

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

Order Instituting Rulemaking to consider policy and implementation refinements to the Energy Storage Procurement Framework and Design Program (D.13-10-040, D.14-10-045) and related Action Plan of the California Energy Storage Roadmap.

Rulemaking 15-03-011  
(Filed March 26, 2015)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON PROPOSED DECISION ON TRACK 2 ENERGY STORAGE ISSUES**

Donald C. Liddell  
DOUGLASS & LIDDELL  
2928 2nd Avenue  
San Diego, California 92103  
Telephone: (619) 993-9096  
Facsimile: (619) 296-4662  
Email: [liddell@energyattorney.com](mailto:liddell@energyattorney.com)

Counsel for the  
**CALIFORNIA ENERGY STORAGE ALLIANCE**

March 16, 2017

**TABLE OF CONTENTS**

I. INTRODUCTION.....1

II. THE COMMISSION SHOULD CONTINUE TO BUILD THE RECORD ON THE MERITS OF UPWARDLY REVISING ENERGY STORAGE PROCUREMENT TARGETS.....3

III. THE COMMISSION SHOULD EXPEDITE IMPLEMENTATION OF ASSEMBLY BILL 2868.....6

IV. THE COMMISSION SHOULD ESTABLISH A BALANCING TEST IN IMPLEMENTING ASSEMBLY BILL 2868.....7

V. THE COMMISSION SHOULD ADD THE 500 MW OF ENERGY STORAGE AUTHORIZED UNDER ASSEMBLY BILL 2868 AS AN INCREMENTAL PART OF THE ASSEMBLY BILL 2514 PROCUREMENT TARGET.....8

VI. THE COMMISSION SHOULD INCLUDE ENERGY STORAGE THAT IS IDLING AND PROVIDES GRID SERVICES IN THE REVISED STATION POWER RULES.....10

VII. THE COMMISSION SHOULD ADOPT PERMITTED NETTING RULES FOR BEHIND-THE-METER ENERGY STORAGE PENDING FURTHER CONSIDERATION BY THE COMMISSION.....11

VIII. THE COMMISSION SHOULD ADD BULK STORAGE PROCUREMENT PATHWAYS AND ASSEMBLY BILL 33 STUDIES IN THE TRACK 2 SCOPE.....12

IX. THE COMMISSION SHOULD LEAD THE WORKING GROUP ON COMMUNITY STORAGE ISSUES.....15

X. CONCLUSION.....15

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

Order Instituting Rulemaking to consider policy and implementation refinements to the Energy Storage Procurement Framework and Design Program (D.13-10-040, D.14-10-045) and related Action Plan of the California Energy Storage Roadmap.

Rulemaking 15-03-011  
(Filed March 26, 2015)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON PROPOSED DECISION ON TRACK 2 ENERGY STORAGE ISSUES**

In accordance with 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 on the *Proposed Decision on Track 2 Energy Storage Issues*, issued by Commissioner Carla J. Peterman on February 24, 2017 (“Proposed Decision”).

**I. INTRODUCTION.**

CESA is fully supportive of the progress made in the energy storage market thus far in California, as the investor-owned utilities (“IOUs”) have procured and begun integrating energy storage projects pursuant to the requirements of Assembly Bill (“AB”) 2514 and D.13-10-040.

---

<sup>1</sup> 8minutenergy Renewables, Adara Power, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, Bright Energy Storage Technologies, BrightSource Energy, Brookfield, Consolidated Edison Development, Inc., Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ElectriQ Power, ELSYS Inc., eMotorWerks, Inc., Energport, Energy Storage Systems Inc., Enphase Energy, GE Energy Storage, Geli, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., IE Softworks, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Johnson Controls, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NICE America Research, NRG Energy, Inc., OutBack Power Technologies, Parker Hannifin Corporation, Qnovu, Recurrent Energy, RES Americas Inc., Sharp Electronics Corporation, SolarCity, Southwest Generation, Sovereign Energy, Stem, Sunrun, Swell Energy, UniEnergy Technologies, 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>).

