

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

Order Instituting Rulemaking Pursuant to	)	
Assembly Bill 2514 to Consider the Adoption of	)	R.10-12-007
Procurement Targets for Viable and Cost-	)	(Filed December 16, 2010)
Effective Energy Storage Systems.	)	

---

**REPLY COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E)**  
**ON THE ASSIGNED COMMISSIONER'S RULING PROPOSING STORAGE**  
**PROCUREMENT TARGETS AND MECHANISMS AND NOTICING ALL-PARTY**  
**MEETING**

JENNIFER TSAO SHIGEKAWA  
NANCY CHUNG ALLRED

Attorneys for  
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue  
Post Office Box 800  
Rosemead, California 91770  
Telephone: (626) 302-3102  
Facsimile: (626) 302-6962  
E-mail: nancy.allred@sce.com

Dated: **July 19, 2013**

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

Order Instituting Rulemaking Pursuant to	)	
Assembly Bill 2514 to Consider the Adoption of	)	R.10-12-007
Procurement Targets for Viable and Cost-	)	(Filed December 16, 2010)
Effective Energy Storage Systems.	)	

---

**REPLY COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E)  
ON THE ASSIGNED COMMISSIONER'S RULING PROPOSING STORAGE  
PROCUREMENT TARGETS AND MECHANISMS AND NOTICING ALL-PARTY  
MEETING**

**I.**

**INTRODUCTION**

Pursuant to the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting (“ACR”), issued June 10, 2013, Southern California Edison Company (“SCE”) respectfully submits to the California Public Utilities Commission (“Commission” or “CPUC”) its reply to parties’ comments on the ACR.

SCE appreciates the presence of the numerous and varied parties that have joined the proceeding and commented on the ACR; their participation indicates widespread interest in the development of energy storage in California. SCE encourages the Commission to ensure that customers remain a priority as the State endeavors to transform the market for energy storage. SCE looks forward to continuing its work with the Commission and other parties in this Rulemaking (“R.”) 10-12-007 to develop appropriate rules and policies that can guide the cost-effective, fair, and competitive procurement of energy storage in California.

## II.

### **EXECUTIVE SUMMARY**

SCE offers the following responses to parties' comments on the ACR.

- The Commission must ensure broad cost allocation of energy storage. Using the Cost Allocation Mechanism ("CAM") or another allocation mechanism based on similar principles is fair, legal, and feasible.
- Energy Service Providers ("ESPs"), Community Choice Aggregators ("CCAs"), and Community Aggregators ("CAs") should not be expected to procure grid reliability function storage.
- Increasing procurement targets by 3000 megawatts ("MW") or more as suggested by some parties will place an unsupportable cost burden on California customers.
- Given the emerging nature of most energy storage technologies, any procurement targets should be for solicited, and not installed, capacity.
- Procurement "sub-buckets" within the buckets already proposed in the ACR will drive up costs without a commensurate benefit.
- The Commission should safeguard regulatory flexibility and avoid adopting an overly prescriptive methodology for the procurement of storage.
- Utility-owned storage will participate in competitive processes but should not be forced to participate in Requests for Offers ("RFOs").
- The Commission should not impose any siting constraints for energy storage.
- The ACR correctly determines that energy storage should not be added to the Loading Order.

### III.

#### **THE COMMISSION MUST ENSURE BROAD COST ALLOCATION OF ENERGY STORAGE**

Multiple parties have commented on whether ESPs, CCAs, and CAs should have their own procurement targets, whether their customers should “pay their share”<sup>1</sup> of investor-owned utilities’ (“IOUs”) energy storage procurement executed on behalf of all customers, and whether the Commission-approved CAM is an appropriate way to allocate energy storage costs to Direct Access (“DA”), CCA, and CA customers.

