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

Application of San Diego Gas & Electric Company (U902E) for Approval of its 2018 Energy Storage Procurement and Investment Plan.

Application 18-02-016 (Filed February 28, 2018)

Application of Pacific Gas and Electric Company for Approval of its 2018 Energy Storage Procurement and Investment Plan. (U39E).

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Application 18-03-002 (Filed March 1, 2018)

#### OPENING BRIEF OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON AB 2868 ISSUES

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") and pursuant to the schedule set forth in the *Assigned Commissioner's Scoping Memo and Ruling* ("Scoping Memo"), issued by Commissioner Carla J. Peterman on May 24, 2018, the California Energy Storage Alliance ("CESA")<sup>1</sup> hereby submits

<sup>&</sup>lt;sup>1</sup> 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Axiom Exergy, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Centrica Business Solutions, 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 Energy, GAF, General Electric Company, Greensmith Energy, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Iteros, Johnson Controls, Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, NantEnergy,

this opening brief addressing issues laid forth in the Scoping Memo on Assembly Bill ("AB") 2868 implementation for the applications of San Diego Gas and Electric Company ("SDG&E") (A.18-02-016), Pacific Gas and Electric Company ("PG&E") (A.18-03-001), and Southern California Edison Company ("SCE") (A.18-03-002).

#### I. <u>INTRODUCTION.</u>

AB 2868 programs and investments present opportunities for the three investor-owned utilities ("IOUs") to propose distributed energy storage systems to be deployed for innovative use cases, so long as several statutory goals are met. CESA appreciates the creativity of the IOUs to consider how energy storage can be deployed to provide critical customer and community resiliency (PG&E and SDG&E), clean and cost-effective local capacity alternatives (PG&E), support improved reliability of low-performing infrastructure (PG&E), support transportation infrastructure (PG&E), and provide renewables integration (SCE), in addition to stacking many of the same or other benefits in multiple-use applications.

At the same time, CESA has concerns with aspects of each IOU application, particularly around the exclusive consideration of utility-owned storage projects for the proposed investments. CESA also discusses our views on how costs and benefits will be assessed, on topics regarding how thermal energy storage systems, such as heat-pump water heaters ("HPWHs"), meet the definition of "energy storage" as determined in statute and Commission decisions, and on the

National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy, Inc., Parker Hannifin Corporation, Pintail Power, Primus Power, 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, True North Venture Partners, Viridity Energy, VRB Energy, 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).

appropriate level of review of the applications going forward. In sum, without several changes which CESA believes are reasonable, CESA does not support the IOUs' applications.

### II. SHOULD PG&E'S, SCE'S, AND SDG&E'S PROPOSED AB 2868 PROGRAM AND INVESTMENT PLANS BE ADOPTED?

Respectfully, CESA does not support the adoption of SCE's and SDG&E's proposed AB 2868 program and investment plans, unless certain modifications are made around allowing for third-party-owned energy storage systems to compete. More detail is also needed on PG&E's proposal for further stakeholder review prior to adoption.

## III. <u>DO THE PROPOSED AB 2868 PLANS COMPLY WITH D.17-04-039 AND OTHER COMMISSION ENERGY STORAGE DECISIONS</u>?

The proposed AB 2868 plans comply with D.17.04-039 but do not comply with D.13-10-040 which determined that utility ownership should not exceed 50% of storage projects proposed to count toward the MW target, regardless of whether it is interconnected at transmission, distribution, or customer domain, in order to "ensure that any viable market options are not preempted."<sup>2</sup>

# IV. DO THE PROPOSED AB 2868 PLANS SATISFY THE COMMISSION'S DIRECTION THAT THEY INCORPORATE PROPOSALS FOR PROGRAMS AND INVESTMENTS UP TO 166.66 MW OF DISTRIBUTED ENERGY STORAGE INTO THEIR 2018 ENERGY STORAGE PROCUREMENT PLANS PER D.17-04-039?

Yes.

http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M079/K533/79533378.PDF

<sup>&</sup>lt;sup>2</sup> Decision Adopting Energy Storage Procurement Framework and Design Program, D.13-10-045, issued on October 21, 2013, p. 52.