The potential for energy storage resources to address local reliability and capacity challenges in particular has begun to be seriously explored.<sup>2</sup> Several RFOs are also underway to further the use of energy storage in new, innovative use cases, such as community storage and distribution system upgrade deferral.

While great progress has been made in the California energy storage market, numerous challenges and barriers remain such that energy storage resources are not yet a “mainstream” part of the grid. Perhaps most importantly, the role of energy storage in supporting ever larger system integration of renewables remains mostly theoretical. Track 2 of this proceeding (R.15-03-011) should provide a procedural venue to address some of these challenges, including bulk system renewables integration. In the Track 2 Scoping Memo and Ruling issued on January 5, 2016, the following issues were to be considered in Track 2:<sup>3</sup>

- Revision of total MW procurement targets and timeline
- Consideration of new eligible technologies
- Creation of metering, interconnection, cost recovery, and wholesale market participation rules for multiple-use applications
- Clarification of rules, guidance, and rate implications for station power
- Consideration of third-party-owned, utility-side community storage as a use case

Overall, CESA largely supports the Commission’s findings on station power rules and incorporation of AB 2868 implementation in the applications addressed in this proceeding. However, many of these remaining topics, including revision of energy storage procurement

---

<sup>2</sup> This progress has been highlighted by Southern California Edison Company’s (“SCE”) procurement of over 260 MW of energy storage resources in its 2013 Local Capacity Requirements (“LCR”) All-Source Request for Offers (“RFO”) as well as SCE’s and San Diego Gas and Electric Company’s (“SDG&E”) procurement of over 90 MW of energy storage resources in an emergency procurement to address near-term local reliability issues stemming from the moratorium on the Aliso Canyon natural gas storage facility.

<sup>3</sup> *Assigned Commissioner and Assigned Administrative Law Judge’s Scoping Memo and Ruling Seeking Party Comments*, R.15-03-011, issued on January 5, 2016.

targets and eligibility of new technologies, were briefly addressed without any discussion. CESA strongly advocated for a five GW energy storage target sufficient to explore or promote various promising configurations and enhance competition among multiple types of energy storage technology while also focusing on looming bulk renewable system integration needs. CESA's comments here are summarized as follows:

- The Commission should continue to build the record on the merits of upwardly revising energy storage procurement targets.
- The Commission should expedite implementation of Assembly Bill 2868.
- The Commission should establish a balancing test in implementing Assembly Bill 2868.
- The Commission should add the 500 MW of energy storage authorized under Assembly Bill 2868 as an incremental part of the Assembly Bill 2514 procurement target.
- The Commission should include energy storage that is idling and provides grid services in the proposed revised station power rules.
- The Commission should adopt permitted netting rules for behind-the-meter energy storage during intervals of wholesale participation and dispatch.
- The Commission should add bulk storage procurement pathways and Assembly Bill 33 studies in the Track 2 scope.
- The Commission's Energy Division staff should lead the proposed working group on community storage issues.

**II. THE COMMISSION SHOULD CONTINUE TO BUILD THE RECORD ON THE MERITS OF UPWARDLY REVISING ENERGY STORAGE PROCUREMENT TARGETS.**

The Proposed Decision would not raise the level of energy storage procurement targets for reasons such as (1) there is little risk of a lack of energy storage procurement in the near future, given the 2016 RFOs and AB 2868 requirements; (2) the integrated resource planning ("IRP") proceeding (R.12-02-007) will determine the optimal resource mix to meet grid needs; (3) the targets are only the minimum that must be procured, not the maximum; and (4) operational data is just now becoming available, which will inform potential future target

revisions. CESA believes there are both procedural and logical errors in this reasoning, and therefore recommends further consideration and record-building.