Cost allocation of energy storage should follow the following principles: (1) Any market-function storage, whether it is interconnected at the transmission level or distribution level, should be treated like new generation resources from a procurement standpoint, and should be eligible for CAM-style cost allocation to all customers; (2) Any reliability-function storage should be considered either a transmission asset or a distribution asset, and its costs should likewise be recovered via transmission service rates or distribution service rates, and (3) all behind-the-meter storage should be obtained via customer programs similar to existing programs for energy efficiency, demand respond, California Solar Initiative, and the Self-Generation Incentive Program, with the costs recovered through distribution service rates.

SCE responds to parties’ comments below.

#### **A. ESPs, CCAs, and CAs Should Not Be Expected to Procure Grid Reliability Storage.**

Several parties expressed concerns about whether ESPs, CCAs, and CAs should procure storage that provides grid reliability functions. MEA notes that it is “not in the position to procure [Energy Storage] ES” in the transmission-connected use case.<sup>2</sup> Similarly, the Alliance for Retail Energy Markets, Sam’s West Inc., and Walmart Stores, Inc. (jointly, “Direct Access

---

<sup>1</sup> ACR at 15.

<sup>2</sup> Comments of the Marin Energy Authority on June 10, 2013 Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting (“MEA Comments”), July 3, 2013, at 8.

Parties”) note that “it is unlikely that ESPs could deploy Transmission or Distribution system sited energy storage.”<sup>3</sup> Shell Energy states that

ESPs and CCAs should not be required to purchase (or pay for) energy storage that provides a grid reliability function on the IOUs’ transmission and/or distribution systems. . . . To the extent that this Commission, the CAISO, or the IOUs determine that energy storage should be obtained to meet grid reliability, the IOUs will obtain storage that is strategically located. The costs of this “grid reliability” storage should be allocated to all customers (including direct access and CCA customers) in their transmission/distribution rates.<sup>4</sup>

SCE agrees with Shell Energy and others that such grid reliability function storage should be obtained by the IOUs and the costs should be allocated to all customers, including DA and CCA customers, via the transmission and/or distribution service rates.

Shell Energy further recognizes that ESP procurement of these resources prevents gaining optimal value out of energy storage: “the location of energy storage is critical... ESPs and CCA are not privy to information developed by the IOUs regarding the optimal location of energy storage to meet grid reliability.”<sup>5</sup> Of course, it is CAISO that develops the information on the optimal location of storage on the transmission system, but location is indeed critical for any energy storage because many of the benefits are directly tied to the location of the storage, which directly affects the benefits of an energy storage application.

SCE urges the Commission to ensure that transmission-connected storage or distribution-connected storage that is used for grid reliability is obtained by the IOUs. To the extent such storage is part of the utility’s distribution system assets and provides distribution reliability services, it should be owned and operated by the utility. As SCE noted in its Opening

---

<sup>3</sup> Comments of the Alliance for Retail Energy Markets, Sam’s West, Inc. and Walmart Stores, Inc. on Ruling Proposing Procurement Targets (“Direct Access Parties Comments”), July 3, 2013, at 9.

<sup>4</sup> Opening Comments of Shell Energy North America (US), L.P. on the Assigned Commissioner’s Straw Proposal (“Shell Energy Comments”), July 3, 2013, at 2.

<sup>5</sup> Shell Energy Comments at 3 (emphasis in original).

Comments, SCE has the responsibility and the right to procure such distribution service resources on behalf of all customers, bundled and unbundled, and the cost should likewise be allocated to all customers via its distribution rates.<sup>6</sup>

**B. Cost Allocation According to CAM Principles Is Fair and Appropriate.**

Energy storage can result in a multitude of societal benefits, including an enhanced ability to integrate intermittent generation resources. Because this societal benefit accrues to all customers, bundled and unbundled, a portion of the cost should be allocated to all customers, bundled and unbundled.

