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

Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.

Rulemaking 14-10-003 (Filed October 2, 2014)

## COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE REPORT OF SAN DIEGO GAS AND ELECTRIC COMPANY (U 902 E) CONCERNING STREAMLINED COMPETITIVE SOLICITATION FRAMEWORK AND UTILITY REGULATORY INCENTIVE MECHANISM PILOT

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the California Energy Storage Alliance ("CESA")<sup>1</sup> hereby submits these comments to the *Report of San Diego Gas and Electric Company (U 902 E) Concerning Streamlined Competitive Solicitation Framework and Utility Regulatory Incentive Mechanism Pilot* ("IDER Pilot Evaluation Report"), filed by San Diego Gas and Electric Company

<sup>&</sup>lt;sup>1</sup> 174 Power Global, 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Avangrid Renewables, Axiom Exergy, Boston Energy Trading & Marketing, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Centrica Business Solutions, Clean Energy Associates, Consolidated Edison Development, Inc., Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectrIQ Power, eMotorWerks, Inc., Enel, Energport, ENGIE, E.ON Climate & Renewables North America, esVolta, Fluence, Form Energy, GAF, General Electric Company, Greensmith Energy, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Iteros, Johnson Controls, KeraCel, Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, NantEnergy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy, Inc., Parker Hannifin Corporation, Pintail Power, Primus Power, Quidnet Energy, Range Energy Storage Systems, Recurrent Energy, Renewable Energy Systems (RES), Sempra Renewables, Sharp Electronics Corporation, SNC Lavalin, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, Tenaska, Inc., True North Venture Partners, Viridity Energy, VRB Energy, WattTime, Wellhead Electric, and Younicos. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (http://storagealliance.org).

("SDG&E") on November 13, 2018. Pursuant to the *E-Mail Ruling Permitting Comments to the November 13, 2018 San Diego Gas and Electric Company Report* ("Ruling") issued by Administrative Law Judge ("ALJ") Kelly A. Hymes on November 13, 2018, CESA timely files these comments in response to the IDER Pilot Evaluation Report.

### I. INTRODUCTION.

CESA appreciates this opportunity to provide thoughtful and constructive feedback to SDG&E's IDER Pilot Evaluation Report, which evaluates the results and the lessons learned around the Competitive Solicitation Framework ("CSF") and the regulatory incentives mechanism to consider and procure distributed energy resources ("DERs") to defer traditional distribution investments. Decision ("D.") 16-12-036 and Resolution E-4889 provided guidance and underpin the Integrated Distributed Energy Resources ("IDER") request for offers ("RFO") and serve as the basis upon which to evaluate the success of SDG&E's IDER RFO. Measured against these guidelines and evaluation criteria, CESA finds that the results of the IDER RFO were largely unsuccessful, and important improvements must be considered and incorporated in the next IDER RFO round to ensure a fair and reasonable process to test whether DERs can serve as viable deferral assets.

CESA does not believe that DERs should be procured in lieu of traditional distribution investment in instances where it is not practical or cost-effective to do so. Rather, it is important to ensure that the screening and prioritization process in the distributed planning process identifies the most viable candidate projects for DERs to potentially defer traditional distribution investments, that the CSF is conducted fairly, transparently, and consistently to provide effective market signals to DER bidders, and that the IDER RFO evaluation methodologies fairly and

appropriately consider the performance characteristics and incrementality of DERs when assessing bids.

With this in mind, CESA offers the below comments as constructive feedback upon which the Commission, SDG&E, and other stakeholders can collaborate to make improvements to the CSF and IDER RFO framework in the next round of solicitations. CESA has been an active participant in the Distribution Planning Advisory Group ("DPAG") in the Distributed Resources Planning (R.14-08-013) proceeding as well as that for the IDER proceeding (R.14-10-003), and plans to continue to work with the Commission, SDG&E, and other stakeholders.

Finally, for future evaluations, CESA recommends that a third-party entity conduct the evaluation to ensure a comprehensive assessment of the key takeaways and lessons learned from the solicitations. Furthermore, stakeholders' views were listed in Attachment A of the IDER Pilot Evaluation Report but were not incorporated into the body of the actual evaluation report. It is important to also reflect the viewpoints of the DER community and other stakeholders in completing a comprehensive assessment of the IDER RFO.