Unfortunately, beyond opening and reply comments on the Track 2 Scoping Memo, there was essentially no opportunity to speak to the merits of upwardly revised procurement targets. Moreover, Track 2 progressed directly from the Scoping Memo to the Proposed Decision without any interim workshops or other opportunities for explicit discussions of procurement target revisions. CESA believes this is a substantively inadequate record to establish an informed opinion on such an important issue. At the very least, a workshop should be held to present the case for revising procurement targets beyond 2020.

While CESA understands the Commission's desire to consolidate and optimize resource procurements into the IRP proceeding, the IRP is intended to be an umbrella proceeding, not one that subsumes all resource-specific proceedings, especially if those resources are scoped and legislatively directed to consider procurement targets. In some cases, various resource-specific issues require address in these resource-specific proceedings – something the IRP cannot reasonably provide. As an example of a resource specific issue, a key purpose of AB 2514 legislation was to *transform* the market for energy storage resources. Without such transformation, promoting competition in the IRP construct may be unsuccessful. An upward revision of procurement targets beyond 2020 is intended to facilitate this transformation by providing market certainty and signaling the commitment to this market transformation objective. This signal is experienced around the world, from manufacturers, laborers, developers, insurance providers, financiers, etc., but without adequate readiness and transformation, the industry may not be ready for full participation in the grid's toolkits and market places in California, and elsewhere.

A higher target also would ensure further progress in all energy storage domains. With the current flexibility to shift MWs from one domain to address needs in another, the state could see a case where sufficient experience in one domain (e.g., transmission-connected energy storage) is lacking. All three domains likely present unique challenges and learning opportunities. The Commission can ensure robust learning and market transformation by ensuring broader energy storage procurement in all domains.

The Commission's logic relating to the role of AB 2868 and of remaining procurement targets for transmission-domain storage as a basis for not raising the targets should also be revisited. AB 2868 is an *authorization* to propose programs and investments in energy storage but does not direct procurement, so the potential transformative effects of AB 2868 are very uncertain. The IOUs could feasibly choose to procure minimally or no additional energy storage resources and AB 2868 would not increase procurement.

As CESA as previously noted in comments,<sup>4</sup> urgency of revising procurement targets is needed to make energy storage a mainstream resource in time to support the real near-term grid flexibility challenges expected as California advances toward its renewables portfolio standard ("RPS") goals. Energy storage can readily address curtailment, ramping, congestion, and numerous other grid stability issues relating to high renewable goals while reducing the commitment and need for natural gas-fired resources. A substantial increase in the energy storage procurement target would also ensure progress toward cost reductions as more of these resources become necessary.

---

<sup>4</sup> *Comments of the California Energy Storage Alliance on Assigned Commissioner and Assigned Administrative Law Judge's Scoping Memo and Ruling*, filed on February 5, 2016, pp. 8-15; *Reply Comments of the California Energy Storage Alliance on Assigned Commissioner and Assigned Administrative Law Judge's Scoping Memo and Ruling*, filed on February 19, 2016, pp. 3-10.

The California Independent System Operator's ("CAISO's") Flexible Resource Adequacy Criteria and Must Offer Obligation ("FRACMOO") Phase 2 Initiative highlighted some of the challenges of meeting grid flexibility issues with the current Flexible Resource Adequacy ("RA") Capacity product, which identifies insufficient ramping speed and high minimum operating levels, among a number of other issues, as reasons for not being able to meet the grid's flexibility needs.<sup>5</sup> While this may point to a need to reform the Flexible RA Capacity product, it also points to the need to deploy energy storage resources to address these challenges, given their fast ramping speed, minimal operating level, etc. Even with a reformed product, there would need to be sufficient resources online and capable of providing the service.

The Commission cannot wait for the results of the IRP proceeding to procure energy storage resources, which is expected to take some time, as the Commission and other stakeholders finalize an IRP process and refine necessary modeling. CESA believes that it is premature to determine that revised procurement targets are not needed. There is an insufficient record to determine this reflected in the Proposed Decision, and CESA accordingly recommends that the Commission allow parties to make the case for why these revised procurement targets are needed for market transformation, "no regrets" investments, and near-term grid challenges. At the very least, the Commission should maintain this as an open topic for serious discussion that can be addressed in the near future.