Regardless of the purely illustrative<sup>7</sup> results from the recent cost-effectiveness studies developed by the Commission's consultants, energy storage systems are not being developed on a "merchant" basis where they solely rely on market revenues. Instead, like new conventional generation resources, energy storage systems will likely require long-term financial commitments in order to be developed. The IOUs are likely to be the only entities that can make such commitments. However, to expect IOU bundled service customers to bear the entire cost of the long-term financial commitments is unfair and contrary to long-standing Commission policy that ensures that the cost is spread to all customers. Indeed, in its 2012 Long Term Procurement Plan ("LTPP") Local Capacity Requirements ("LCR") Track 1 decision, the Commission decided to allocate the costs of the 50 MW energy storage procurement target to all customers via the CAM.<sup>8</sup> This same policy should and must apply to all storage procurement targets adopted in this proceeding.

---

<sup>6</sup> Opening Comments of Southern California Edison Company (U 338-E) on the Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting ("SCE Comments"), July 3, 2013, at 9-10.

<sup>7</sup> Administrative Law Judge's Ruling Denying Request for Evidentiary Hearings, Feb. 28, 2013, at 2 (*available at* <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M049/K309/49309854.PDF>).

<sup>8</sup> Decision ("D.")13-02-015, Decision Authorizing Long-Term Procurement for Local Capacity Requirements, Feb. 12, 2013, at 131, 136.

The CAM is appropriate for allocating energy storage cost because the principles that underlie CAM can easily apply to energy storage. Generally, the costs to be allocated are calculated by subtracting the value of market revenues from the total cost of the resource. The remainder represents the cost to get new capacity built and integrated into the electricity grid. In other words, this cost represents the cost above and beyond the cost of simply procuring energy (and/or ancillary services (“A/S”)) through market transactions. SCE supports using either the CAM itself or a similar system based on CAM principles. As with procurement under the LTPP, utilities that procure market function storage to benefit the entire system should allocate those costs to all customers, unbundled and bundled.

**C. Cost Allocation According to CAM Principles Is Legal and Within the Commission’s Authority.**

Several parties question the legality of CAM allocation. MEA argues that such allocation is “legally questionable.”<sup>9</sup> Similarly, the Direct Access Parties claim that procurement of energy storage by IOUs “may not be a permitted use of CAM pursuant to statute”<sup>10</sup> because the ACR does not currently link the procurement targets to a system need. The Direct Access Parties further submit that Assembly Bill (“AB”) 2514 prevents the Commission from authorizing the IOUs to procure energy storage on behalf of other LSEs and subsequently allocating the costs.<sup>11</sup> Instead, they suggest that the statute requires the Commission to establish individual procurement targets, if any, for each individual load-serving entity.<sup>12</sup> Finally, the Direct Access Parties offer a methodology to calculate a “commensurate” procurement target for the total direct access load based on a *forecast* of the ESPs’ share of the coincident peak load for 2020, while arguing that allocating this target to individual ESPs “will require flexibility” because of the

---

<sup>9</sup> MEA Comments at 10.

<sup>10</sup> Direct Access Parties Comments at 5.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* at 5-6.

potential for load migration.<sup>13</sup> SCE disagrees with these arguments and proposals and urges the Commission to reject them.

While AB 2514 does not include an explicit provision for the Commission to authorize the IOUs to procure energy storage on behalf of the entire system, the statute does not preclude the Commission from doing so. In D.06-07-029, the Commission appropriately noted that its “foremost responsibility is to assure continued reliable service at reasonable cost,”<sup>14</sup> and given the challenges associated with procuring new capacity, adopted a CAM that “allows the advantages and costs of new generation to be shared by all benefiting customers in an IOU’s service territory.”<sup>15</sup> A similar principle must be applied to the procurement of energy storage. In implementing AB 2514, the Commission can establish aggregate targets on behalf of all load, bundled and unbundled, and then ask the IOUs to procure energy storage on behalf of all benefiting customers in their respective service territories while fairly allocating costs to those customers. The Commission has the authority to ensure that storage procured by utilities for the benefit of all customers should be allocated according to the principles of CAM.