# V. <u>DO THE PROPOSED AB 2868 PLANS REFLECT THE MUA RULES SET FORTH IN APPENDIX A OF D.18-01-003 AND COMPLY WITH ORDERING PARAGRAPH 2 OF THAT DECISION?</u>

Yes, CESA supports the smart approach to stacking of values for the proposed energy storage investments,<sup>3</sup> but greater consideration must be also made for how third-party-owned systems provide viable and competitive multiple-use applications. CESA also agrees with PG&E that cost recovery and allocation of multiple-use energy storage requires resolution in a successor Energy Storage rulemaking.<sup>4</sup>

## VI. DO THE PROPOSED AB 2868 PLANS COMPLY WITH THE ENERGY STORAGE REQUIREMENTS SET FORTH IN PUBLIC UTILITIES CODE SECTIONS 2838.2 AND 2838.3?

No. CESA respectfully believes the proposed AB 2868 plans do not, as CESA understands it, comply with the statutory requirements in two important regards: (1) to ensure minimized overall costs; and (2) to not unreasonably limit or impair the ability of non-utility enterprises to market and deploy energy storage systems.

Importantly, CESA supports opportunities for utility-owned generation where reasonable and is not categorically opposed to such projects by any means. By proposing only utility-owned energy storage investments in their AB 2868 plans,<sup>5</sup> however, CESA believes that a whole category of project ownership models (*i.e.*, third-party-owned systems) is perhaps counterproductively excluded from competing with utility-owned energy storage investments for the incremental authorized procurements under AB 2868. This in turn limits the ability to conduct a

<sup>&</sup>lt;sup>3</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 3 and SDG&E's rebuttal testimony (Johnston) at p. 7.

<sup>&</sup>lt;sup>4</sup> PG&E's rebuttal testimony (Barry) at Chapter 2, p. 4.

<sup>&</sup>lt;sup>5</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 4.

more comprehensive assessment on whether the IOUs are reasonably ensuring minimization of overall costs while achieving the proposed project objectives.

CESA recognizes that procurements of both utility-owned and third-party owned projects within the same solicitation maybe difficult to implement. However, ensuring that there is ample opportunity for third-party-owned systems (under a separate solicitation with comparable online dates) will help ensure that ratepayers interests are served for several reasons. To begin with, procurement of third-party-owned systems even under a different solicitation will provide the Commission with better pricing information to conduct a more comprehensive assessment as to whether the IOUs are ensuring minimization of overall costs while achieving the proposed project objectives. Additionally, ensuring competitive procurement of third-party-owned systems will ensure diversity of ownership models, financing and innovation in energy storage projects. A diversity of ownership models will create more pathways to commercial success for energy storage in California and encourage needed investment and training. D.13-10-040 wisely recognized the benefits of ownership diversity for ratepayers and limited utility ownership to 50% of the procurement authorized in that decision.

The IOUs disagree with CESA in this regard and express that they are not limiting or impairing competition from non-utility enterprises on three key grounds. CESA agrees with the Office of Ratepayer Advocates ("ORA") in terms of the permissibility of third-party energy storage under AB 2868 and the need for a competitive solicitation for utility-owned *and* third-party-owned energy storage systems. 6 CESA provides our response to each of the IOUs' points below.

<sup>&</sup>lt;sup>6</sup> ORA's opening testimony (O'Brien) at Chapter 1, pp. 7-9.

First, the IOUs state that energy storage vendors will have an opportunity to compete for Engineering, Procurement, and Construction ("EPC") and Build-Own-Transfer ("BOT") contracts so competition is part of their investment plans.<sup>7</sup> However, as other parties have noted, it is difficult for the Commission and other stakeholders to assess whether ratepayer costs are truly minimized without broader competition from third-party-owned systems. CESA is *not* taking a position either way in terms of which project ownership model best serves the ratepayer, best achieves the intended grid need, or best stacks value of any given energy storage asset, but without a 'discovery process' from broader competition from the market that enables a diverse range of ownership models, it is difficult to make this determination.