# II. CONTRARY TO SDG&E'S CHARACTERIZATION, THE SOLICITATION WAS NOT SUCCESSFUL.

CESA disagrees with SDG&E's characterization of the solicitation as being successful. By narrowly focusing on the "streamlined" and process aspects of the CSF, SDG&E found the solicitation to be successful and disagreed with stakeholders that DERs must be selected to consider the solicitation successful.<sup>2</sup> While the process may have been streamlined and met the timelines outlined in D.16-12-036, CESA believes that the solicitation was not successful because

3

<sup>&</sup>lt;sup>2</sup> IDER Pilot Evaluation Report, p. 2. CESA adds that SDG&E's response to Question 1 may be more appropriate for the response to Question 4, and the response to Question 1 should focus more broadly on the solicitation, including factors before and during the solicitation, not just the process.

the solicitation was structured unreasonably to make it impossible for DERs to realistically defer the traditional distribution investment, especially by setting single counterparty requirements, tying back-tie service requirements to distribution capacity service, and by using potentially unreasonable incrementality assessment methodologies, which SDG&E views as being factors that are determined external to the actual solicitation. While these factors are determined prior to the solicitation, their implementation resulted in a less-than-robust market response, which ultimately significantly constrained the ability of the solicitation to elicit viable projects from DER bidders. Thus, the lack of cost-effective and/or confirming bids may reflect more on an unsuccessful RFO structure than the ability of DERs to cost-effectively defer traditional distribution infrastructure. Had the solicitation produced a larger pool of bidders and technologies and fostered greater competition among them, the solicitation may have had a greater likelihood of success.

CESA agrees with SDG&E that selection of DERs should *not* be the sole criterion by which the solicitation should be deemed successful, but the fact that the solicitation generated tepid response from the DER community suggests that the solicitation was structured such that DERs never really had a chance to defer the traditional distribution investment. Importantly, the measurement of success of the IDER RFOs should not be just on the streamlining of the steps of the CSF, though beneficial, but should also be on identifying projects and structuring the RFO to invite robust response from DER solutions.

Finally, CESA seeks clarification around how many bids were not conforming and how many bids were conforming but not cost-effective. Such detail on the reasons for non-conformance, as well as the degree to which the DER bids were not cost-effective is not provided. Without compromising confidentiality, there should be a means to provide this information either in aggregate form or narrative form to draw deeper lessons on the IDER RFO.

# III. GREATER JUSTIFICATION IS NEEDED BEFORE REQUIRING BACK-TIE SERVICES AND BEFORE COUPLING BACK-TIE SERVICES WITH DISTRIBUTION DEFERRAL CAPACITY SERVICES.

The biggest concern with SDG&E's IDER RFO was the immediate availability and dispatch requirements tied to back-tie service, which SDG&E is seeking in order to replicate what a "wires" solution would otherwise provide.<sup>3</sup> CESA disagrees with the premise that DERs should mimic a "wires" solution as the IDER RFO is intended to also consider the cost-effectiveness to ratepayers of deferring wires investments in favor of DER alternatives. Additionally, CESA does not find any compelling need to couple thermal capacity services with back-tie services from the same DER solutions. Dispatch for peak capacity is well within technical feasibility of DERs, especially with day-ahead and/or week-ahead notification. Notification windows should be a core component of dispatching DERs for any peak capacity need, as DERs will likely be involved in multiple-use applications providing services elsewhere. However, imposing back-tie service requirements at any time of the year with immediate dispatch will create disproportionate financial and contract risk for DER providers in participating in future IDER RFOs (e.g., potential default for not meeting this need) and will lead to capacity oversizing (and by extension, underutilized capacity) that will make DERs uneconomic compared to the traditional distribution investment.<sup>4</sup>

More detailed justification from SDG&E is needed before requiring back-tie services from DERs that provide peak distribution capacity. Attachment B discusses why back-tie service is important in principle, but a detailed and project-specific justification should also be made when identifying potential candidate projects for IDER RFOs. SDG&E should provide information on

<sup>3</sup> *Ibid*, pp. 12-13.