**D. Cost Allocation According to CAM Principles is Feasible.**

MEA suggests that allocating cost using CAM principles would be “extremely complex,” and a “quagmire,”<sup>16</sup> while the Direct Access Parties state that it would result in “significant administrative difficulties” that must be further evaluated.<sup>17</sup> These concerns are misplaced. CAM has successfully allocated costs to benefiting customers for years. Moreover, the Commission in the LTPP proceeding recently noted that modifications to the CAM were

---

<sup>13</sup> *Id.* at 8.

<sup>14</sup> D.06-07-029, Opinion on New Generation and Long-Term Contract Proposals and Cost Allocation, July 20, 2006, at 3.

<sup>15</sup> *Id.* at 7.

<sup>16</sup> MEA Comments at 10.

<sup>17</sup> Direct Access Parties Comments at 6.



unnecessary while applying the CAM to the 50 MW storage procurement goal in the 2012 LTPP LCR Track 1 decision.<sup>18</sup>

#### IV.

#### **THE COMMISSION SHOULD NOT ARBITRARILY INCREASE THE TARGETS BY AN ADDITIONAL 3000 MW OR MORE**

Various parties, including the California Energy Storage Alliance (“CESA”) and Sierra Club California, advocate increasing the procurement targets by an additional 3,000 MW or more.<sup>19</sup> These proposals are without merit and should be rejected. The proposed targets of 1,325 MW already represent an enormously expensive investment by electricity customers in California. There is simply no analytical basis for adding an additional 3,000 MW of energy storage to the proposed targets. The Commission will have ample opportunity to develop a sound analytical basis in planning proceedings such as the LTPP to set storage goals under a variety of future scenarios. If and when an analytical foundation exists to revise the procurement targets, then the Commission can do so. Doing so now is premature and unnecessary. The proposed targets should be more than sufficient to achieve the Commission’s goal of market transformation. The program as currently proposed (and its multi-billion dollar cost) already demonstrates the California’s substantial commitment to energy storage.

As SCE discussed in its Opening Comments, SCE recommends regularly revisiting the storage procurement targets as the program moves forward and parties gain more knowledge about the costs of storage, the benefits of storage, and system needs.<sup>20</sup> SCE agrees with the ACR that storage procurement should become increasingly tied to need.<sup>21</sup> SCE does not support

---

<sup>18</sup> D.13-02-015 at 110.

<sup>19</sup> Comments of the California Energy Storage Alliance on Assigned Commissioner’s Ruling Proposing Procurement Targets and Mechanisms and Noticing All-Party Meeting (“CESA Comments”), July 3, 2013, at 3, 8; Opening Comments of Sierra Club California and the California Environmental Justice Alliance on Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms (“Sierra Club Comments”), July 3, 2013, at 2.

<sup>20</sup> SCE Opening Comments at 5.

<sup>21</sup> ACR at 15.

further increasing procurement targets without further study and understanding of the need for such an investment.

## V.

### **SOLICITED CAPACITY TARGETS ARE MORE APPROPRIATE FOR ENERGY STORAGE PROCUREMENT THAN INSTALLED CAPACITY TARGETS**

Several parties recommend adding “installation targets,” which would impose additional targets for actually-installed storage rather than simply solicited storage.<sup>22</sup> These proposals should be rejected. Storage is a new and emerging technology. Actual commercial operating experience with advanced energy storage technologies is quite limited and many promising applications are still at the demonstration stage. This limited deployment has not been without problems; both the viability and cost-effectiveness of storage remain evolving questions for many technologies and applications. While SCE is optimistic that storage can offer high-value solutions to many problems facing the grid, the storage market is still learning about the actual costs and benefits of energy storage as well as what does and does not work. It is more appropriate to set solicited capacity targets rather than arbitrary installed capacity targets in order to more accurately determine the success rate for this emerging technology class.

## VI.

### **PROCUREMENT “SUB-BUCKETS” WILL DRIVE UP COSTS WITHOUT A COMMENSURATE BENEFIT**

Beacon Power has proposed the addition of sub-buckets for both “ancillary services only” storage and “long duration” storage.<sup>23</sup> Beacon Power appears to mean regulation-only storage.<sup>24</sup> This proposal should be rejected because it proposes a carve-out for a specific technology class,

---

<sup>22</sup> See, e.g., CESA Comments at 3; Sierra Club Comments at 10.