Second, the IOUs argue that the AB 2868 energy storage investments represent a new opportunity for energy storage vendors that they otherwise would not have -i.e., by siting their energy storage projects on utility-owned land and infrastructure. CESA respectfully disagrees. For any of the proposed objectives of the energy storage investments, there may be alternative locations and/or project ownership models that can achieve the same intended objective. Whether to provide resiliency, local capacity, or renewables integration, it is not absolutely necessary, as CESA understands it, to always site projects on utility-owned land and infrastructure under utility owned and operated structures. Third parties have demonstrated capabilities to stack values and manage their energy storage assets to deliver on their primary service obligation while also increasing the utilization of the asset to provide other customer and grid services.

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<sup>&</sup>lt;sup>7</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 4, SCE's rebuttal testimony at p. 7, and SDG&E's rebuttal testimony (Reguly) at p. 11.

<sup>&</sup>lt;sup>8</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 4 and SCE's rebuttal testimony at p. 10.

Third, the IOUs contend that third-party-owned systems are being deployed to meet AB 2514 procurement targets and are thus not impaired by the AB 2868 plans to exclusively focus on utility-owned storage proposals. CESA again respectfully disagrees because the AB 2868 plans are pursuing new and innovative use cases that, as structured, are not available to third-partyowned developers. Most of the AB 2514 projects have focused on addressing local capacity requirements, which has been an important opportunity and use-case validation, especially for third-party-owned storage systems stacking value (e.g., customer bill savings) and managing multiple obligations. CESA has been encouraged to see new use cases of energy storage being contracted for and pending approval before the Commission in the most recent 2016 Energy Storage RFO to provide distribution deferral (i.e., PG&E's Tesla Llagas project) and to provide contingency services (i.e., SCE's Powin project), but these projects have been limited as compared to the vast majority of energy storage projects deployed. Given the novelty of some of the proposed use cases in AB 2868, CESA believes it is yet to be determined whether utility-owned systems represent the best way to maximize benefits and minimize costs. Plus, third-party owners and operators of energy storage systems may also benefit from testing out these use cases – a necessary pre-condition to encouraging further innovation. This is a benefit that PG&E recognizes as reasons for supporting a reporting requirement.<sup>10</sup> It is important to note that CESA supports utility-owned energy storage under the appropriate circumstances.

Finally, SDG&E states that the statute encourages utility ownership and that third parties would impede the resiliency operation for their identified energy storage investments.<sup>11</sup> CESA believes these assertions are overly broad and potentially misrepresent how third-party-owned

<sup>&</sup>lt;sup>9</sup> PG&E's rebuttal testimony (Post) at Chapter 1, pp. 4-5.

<sup>&</sup>lt;sup>10</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 7.

<sup>&</sup>lt;sup>11</sup> SDG&E's rebuttal testimony (Reguly) at pp. 2-3.

energy storage systems have been delivering on reliability services such as Local RA to support grid emergency situations (*e.g.*, Aliso Canyon energy storage procurements in 2016). Assertions about how profit-seeking activities may jeopardize the intended reliability service seem also, to CESA, unfounded and unreasonable because strong contracting structures are able to provide the appropriate incentives and penalties to ensure performance, as has been the case with RA for many years.

Given these concerns, CESA supports the proposal from TURN that utility-ownership of AB 2868 projects should be limited, for now, to 50% of any proposed investments. In addition to all the reasons stated above, a vibrant and competitive marketplace for energy storage will be better assured through caps that provide opportunities for both utility-owned and third-party-owned projects through competitive solicitations that have comparable online dates. The Small Business Utilities Advocate ("SBUA") is correct in this regard that a competitive third-party market may be hindered by restricting the competitive solicitation to utility ownership models. Though the IOUs contend that the AB 2514 framework is not applicable for AB 2868 implementation, many of the same principles and Commission precedent apply here, especially as the proposed energy storage investments are intended to serve new and innovative use cases. D.13-10-040 determined that utility ownership should not exceed 50% of storage projects proposed to count toward the MW target, regardless of whether it is interconnected at transmission, distribution, or customer domain, in order to "ensure that any viable market options are not preempted." It is therefore premature, in CESA's view, for the IOUs to declare that third-party-

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<sup>&</sup>lt;sup>12</sup> TURN's opening testimony at p. 4.

<sup>&</sup>lt;sup>13</sup> SBUA's opening testimony at p. 27.