### **III. THE COMMISSION SHOULD EXPEDITE IMPLEMENTATION OF ASSEMBLY BILL 2868.**

The Proposed Decision appropriately sets forth a process for implementing the requirements of AB 2868 in this proceeding. The expected applications for up to 500 MW of

---

<sup>5</sup> *Flexible Resource Adequacy Criteria and Must Offer Obligation Phase 2 Supplemental Issue Paper*, published on November 8, 2016. p. 6.



additional distributed energy storage systems are to be integrated into existing procurement processes and schedules for biennial IOU procurement plans – *e.g.*, by March 1, 2018 for the 2018 cycle. The Proposed Decision also directs the IOUs to host a minimum of two workshops to develop appropriate definitions, proposals, and plans consistent with statute and to hold a preview session of 2018 procurement plans.

CESA agrees with the Proposed Decision that AB 2868 requirements should be implemented in IOU applications associated with this proceeding. While the Proposed Decision adheres to all the requirements and elements of AB 2868, CESA recommends that the Commission expedite the IOU’s incorporation of programs and/or investments focused on low-income and public sector customers to an earlier filing date. This would require the IOUs to file an application pursuant to AB 2868 requirements separate from the biennial applications due on March 1, 2018. Unlike the biennial applications, which require an identification of need on the distribution grid through engineering and load forecasting studies, the identification of low-income and public sector customers and the design of programs and/or investments tailored to them likely does not require such a long time frame. CESA therefore believes that it is feasible to direct the IOUs to file proposals for potential programs and/or investments by December 31, 2017. Workshops sponsored by the Commission’s Energy Division should then be held in May or June of this year with active industry and stakeholder engagement.

**IV. THE COMMISSION SHOULD ESTABLISH A BALANCING TEST IN IMPLEMENTING ASSEMBLY BILL 2868.**

The Proposed Decision does not address in what circumstances utility ownership of energy storage projects pursuant to AB 2868 should be allowed. The Commission clearly must

therefore emphasize and elaborate on Section 2838.2(c)(1) regarding third-party competition.<sup>6</sup> CESA underscores the need to ensure that the programs and/or investments *do not unreasonably limit or impair the ability of nonutility enterprises* to participate in these opportunities. The Commission can draw from D.11-07-029 and D.14-12-079 issued in the Alternative-Fueled Vehicles (“AFV”) Rulemaking (R.13-11-007),<sup>7</sup> which established a balancing test. The balancing test should be applied to these programs and/or investments where the benefits of utility ownership of energy storage are balanced against the competitive limitation that may result from that ownership. For example, when low-income and public sector customers are identified, third parties should be solicited to meet the identified needs before resorting to utility ownership-based solutions. These third parties should be given every opportunity to serve these customers, such as by sharing and providing customer load and grid data. If third parties are unable to meet the identified customer need despite being given every opportunity to serve them, then the IOUs should be encouraged to propose their own solutions. It will be important to underscore and enshrine “even-playing-field” and market competition principles during the AB 2868-related workshops that are proposed in the Proposed Decision.

**V. THE COMMISSION SHOULD ADD THE 500 MW OF ENERGY STORAGE AUTHORIZED UNDER ASSEMBLY BILL 2868 AS AN INCREMENTAL PART OF THE ASSEMBLY BILL 2514 PROCUREMENT TARGET.**

CESA recommends that the 500 MW authorized under AB 2868 be made an incremental part of the AB 2514 procurement target. In other words, the 500 MW should be made a procurement requirement rather than a procurement authorization for each of the IOUs. One of

---

<sup>6</sup> Assembly Bill 2868, Section 2838.2(c)(1): “...if they are consistent with the requirements of this section and do not unreasonably limit or impair the ability of nonutility enterprises to market and deploy energy storage systems.”