<sup>23</sup> Comments of Beacon Power LLC on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting, July 3, 2013, at 4-5.

<sup>24</sup> Beacon Power refers to short duration storage in describing the “ancillary services only” concept. Providing spinning reserves would require scheduled charging, which would not be an ancillary service.

which runs counter to the principle of market transformation based on technology-neutral procurement.

The cost-effectiveness studies presented at workshops have shown that A/S regulation revenue is crucial to the overall value proposition for many different types of storage. It would be difficult to justify building transmission-connected storage that cannot earn regulation revenues, and such revenues have also been identified as an important end use for many distribution and customer-sited storage applications.<sup>25</sup> Among the 1,325 MW of energy storage proposed by the ACR, a significant quantity of regulation-capable storage will no doubt be deployed. It is possible that some storage will be deployed to exclusively provide regulation services, but many storage devices only become cost-effective when multiple benefits are combined. There is no reason to prohibit multiple benefits or applications for some quantity of storage.

Similarly, long-duration storage does not need its own sub-bucket. Most (but not all) storage technologies can be configured for a range of durations, short or long.<sup>26</sup>

As SCE stated in Opening Comments, utilities should have flexibility among all three buckets to focus investment to maximize ratepayer value, and the proposed buckets should be considered to be indicative guidance only.<sup>27</sup> Further sub-buckets are unnecessary, unjustified, and will create market power issues rather than broadening competition. Narrowly defined buckets, especially without reallocation, will drive up costs by forcing utilities to procure suboptimal storage configurations. Such carve-outs would only benefit the developers of the specified favored technologies and should be rejected.

---

<sup>25</sup> See Use Case documents developed in R.10-12-007 for details.

<sup>26</sup> Any storage device can be operated for an arbitrarily long duration by discharging the device at less than full capacity. Should utilities find that long-duration storage offers more value than short duration storage, they should have the option to procure long-term storage. There is no reason to require a device be configured to increase its duration beyond what a utility has found to offer the greatest ratepayer value.

<sup>27</sup> SCE Opening Comments at 14.

## VII.

### **THE COMMISSION SHOULD NOT ADOPT AN OVERLY PRESCRIPTIVE METHODOLOGY FOR STORAGE PROCUREMENT**

Several parties propose detailed requirements and methods to be incorporated into the utility procurement and valuation process. The Commission should not entertain these proposals. SCE is committed to properly valuing the costs and benefits of energy storage, but the proposed methods are overly prescriptive, infeasible, and inappropriate. The Commission should not create artificial storage valuation criteria and instead must let a competitive market develop for various storage technologies (similar to renewable technologies).

For example, CESA proposes unworkable concepts such as Commission-determined fixed values for various storage benefits or Commission-approved probability distributions for the valuation process.<sup>28</sup> It is inappropriate to proclaim a universally applicable value for any given storage use, contrary to CESA and Clean Coalition's assertions. AB 2514 requires that any storage procured must be "cost-effective."<sup>29</sup> Utilities may place different values on the various end uses that storage provides. Indeed, several parties, including CESA, oppose auctions based on the Renewable Auction Mechanism ("RAM") because the diverse applications and benefits of energy storage require significant flexibility.<sup>30</sup> Similarly, just as it is inappropriate to require RAM-based auctions for all storage, it would be equally inappropriate to use a different but similarly restrictive set of methodological requirements for procurement. Whether soliciting for conventional generation or alternative resources, utilities are in the best position to understand their needs as well as the value of various attributes and design their own solicitations and valuation methodology accordingly.

---

<sup>28</sup> CESA Comments at 10-11.

<sup>29</sup> AB 2514 (Stats. 2010), codified at Pub. Util. Code § 2835 et seq. See Pub. Util. Code §§ 2836.6, 2836(b)(1).