<sup>&</sup>lt;sup>14</sup> D.13-10-045, p. 52.

http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M079/K533/79533378.PDF

owned energy storage systems would not be viable or would not achieve the statutory requirements as effectively as utility-owned energy storage systems (*i.e.*, preempt the options). SCE acknowledges that there are learning opportunities from third-party energy storage procurement activities (*i.e.*, around how third parties structure performance guarantees). Furthermore, CESA does not find it reasonable to, at this time, completely dismiss the AB 2514 framework, learnings, principles, and precedent. Extensive policy development and Commission precedent through prior decisions were prudently established therein.

In particular, many parties including ORA, TURN, SBUA, and LS Power raise concerns about the oversizing of proposed energy storage investments by SDG&E. <sup>16</sup> In response, SDG&E explains the technical reasons behind why the entire circuit must be serviced, even for temporary periods of time immediately after an outage, to be able to eventually shed non-critical load and serve just the critical loads. <sup>17</sup> However, these other parties highlighted potential alternative and potentially more cost-effective means to achieve the intended objective of providing resilience to identified critical loads, such as by siting energy storage closer to the critical load premises, which could lead to more cost competitive outcomes. It seems prudent therefore to consider all of the options, including third-party-owned systems, to seek least-cost, best-fit solutions.

<sup>&</sup>lt;sup>15</sup> SCE's rebuttal testimony at p. 6.

<sup>&</sup>lt;sup>16</sup> SBUA's opening testimony at p. 9, TURN's opening testimony at p. 9, and LS Power's opening testimony at p. 3.

<sup>&</sup>lt;sup>17</sup> SDG&E's rebuttal testimony (Prsha) at pp. 1-2.

# VII. TO THE EXTENT THAT THE STANDARDS FOR THE PROCUREMENT IN THE AB 2868 CODE SECTIONS DIFFER FROM THE STANDARDS FOR PROCUREMENT IN AB 2514, ARE THERE ANY ISSUES THAT REQUIRE RECONCILIATION?

There are two areas that require guidance from the Commission around AB 2868 energy storage programs and investments as it relates to AB 2514.

First, clarity is needed around the standard by which costs and benefits will be assessed for energy storage programs and investments. The IOUs contend that cost-effectiveness assessments as adopted in AB 2514 do not apply for AB 2868 programs and investments, which are subject to their own statutory requirements to maximize benefits and minimize overall costs. <sup>18</sup> Meanwhile, ORA and TURN argue that cost-effectiveness assessments should apply here. 19 CESA does not have a view on which approach is most appropriate, so long as all the qualitative factors, including those mandated through statute (e.g., reducing dependence on petroleum, reduce GHG emissions, prioritize public-sector and low-income customers), are accounted for. The AB 2514 costeffectiveness assessment has typically factored in qualitative assessments on top of net market value calculations, <sup>20</sup> so CESA finds no major issue with using this approach if qualitative benefits are carefully and fairly incorporated. At the same time, CESA also believes that the AB 2868 standard of minimizing costs and maximizing benefits is useful and may better support MUAs and the factoring in of qualitative benefits. However, greater Commission guidance is needed if this standard is to be used given the tradeoffs between benefits and costs that might materialize during the solicitation process. For example, how will the IOUs and the Commission assess which project

<sup>&</sup>lt;sup>18</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 6, SCE's rebuttal testimony at p. 14, and SDG&E's rebuttal testimony (Bierman) at p. 1.

<sup>&</sup>lt;sup>19</sup> ORA's rebuttal testimony at p. 4.

<sup>&</sup>lt;sup>20</sup> Decision Approving the Results of Southern California Edison Company's Second Preferred Resources Pilot Procurement, D.18-07-023, issued on July 12, 2018, p. 18. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M218/K198/218198816.PDF

to approve if a large 20-MW energy storage system better "maximizes benefits" by being able to stack more value but at a higher investment cost, but a smaller 10-MW energy storage system better "minimizes costs" but cannot stack as much value? The pathway forward to assess these alternative approaches remain unclear.