<sup>7</sup> *Phase 1 Decision Establishing Policy to Expand the Utilities’ Role in Development of Electric Vehicle Infrastructure*, R.13-11-007, p.5.

the justifications for not revising the procurement targets was the near-term opportunity presented by AB 2868, but this opportunity only exists as an authorization without any “teeth” to actually ensure procurement of energy storage to meet low-income and public sector customer needs. In addition to the benefits of providing critical near-term grid flexibility needs and providing greater market certainty and transformation, increasing the AB 2514 procurement targets by 500 MW would provide significant benefits to low-income customers – a key market segment addressed by the requirements of Senate Bill (“SB”) 350. In opening and reply comments on the implementation of AB 693, a residential incentive program focused on disadvantaged communities,<sup>8</sup> CESA presents the apposite case for why energy storage systems paired with solar photovoltaic (“PV”) systems provide major economic and environmental benefits to disadvantaged communities, including reduced customer bills, reduced local criterion pollutants, and added resiliency value.

A ruling was issued in the IRP proceeding on December 21, 2016, seeking comment on how to incorporate SB 350 requirements into the IRP, which already requires management and optimization of procurements around California’s renewables, greenhouse gas (“GHG”) emissions, and grid reliability goals and objectives. CESA submitted Comments on February 17, 2017, recommending that the Commission incorporate disadvantaged community requirements in the IRP through procurement guidance and requirements, which can be accomplished through setting AB 2868 requirements as a procurement requirement incremental to AB 2514, rather than as a procurement authorization.

---

<sup>8</sup> *Comments of the California Energy Storage Alliance on the Administrative Law Judge’s Ruling Seeking Proposals and Comments on Implementation of Assembly Bill 693*, R.12-11-005, pp. 2-6; *Reply Comments of the California Energy Storage Alliance on the Administrative Law Judge’s Ruling Seeking Proposals and Comments on Implementation of Assembly Bill 693*, R.12-11-005, pp. 5-7.

Overall, the combined benefits of increased market certainty and transformation, improved grid reliability and flexibility, and fulfillment of some portion of the disadvantaged community requirement of SB 350 suggest that the Commission should add the 500 MW requirements AB 2868 to the existing AB 2514 procurement targets. This would also align with the Proposed Decision’s intent to not revise overall procurement targets, given the near-term procurement opportunity presented by AB 2868, which would help ensure that this new opportunity leads to actual additional procurements.

**VI. THE COMMISSION SHOULD INCLUDE ENERGY STORAGE THAT IS IDLING AND PROVIDES GRID SERVICES IN THE REVISED STATION POWER RULES.**

CESA supports the Proposed Decision’s intent to appropriately adopt modified rules for treatment of station power for in-front-of-the-meter (“IFOM”) energy storage resources in accordance with the Staff Proposal.<sup>9</sup> Particularly, CESA supports the Proposed Decision in incorporating CESA’s recommended revisions to Rule 1, Rule 3, and Rule 5, which would allow for energy storage resources to “net” their station power loads during positive generation (discharge) and negative generation (charge). These changes are reasonable and should ensure equitable treatment of energy storage resources along with traditional generators, while also accounting for their unique operational and technological characteristics. Such rules will ensure that energy storage can compete on a level-playing field in the wholesale market – an extremely important objective of Track 2 in this proceeding.

However, the Proposed Decision fails to apply permitted netting rules to energy storage resources when they are idling, and for similar reasons, does not propose to set netting periods greater than 15 minutes. CESA disagrees with the Proposed Decision in that allowing netting

---

<sup>9</sup> *Administrative Law Judge’s Ruling Seeking Comments on Joint Report and Staff Proposal*, R.15-03-011, issued on January 10, 2017.

when energy storage resources are idling “incentivize energy storage resources to remain idle” and in that energy storage resources are unable to self-supply. Energy storage resources providing spinning reserves are clearly participating in the wholesale market without charging or discharging, and commit part or all of their capacity (through day-ahead and hour-ahead bids) as spinning reserves within 10 minutes of an emergency event. Similar to permitted netting rules for charging and discharging, the energy storage resource remains “on” or on standby mode to be made available to the grid operator and be ready to respond to system instructions.