<sup>30</sup> See, e.g., CESA Comments at 9; Sierra Club Comments at 22.

Clean Coalition requests that utilities make their valuation information public.<sup>31</sup> This proposal should be rejected. Utilities have internal models for valuing offers and ultimately selecting winning projects. This process is described in bidders' conferences in detail with full question and answer sessions, but the specific metrics are held as confidential to bidders. The full valuation methodology and metrics are scrutinized by each utility's Commission-assigned Independent Evaluator and Procurement Review Group, which includes both CPUC staff as well as independent organizations, all of whom sign strict nondisclosure agreements. It is not however, a public process. Providing valuation information to competitive developers invites uncompetitive bids and "gaming" of the solicitation. This is recognized in theory as well as in practice.<sup>32</sup> Indeed, the necessity for certain information to remain confidential has been considered in depth by the Commission in R.05-06-040 and the many confidentiality decisions governing utility procurement, such as D.06-06-066, which appropriately recognized that "confidentiality protections are essential to avoid a repetition of electricity market manipulation."<sup>33</sup> Even in solicitations for conventional generation, there are multiple benefit streams to value, including energy, capacity, ancillary services, and siting considerations. Historically, these solicitations have functioned well, in part because the solicitation and valuation process applies the appropriate level of confidentiality protection. Customers benefit from a well-functioning competitive market. There is no reason to revisit the confidentiality rules in this proceeding.

Rather than adopt these proposals, the Commission should direct each utility to develop an appropriate solicitation methodology or methodologies. SCE agrees with the general

---

<sup>31</sup> Clean Coalition Opening Comments on Assigned Commissioner Ruling ("Clean Coalition Comments"), July 3, 2013, at 3.

<sup>32</sup> For example, in the BRPU process, IOUs were required to publicize valuation information prior to the solicitation. Competitive bidders used this information to game the solicitation, resulting in uncompetitive bids that were nonetheless selected through the valuation process. See Rajnish Kamat & Shmuel S. Oren, *Rational Buyer Meets Rational Seller: Reserves Market Equilibria under Alternative Auction Designs*, *Journal of Regulatory Economics* 21:3 247, 251 (2002); 70 FERC ¶ 61,215 (1995).

<sup>33</sup> D.06-06-066, Interim Opinion Implementing Senate Bill No. 1488, Relating to Confidentiality of Electric Procurement Data Submitted to the Commission, July 5, 2006, at 4.

consensus among parties that storage should be competitively priced. Arbitrary valuation parameters do not reflect true costs and benefits and would instead guarantee high levels of subsidies. This would be a recipe for long-term disaster; the true proof should be in competitive valuation and selection. Each utility has different system needs, and should be given the flexibility to design a procurement program that will generate offers that meet its needs.

## VIII.

### **UTILITY-OWNED STORAGE SHOULD BE COMPETITIVELY PRICED, BUT NOT NECESSARILY THROUGH RFOS**

Clean Coalition suggests that utility-owned storage should be required to participate in an RFO process similar to procurement of third-party storage.<sup>34</sup> SCE disagrees. Just as utilities must have flexibility to develop appropriate methodologies for competitive procurement of third-party storage, it is vital for utilities to have flexibility to propose utility-owned storage when it is in the best interests of the customers. In doing so, utilities should not be required to first participate in an RFO process. As SCE has repeatedly noted in many CPUC proceedings where the issue of comparing utility-owned assets to third-party owned assets has been raised, the risk-versus-reward equation is dramatically different for third-party storage developer under contract with a utility versus a utility-owned storage device owned and operated at cost for the sole benefit of customers.<sup>35</sup>

Utility-owned storage, if proposed and approved by the Commission, might be developed in many different ways. For example, in some cases utilities might develop a solicitation for a fully integrated “turnkey” system; in other cases a utility may choose to develop a solicitation for individual components, such as batteries and inverters. In all cases, utilities will procure storage equipment via a competitive process, RFO or not.