Second, clarity is needed on how energy storage projects proposed in the AB 2868 plans are classified. The IOUs view AB 2868 energy storage projects as "investments" that are wholly different from "procurement" under the AB 2514 framework – a distinction that <u>may be</u> meaningful in its role in justifying utility-owned energy storage systems only. <sup>21</sup> CESA does not believe that the use of the term "investment" was intended to preclude third-party-owned energy storage systems, as this would contradict the statutory requirement to not unduly limit competition from non-utility enterprises. To clarify, CESA supports utility-owned energy storage systems, so long as they do not preclude the ability for third-party-owned systems to also flourish.

## VIII. WHAT IS THE APPROPRIATE PROCEDURAL MECHANISM (APPLICATION OR TIER 3 ADVICE LETTER) FOR APPROVAL OF INVESTMENTS THAT RESULT FROM AB 2868 PROCUREMENT?

ORA and TURN favor a longer, more extensive application process to approve AB 2868 contracts, while the IOUs propose the use of a more expeditious Tier 3 Advice Letter process.<sup>22</sup> Generally, CESA supports more streamlined contract approval processes, but given the many qualitative factors involved in the assessment and the issue around assessing the competitiveness of utility-owned versus third-party-owned projects, a more extensive Commission and stakeholder review process may be necessary. SDG&E cites Section 2838.2(b) as justification for

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<sup>&</sup>lt;sup>21</sup> SDG&E's rebuttal testimony (Reguly) at p. 6.

<sup>&</sup>lt;sup>22</sup> PG&E's rebuttal testimony (Post) at Chapter 1, p. 12.

"accelerating" the approval process, <sup>23</sup> but Section 2838.2(d)(1) only stipulates that the application must be resolved within 12 months of the date of filing (*i.e.*, February 28, 2018 for SDG&E), which CESA interprets as involving either approval, rejection, or directives to modify the application. CESA finds sufficient statutory basis to consider having the IOUs modify their applications in accordance with our recommendations.

### IX. SHOULD TECHNOLOGY DIVERSITY BE PRIORITIZED IN THE SOLICITATION?

CESA strongly supports ownership model diversity, as explained above. In addition, CESA supports technology diversity and supports the IOUs taking a technology-neutral approach in their competitive solicitations. While technology diversity does not need to be prioritized *per se*, the IOUs should make every effort to allow diverse energy storage technologies to compete in forthcoming solicitations and structure their solicitation documents accordingly. CESA has separately recommended that the Commission adopt a new framework to address technology diversity issues, which can be addressed within the AB 2514 energy storage procurement framework instead of within the targeted AB 2868 plans.

### X. ARE THE PROGRAM DESIGNS OF THE PROPOSED AB 2868 PLANS REASONABLE AND IN THE PUBLIC INTEREST?

CESA supports the proposed programs of each of the IOUs, which leverage best practices from other program designs, such as the Self-Generation Incentive Program ("SGIP"), and aims to synergize with other existing IOU programs. While initially advocating for a more expanded program budget and target MW scope in our protests to each of the applications to align with the

<sup>&</sup>lt;sup>23</sup> SDG&E's rebuttal testimony (Johnston) at p. 6.

MW targets of other existing IOU programs, CESA recognizes that these are pilot-scale programs at this time, which can be expanded upon at a later time.

Upon further review of PG&E's proposal and subsequent testimony, CESA recommends a few modifications to the BTM thermal storage program proposed by PG&E, which will provide incentives to encourage customers to upgrade their existing propane or electric resistant water heaters to heat pump water heaters ("HPWHs") paired with communication equipment. ORA argues that HPWHs do not meet the definition of eligible "energy storage" because it only provides load shifting akin to demand response, citing D.14-10-045 and D.17-04-039. Meanwhile, PG&E cites Public Utilities Code Section 2835 to respond to ORA and support the eligibility of thermal energy storage systems on the basis of being able to "absorbing energy, storing it for a period of time, and thereafter dispatching the energy". CESA disagrees with ORA – HPWHs are eligible energy storage systems as defined by statute and past Commission decisions, and we build upon the response by PG&E.