Importantly, station power rules should work to extract the most value from energy storage, including when energy storage is the fastest ramping resource. If rules only allow permitted netting for energy storage providing energy services (*e.g.*, deep cycling), then these fast resources may be disadvantaged or discouraged from offering up their unmatched flexibility to provide ramping as spinning or non-spinning reserves. At the same time, CESA agrees with the Proposed Decision in that idling energy storage without *any* market commitment or participation should not be allowed to net their station power loads because they are not active in the wholesale market.

**VII. THE COMMISSION SHOULD ADOPT PERMITTED NETTING RULES FOR BEHIND-THE-METER ENERGY STORAGE PENDING FURTHER CONSIDERATION BY THE COMMISSION.**

The Proposed Decision proposes deferring adoption of station power rules for behind-the-meter (“BTM”) systems until further development of protocols, processes, and specific metering options is undertaken in the MUA discussions that are expected later this year. CESA believes that the Staff Proposal provided a compelling case for providing similar station power treatment to that proposed for IFOM energy storage resources as long as the resources have a wholesale must-offer obligation and a dedicated sub-meter, but recognizes that details and execution plans for BTM station power netting rules may warrant further review. As such, the

Commission should clarify that the proposed station power netting rules to be effectuated immediately apply primarily to IFOM projects so that confusion is avoided in the near-term.

The Staff Proposal notes that, “given that the BTM storage resource enables a PDR event by offsetting the customer’s load and permitting the load drop, the charging of that energy storage device *is* equivalent to a resale of energy and thus the original charging is not station power and should be subject to wholesale rates[Emphasis added]”. CESA sees the logic of the Staff Proposal for certain configurations and performance measurement arrangements, and so believes that permitted netting rules could apply for BTM energy storage resources where appropriate. While the specific metering requirements are yet to be determined, and not all MUA configurations have been contemplated or agreed upon, CESA believes that the Staff Proposal lays out a compelling case for allowing permitting netting of BTM energy storage resources in intervals of wholesale participation and dispatch. Generally, CESA believes that implementation details can and should be worked out after a Commission decision. That said, in this case and with a desire to avoid any jurisdictional disputes, it may make sense to delay implementation of this aspect of the proposed rules. These proposed rules remain important to consider, however, as there otherwise may be discriminatory rules applied to BTM energy storage resources. CESA anticipates that the Commission should allow such rules where sufficient metering or performance measurement configurations are in place.

**VIII. THE COMMISSION SHOULD ADD BULK STORAGE PROCUREMENT PATHWAYS AND ASSEMBLY BILL 33 STUDIES IN THE TRACK 2 SCOPE.**

The Proposed Decision declines to establish new eligibility of certain resource types, including controlled charging (“V1G”) and power-to-gas (“P2G”). The record for making this determination is sufficient and reasonable. However, the Proposed Decision declines to establish eligibility of large pumped storage, finding that it is more appropriately scoped in the IRP

proceeding, despite acknowledging the significant benefits these resources provide. Indeed, R.16-02-007 incorporated the issue of handling long-lead-time resources such as pumped storage into its scope<sup>10</sup> and will likely include 500 MW of pumped storage as one of the “Candidate Plans” in the Reference System Plan that will be developed by the Commission, resulting from informal working groups and concept papers from the Commission’s Energy Division.

While CESA is encouraged to see long-lead-time resources scoped into the IRP proceeding, there is a risk that the broad focus of the IRP (*e.g.*, to address the wide-ranging requirements of SB 350) and the intensive modeling efforts required (*e.g.*, multiple candidate plans, multiple sensitivities) will lead to long-lead-time resources not receiving sufficient consideration in modeling runs and in determining best procurement pathways. Already, the IRP may not appropriately model pumped storage in the 2017 Reference System Plan, which will look at 500 MW of pumped storage as a candidate plan, when in fact 1,300 MW or greater would more accurately reflect actual pumped storage project(s) currently in development.

