E again failing to procure sufficient cost-effective energy storage as required. In assessing the value of energy storage bids in its 2014 All-Source LCR RFO, SDG&E opted to not select certain energy storage contracts for reasons other than the “cost-effectiveness” of energy storage, as illuminated in the Independent Evaluator’s (“IE”) report:

During contract negotiations, SDG&E management began to question the value of an Energy Storage contract that had been shortlisted. SDG&E’s concern was that the RFO was driven by a capacity need for 2022; the resource did not have to be operational earlier. Energy storage can currently be permitted and constructed quickly, and the market expects battery pricing to drop significantly in coming years. If so SDG&E would be locked into a high-priced out-of-market contract and will not share in the cost reductions enjoyed by the developer. SDG&E management saw itself facing the opportunity cost of not delaying the contracting for this capacity, and was particularly sensitive to this due to its recent experiences with solar PV contracts negotiated several years ago but for which the plants have only recently been built. SDG&E management eventually decided to terminate the contract negotiation.⁵

⁴ *SDG&E’s 2014 Energy Storage Distribution Reliability/Power Quality Request for Proposal Seeking a 4 MW Energy Storage System: Post-Solicitation Report*, submitted December 1, 2015, p. 15.

⁵ *San Diego Gas & Electric: Independent Evaluator Report – 2014 LCR RFO*, submitted March 24, 2016, p. 23.

According to the above IE analysis, the energy storage contract bids are not being assessed on cost-effectiveness but based on opportunity cost, which is irrelevant to whether the benefits of energy storage to ratepayers exceed its costs. The Commission should ensure that deferral is only allowed when energy storage bids are found to be not cost-effective, where benefits are not greater than the costs.

Furthermore, in its cost-effectiveness analysis for the 2014 Distribution Reliability RFP, SDG&E should not strictly include the benefits of a single application (*i.e.*, capacity upgrade deferral), which led to SDG&E not procuring any energy storage at the time. As stated above, reliability contracts can ensure that reliability services are provided first by energy storage devices over other potential grid services and revenue streams, but SDG&E should not omit these other grid services in its cost-benefit calculations. SDG&E acknowledges that “because the storage devices are needed for a only a limited number of days to accomplish its deferral objectives, additional revenue streams such as market participation revenue, could improve the economics further.” Yet SDG&E opts to not include these potential value streams in its cost-effectiveness analysis until the actual regulatory rules for multiple-use applications are adopted.⁶ While CESA recognizes that deferral use cases have very specific requirements in terms of time, size, and location, SDG&E should not allow this very specific need to prevent potential energy storage bids from reliably meeting this need while also providing secondary grid services that improve its cost effectiveness.

⁶ SDG&E’s 2014 Energy Storage Distribution Reliability/Power Quality Request for Proposal Seeking a 4 MW Energy Storage System: Post-Solicitation Report, submitted December 1, 2015, p. 17, footnote 3.

V. SDG&E SHOULD CLARIFY THE METHOD USED TO COUNT SELF GENERATION INCENTIVE PROGRAM PROJECTS TOWARDS ITS PROCUREMENT TARGET.

The utilities are using the Self Generation Incentive Program (“SGIP”) as a vehicle to achieve the customer-sited procurement targets. However, CESA recommends clarification as to the calculation method used to count SGIP projects. Utilities should not count SGIP projects based on when the applications are received. CESA believes that SGIP projects should only be able to count towards the utilities’ procurement mandate once they have reached all verification milestones in the program and have been deemed a viable project likely to move forward.

VI. THE WDAT INTERCONNECTION PROCESS SHOULD NOT BE A REQUIREMENT FOR CUSTOMER-SIDE PROJECTS.

A potential Wholesale Distribution Access Tariff (“WDAT”) Phase I requirement for future RFO solicitations was mentioned during SDG&E’s webinar presentation on April 5, 2016, on its 2016 ESP Plan. While CESA does not believe the intent was to apply this to customer-sited projects, CESA seeks clarification that SDG&E should not require a WDAT for customer-sited energy storage resources prior to participating in an RFO. Given that the storage market is in its early stages, unnecessary WDAT requirements will likely hamstring developers, discourage customer-side participation, hamper innovation, and result in lost market opportunity. Rule 21 interconnections will likely be able to participate in ‘fast-tracked’ interconnection process and requiring interconnection as part of customer-sited RFO process will likely result in decreased innovation.

VII. CONCLUSION.

CESA appreciates the opportunity to submit this response to SDG&E’s Application and hopes that SDG&E learns from its past procurement experience to increase its portfolio of

energy storage resources. SDG&E should have a forward-looking view of energy storage that can provide “option value” in mitigating future reliability issues – such as with the grid reliability issues stemming from the gas leak at the Aliso Canyon storage facility – rather than waiting for reductions energy storage costs, when energy storage technologies and bids are cost-effective now. CESA looks forward to working with the Commission and SDG&E in ensuring a robust solicitation of cost-effective energy storage resources going forward.

Respectfully submitted,



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