<sup>&</sup>lt;sup>4</sup> In the October 2018 DPAG meetings, CESA expressed how back-tie services for planned maintenance may be reasonable because of the advanced notice and planning that could be involved in redirecting DERs for this purpose. This level of service may be reasonable to include in the contract. However, back-tie services for unplanned emergencies would create excessive risk and add excessive cost to DERs to meet the distribution deferral need.

how often back-tie services have been needed from the traditional wires solution to help quantify the costs and benefits of back-tie services. It may be unnecessary for back-tie services to be required of DERs if back-tie services have been historically needed on, say, a 1 in 10 year frequency. By contrast, if back-tie services are needed more frequently, such as many times within a year, it may point to there being a different grid problem that must be addressed. Greater information should be provided on the historical need for back-tie services, such as the breakdown between planned versus forced outages. Planned outages may be instances where DERs can reasonably provide back-tie services. More information is also needed on the location-specific risk factors for unplanned outages. If a given location is one where outages are very infrequent, such back-tie service requirements may be unnecessary. Finally, more details are needed on whether and how a wire under an unplanned contingency event would provide 100% back-tie service, before expecting a similar level of performance from DERs. For unplanned emergencies such as fires, it is not an absolute certainty that a wires solution would necessarily maintain service (e.g., wires may need to be de-energized), and thus expecting such certainty from DERs may be unreasonable.

An alternative approach for SDG&E could be to decouple peak capacity and back-tie services and procure them separately. CESA encourages SDG&E to creatively define products and services and to develop contracts that are workable for DERs. While some DERs could be procured for distribution capacity, other DERs could be procured for back-tie services, similar to the Base Interruptible Program ("BIP"), which triggers demand response resources during Stage 1 or 2 emergencies, and could be similarly adapted for the distribution deferral case. Additionally, there may be a way to creatively contract for back-tie services where different DERs could have time-limited windows in which they would be expected to provide back-tie services (e.g., x months).

of the year between y hours of the day) that would increase the feasibility of DERs to provide such services, though it would require SDG&E to over-procure DER capacity to meet the need while allowing for flexibility from DER solutions and potentially multiple counterparties.

# IV. THE PILOT REGULATORY INCENTIVE MECHANISM WAS NOT TESTED AND THUS CANNOT BE ASSESSED FOR SUCCESS.

CESA is generally disappointed that SDG&E did not test the 4% pre-tax incentive mechanism in the pilot IDER RFO. While CESA has thoughts on how the incentive mechanism could be better structured to align IOU incentives to consider DER solutions, a pilot on the already-approved incentive mechanism would have been beneficial to guide where improvements could be made. Thus, without any results to assess, CESA recommends that the Commission direct that SDG&E include the regulatory incentives mechanism in their next IDER RFO round.<sup>5</sup> CESA is unclear on why two different projects are needed to provide the counterfactual of a structure without a regulatory incentive mechanism. As CESA understands it, the 4% pre-tax incentive on DER service payments should be incorporated into the evaluation of DER solutions, which should be compared against the net savings to ratepayers and the net profits to shareholders relative to the traditional distribution investment in determining whether the DER alternative is selected.

The fact that the IDER RFO did not produce any successful distribution deferral projects may be an indication that the regulatory incentive mechanism was not successful as a means to motivate the utility to rely on non-wires alternatives.

7

<sup>&</sup>lt;sup>5</sup> CESA observes that the regulatory incentives mechanism may again not be tested since only one deferral project has been identified and shortlisted for the 2019 IDER RFO. The Commission should consider how this mechanism could be tested given the circumstances.