Furthermore, as previously noted in comments,<sup>11</sup> bulk storage projects<sup>12</sup> may face unique procurement challenges due to the timelines and outlook duration of many standard long-term planning and procurement contracts with load-serving entities (“LSEs”). Important policy and implementation discussions are needed on how to procure and contract for such bulk storage projects, which may be large enough to warrant multi-LSE contracts or other considerations but may not be accounted for in the IRP proceeding. This is critically important as near-term grid

---

<sup>10</sup> *Joint Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge*, R.16-02-007, issued on May 26, 2016. p. 9.

<sup>11</sup> *Comments of the California Energy Storage Alliance on Assigned Commissioner and Assigned Administrative Law Judge’s Scoping Memo and Ruling*, filed on February 5, 2016, pp. 15-17; *Reply Comments of the California Energy Storage Alliance on Assigned Commissioner and Assigned Administrative Law Judge’s Scoping Memo and Ruling*, filed on February 19, 2016, pp. 14-15.

<sup>12</sup> CESA refers to “bulk storage as large-scale, long-duration energy storage resources larger than 50 MW, such as pumped hydro storage and compressed air energy storage.

flexibility challenges require these discussions to begin now to be able to deliver the bulk storage resources, if determined to be needed, in a timely manner. CESA therefore recommends that determining actual procurement pathways be scoped into this proceeding, as the IRP proceeding concurrently models the benefits of pumped storage resources in addressing grid needs.

Finally, AB 33 requires that the Commission study the benefits of long-duration bulk energy storage. CESA notes that the Commission's budget request to the Legislature involved some resources for AB 33. CESA recommends that Track 2 of this proceeding is the appropriate procedural venue to conduct these studies. Unlike the IRP, which looks exclusively at a single 500 MW pumped storage project, the AB 33 studies can test multiple sensitivities, scenarios, and candidate projects for long-duration bulk storage to quantify its potential benefits and costs to the state. Given the distinct focus of AB 33, CESA believes that this effort will be different from the IRP modeling efforts, which are limited due to time, resources, and complexity in terms of the sensitivities and scenarios that can be run. The outcomes of the AB 33 studies will be valuable inputs into future IRP cycles.

Overall, CESA is disappointed that the topics of bulk storage eligibility and procurement pathways were not discussed and/or deliberated at all in Track 2. As previously noted in comments, CESA believes a strong case can be made for bulk storage eligibility as a separate carve-out within revised procurement targets. Nevertheless, while the scope of the IRP now includes long-lead-time resources, the issues of bulk storage eligibility and procurement pathways will likely not be sufficiently covered or discussed in the IRP proceeding. For this reason, CESA believes that it is critically important for the Commission to scope these issues into this proceeding.



**IX. THE COMMISSION SHOULD LEAD THE WORKING GROUP ON COMMUNITY STORAGE ISSUES.**

The Proposed Decision directs Southern California Edison Company (“SCE”) to convene a working group to identify the issues that will be addressed to reduce barriers to the provision of community storage services to local customers via the installation of IFOM energy storage. CESA strongly supports community storage as a use case, but there are a number of unique barriers to deploying community storage projects, such as applicable rate structures, program incentive eligibility, interconnection requirements, financeability and/or reliable revenue streams, and customer risks (*e.g.*, lack of awareness, creditworthiness, and split incentive problems in multi-family units). To the extent that working group discussions on community storage affect AB 2868 implementation, CESA and its members will be heavily involved in discussions. However, CESA recommends that the Commission’s Energy Division staff lead the working group on discussions of community storage issues. CESA believes that a Commission-led working group would facilitate a more comprehensive discussion of the issues and ensure wide engagement of various stakeholders, including CESA.

**X. CONCLUSION.**

CESA appreciates the opportunity to submit these comments on the Proposed Decision and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,



Donald C. Liddell  
DOUGLASS & LIDDELL

Counsel for the  
**CALIFORNIA ENERGY STORAGE ALLIANCE**

Date: March 16, 2017