As PG&E correctly notes, eligible energy storage systems must be capable of load shifting over time. Further clarity was provided in subsequent Commission decisions that established that energy being absorbed or later discharged must be electrical or some other man-made process, <sup>26</sup> the energy storage function is not the direct load response itself, <sup>27</sup> and the energy storage function should affect the state of the grid (*i.e.*, eliminating off-grid uses). <sup>28</sup> In each of these regards,

<sup>24</sup> ORA opening testimony (Peterson, O'Brien) at Chapter 2, pp. 7-8.

<sup>&</sup>lt;sup>25</sup> PG&E's rebuttal testimony (Post) at Chapter 1, pp. 8-9.

<sup>&</sup>lt;sup>26</sup> Decision Approving San Diego Gas and Electric Company, Pacific Gas and Electric Company, and Southern California Edison's Storage Procurement Framework and Program Applications for the 2014 Biennial Procurement Period, D.14-10-045, issued on October 16, 2014, p. 62. http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M127/K426/127426247.PDF

<sup>&</sup>lt;sup>27</sup> *Ibid*, p. 64.

<sup>&</sup>lt;sup>28</sup> Decision Adopting Energy Storage Procurement Framework and Design Program, D.13-10-040, issued on October 17, 2013.

HPWHs meet the energy storage definition – *i.e.*, they store grid-supplied, man-made electricity, they have a separate storage medium (tank) from the end-use load (*e.g.*, cooking, cleaning, bathing, space heating), and they avoid electricity at a later time. Thermal storage has already been approved and counted toward AB 2514 procurement targets as an eligible energy storage technology in SCE's 2013 Local Capacity Requirements ("LCR") RFO, where ice storage systems were selected for many of the same reasons.<sup>29</sup>

However, one key component of being an eligible energy storage technology is that the storage component must be newly procured, installed, and maintained. Section 2835(c) defined "new" as energy storage systems that are installed and first becomes operational after January 1, 2010, while D.14-10-045 clarified that there must be a clear energy storage asset procurement, construction, and maintenance.<sup>30</sup> Thus, while new HPWHs should be a component of the new BTM thermal storage program, CESA observes that existing water heaters with just new controls or communication equipment added may not qualify as an "energy storage program".

# XI. IS SAFETY PROPERLY ADDRESSED IN THE UTILITIES' PLANS FOR INVESTMENTS AND PROGRAMS? WILL THE UTILITIES' PROPOSED PLANS ENSURE SAFE AND RELIABLE DELIVERY OF ENERGY TO CUSTOMERS?

CESA has no comment at this time.

<sup>&</sup>lt;sup>29</sup> Ice storage systems are eligible because they are capable of load shift over time, avoid electricity at a later time, 'charge' from man-made processes, and have separate ice storage medium that is separate from the end-use load (refrigeration). HPWHs are no different.

<sup>&</sup>lt;sup>30</sup> D.14-10-045, p. 62. See also D.17-04-029 that affirmed that natural gas pipelines (*i.e.*, an existing storage medium) was determined to be an ineligible storage component.

## XII. DID SDG&E'S SITE SELECTION PROPOSAL FOR ITS MICROGRID PROJECTS ENTAIL SUFFICIENTLY ROBUST STAKEHOLDER AND COMMUNITY PARTICIPATION?

CESA supports SDG&E's site selection proposal for its microgrid projects but recommends a broader needs definition to allow for third-party competition in their solicitation, where reasonable. Specifically, CESA recommends the Commission direct SDG&E to consider a wider geographical distribution of third-party-owned projects that could serve the intended objective of the energy storage investment. To facilitate third-party developer involvement in the competitive solicitation, SDG&E should make available their distribution mapping systems, as appropriate, to support site selection for projects that could potentially provide the greatest value to ratepayers while achieving the intended objectives.

### XIII. TO THE EXTENT THE PLANS PROPOSE WEIGHTING APPROACHES FOR STATUTORY CRITERIA, ARE THEY REASONABLE?

CESA has no issue with the weighting approaches for the statutory criteria.

### XIV. SHOULD THE UTILITIES' PROPOSED COST RECOVERY METHODOLOGIES BE APPROVED?

CESA has no comment at this time.

### XV. <u>CONCLUSION</u>.

In conclusion, CESA has several concerns with each of the IOU applications and does not support approval of the applications until key modifications are made, particularly around the exclusive consideration of utility-owned storage projects for the proposed investments.

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Respectfully submitted,

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