#### V. THE SINGLE COUNTERPARTY REQUIREMENT IS NOT NECESSARY AND SHOULD BE ELIMINATED.

The single counterparty requirement is an issue that needs to be resolved in the next IDER RFO round. CESA understands the increased level of complexity of contracting from multiple DER providers, as SDG&E notes, but such a portfolio approach with multiple DER providers invite greater market participation and could potentially mitigate some counterparty risks for SDG&E by having multiple DER providers instead of contracting with a single one. CESA notes that certain grid needs could be met by different DER solutions, which different DER providers can develop more optimally than a single counterparty attempting to manage and develop them all in one solution. Especially with the stringent performance requirements from tying back-tie service to distribution capacity service and the "cure provisions" to deliver the contracted DER capacity, no single counterparty would bear the risk of default events from failing to meet these high performance and deployment thresholds. The fact that "wires" projects uses a singlecontractor approach should not mean that SDG&E should use a similar approach in the IDER RFOs, especially if a multi-contractor approach could stimulate market response from innovative DER solutions to deliver cost savings to ratepayers.

### VI. THE INCREMENTALITY METHODOLOGY SHOULD BE REASSESSED AND PLANNING ASSUMPTIONS SHOULD BE MADE MORE TRANSPARENT.

Incrementality issues must be resolved. Behind-the-meter ("BTM") DER developers are discouraged from participating in the IDER RFOs if incrementality methodologies prohibit a previously installed resource from providing additional distribution services. In general, CESA finds it unlikely for DER providers to engage in new builds of BTM DERs solely for the purpose of the IDER RFO, given the deployment, construction, and operational milestones and higher

<sup>&</sup>lt;sup>6</sup> *Ibid*, p. 8.

performance requirements would lead to penalties and possible default if not met. These conditions present excessive risk to BTM DERs that could be deployed and constructed on less risky timelines and with greater revenue certainty to focus on providing customer services. When having to choose between the greater certainty and less risk of Net Energy Metering ("NEM") revenue streams or the Self-Generation Incentive Program ("SGIP") incentives versus the higher risk tied to performance requirements of distribution capacity contracts (e.g., performance-tied events of default), DER providers will choose the former. Moreover, developers that are required to forego the benefits of NEM and SGIP would likely need to seek greater compensation in their IDER bids in order to create a financially viable project. The need to recoup all of the project's cost through the IDER RFO could lead to projects failing the cost-effectiveness screen even if the incremental cost of providing the needed service is less than the traditional investment.

However, it is unnecessary to force this choice upon developers by using the existing incrementality methodology (i.e., Method 4). By allowing DER providers to simultaneously leverage the NEM tariff and SGIP incentives, BTM DERs are more likely to respond to these distribution deferral solicitations and offer incremental capacity and services, potentially at a competitive cost, since some of the costs are already paid down through ratepayer-funded programs such as SGIP. A major difference in the view of incremental services is apparent between CESA and SDG&E, which does not view NEM or SGIP-funded projects as providing incremental services or value to all ratepayers.<sup>7</sup> Some of these discussions on incrementality issues occurred in the Multiple-Use Applications ("MUA") Working Group in the Energy Storage

<sup>&</sup>lt;sup>7</sup> *Ibid*, p. 9.

proceeding (R.15-03-011), and some further direction and resolution is needed from the Commission on some of these disagreements around incrementality.<sup>8</sup>

In response to requests for greater transparency in SDG&E's incrementality approach, CESA greatly appreciates SDG&E providing greater detail on their approach and views for SGIP and NEM systems, as outlined in narrative form in Attachment B and as discussed in the DPAG meetings. CESA agrees that the predictability of DERs in SGIP can be challenging, especially as SGIP rules are in flux and require modifications.<sup>9</sup> However, CESA believes it is a reasonable expectation that SGIP systems follow rate structures to minimize customer bill savings. The intent of the program is to reduce greenhouse gas ("GHG") emissions as well, and while SGIP-funded systems have fallen short on this metric, the 2017 SGIP Advanced Energy Storage Impact Evaluation revealed that outdated electric rates caused much of this performance shortfall. With new rates incorporating updated time-of-use ("TOU") periods along with GHG signals, SGIPfunded systems should see greater alignment of rates, GHG reductions, and grid support. Therefore, to address SDG&E's concerns about predictability, a reasonable "expectation" of SGIP systems is that energy storage charge and discharge cycles will follow rates. It is thus not entirely true that SGIP systems do not have sufficient predictability to establish a baseline by which to assess incrementality. CESA also adds that this baseline should be established by DER offers that indicate how they plan to change the operations of their system.

CESA also believes that the incrementality question as raised by SDG&E in Attachment B puts the onus solely on DER providers to demonstrate incrementality. To make a fair

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<sup>&</sup>lt;sup>8</sup> See also MUA Working Group Report (pp. 40, 60) submitted to the Commission on August 9, 2018. Specifically, the utilities and industry took different views on incrementality. http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M233/K836/233836260.PDF

<sup>&</sup>lt;sup>9</sup> *Ibid*, p. B-3.

incrementality assessment, it would be helpful to also understand the underlying planning assumptions for a given circuit and substation. The assumptions have some level of uncertainty and simplification around the timing and location of DER deployment as well as the operation of DERs. An IDER RFO could, for example, accelerate the deployment or focus the deployment of SGIP or NEM systems in the appropriate area to address an identified distribution grid need. Furthermore, planning assumptions may assume a certain DER operational profiles (*e.g.*, 90% peak capacity reduction for SGIP storage systems, according to the CEC during the Distribution Forecasting Working Group meetings) that may not actually align with the planned DER operations by the developer. CESA believes there is some non-zero incrementality to changing DER operations or firming DER capacity profiles in desired ways.

Furthermore, CESA strongly recommends against outright prohibitions of DERs, such as what is proposed for NEM systems. As noted in our point above, there could be some reasonable level of incrementality. For example, it will be important to understand the planning assumptions for NEM systems to understand what is incremental -e.g., assumed level of pairing storage to standalone NEM systems. There may also be incremental benefits for allowing NEM exports for the identified need above and beyond what is needed.

Finally, CESA understands that compensation is a different incrementality question. It may be difficult to determine the appropriate level of incrementality to ascertain the incremental value of changing DER operations or firming DER capacity. By getting past some of the eligibility incrementality questions, CESA hopes to dive deeper into these questions.

For the purposes of the IDER RFOs, CESA agrees with the recommendation for SDG&E to provide information that details how it assumes DER deployments around a particular

distribution need, as noted in the report.<sup>10</sup> This can be done in Step 5 (solicitation process) and Step 6 (contract approval process) of the CSF, which would allow bidders to understand the incrementality of the bids and allow stakeholders thereafter to assess how resulting contracts were evaluated for incrementality. For stakeholders that may not have public access to resulting confidential contract details, a narrative of the planning assumptions and the DER sourcing mechanism and operations would support stakeholder review of the contract approval process.

# VII. SDG&E'S RESPONSE TO THE RESOLUTION OF A RANGE OF ISSUES MAKES IT UNCLEAR ON WHETHER THEY WILL BE IMPLEMENTED.

In the report, it was noted that the Commission found the protests around planning assumptions, exporting constraints, project development security, project timeline, communication and monitoring requirements, site control, and customer information to be reasonable, but SDG&E consistently noted that stakeholders did not identify an alternate resolution to be included as part of an adopted streamlined CSF. This response to stakeholder comments and the Commission's resolution makes it unclear to CESA on whether these issues will be addressed. CESA requests that these issues be addressed, as the Commission has already found to be reasonable. CESA believes that this is a result of a focus on the CSF process rather than the solicitation at large, which should include the broader solicitation structuring process in the Technology *Pro Forma* Contract Working Group and the DRP DPAG. For some of these issues, though they are addressed outside of the CSF, the resolutions should be implemented in Steps 3-4 (exporting constraints, project development security), Step 5 (customer information, communication and monitoring requirements, site control), or Steps 3, 5, and 6 (planning assumptions).

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<sup>&</sup>lt;sup>10</sup> *Ibid*, p. 10.

VIII. CONCLUSION.

CESA appreciates the ALJ's Ruling to provide stakeholders with an opportunity to submit

these comments to the IDER Pilot Evaluation Report. CESA aims to be a collaborative stakeholder

to improve the CSF and IDER RFO framework to create opportunities for DERs to cost-effectively

defer traditional distribution investment infrastructure to the benefit of ratepayers. CESA thus

looks forward to working with the Commission, SDG&E, and other stakeholders in this

proceeding.

Respectfully submitted,

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Date: November 19, 2018

13