---

<sup>34</sup> Clean Coalition Comments at 4.

<sup>35</sup> See, e.g., SCE Opening Comments at 11.

## IX.

### **THE COMMISSION SHOULD NOT IMPOSE ANY SITING DETERMINATIONS OR CONSTRAINTS FOR ENERGY STORAGE**

Sierra Club California and the California Environmental Justice Alliance (“CEJA”) have proposed that the Commission should impose environmental justice criteria for siting energy storage.<sup>36</sup> Environmental justice is an important concern in siting commercial and industrial facilities that affect surrounding communities, including natural gas generators. However, imposing environmental justice constraints at this point will run counter to broad markets and, likely, will not actually accomplish the envisioned environmental justice goals.

As many parties have noted, most storage devices do not have any direct air emissions. Natural gas-fired units are typically marginal resources in California (that will be charging storage devices most of the time); they are generally dispatched according to their market bids. Adding storage devices into California’s electrical grid will likely affect the awards and dispatches to natural gas-fired generation. Specifically, inefficient fossil units should be operated less frequently because they would be displaced by a storage device that was previously charged by a more efficient generator. However, this beneficial effect is independent of the location of the storage device and is a function of least-cost dispatch combined with the location of the gas-fired generation that is charging the storage device, and not the location of the storage device itself.

SCE supports the Commission’s goal of incorporating environmental justice concerns into project evaluations. SCE further recognizes that any commercial facility may have an impact on the surrounding communities, even facilities that have no emissions. However, given the nature of the wholesale energy markets, the Commission should recognize the limited impact

---

<sup>36</sup> Sierra Club Comments at 20-22. Sierra Club and CEJA also append over 500 pages of various energy storage studies as Attachment 1 to their comments. Parties to this proceeding have not reviewed or engaged with these studies in any significant capacity, and thus the studies should not be relied upon for any findings or conclusions.

on local air emissions from the siting decision of any given storage device. If the Commission truly wishes to develop a vibrant market for energy storage, it is imperative to avoid creating unnecessary road blocks in the storage developers' ability to propose innovative and cost-effective storage in as many viable locations as possible.

## X.

### **ENERGY STORAGE SHOULD NOT BE ADDED TO THE LOADING ORDER**

Some parties, including CESA and Nevada Hydro Company, seek to reopen the debate about adding energy storage to the California Loading Order.<sup>37</sup> The ACR correctly concludes that energy storage should not be added to the Loading Order.<sup>38</sup> This conclusion is consistent with the Commission's denial in D.13-02-015 of Megawatt Storage Farm's motion to add storage to the Loading Order in the LTPP proceeding.<sup>39</sup> As the Commission noted in D.13-02-015, "the Loading Order was developed in a multi-agency process and is, in part, established in statute" and the Commission declined to "unilaterally reconsider the multi-agency Energy Action Plan" or statute.<sup>40</sup> SCE agrees and refers the Commission to its earlier comments on the topic.<sup>41</sup>

Moreover, storage is *not one single thing*. As recognized throughout this proceeding, storage offers numerous end uses that provide numerous benefits.<sup>42</sup> The preferred resources in the Loading Order accomplish state policy goals through different means. For example, renewable resources reduce air emissions by displacing fossil generation. Demand response

---

<sup>37</sup> See, e.g., CESA Comments at 4-5; Comments of The Nevada Hydro Company Comments on Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms, July 3, 2013, at 7.

<sup>38</sup> ACR at 21.

<sup>39</sup> D.13-02-015 at 116-117.

<sup>40</sup> *Id.*

<sup>41</sup> See Comments of Southern California Edison Company (U 338-E) on the Energy Storage Phase 2 Interim Staff Report and Energy Storage Workshops, R. 10-12-007, Feb. 4 2013; Comments of Southern California Edison Company (U 338-E) on the Joint LTPP/Storage Workshop, Held September 7, 2012, R.12-03-014 and R.10-12-007, Oct. 9 2012; Southern California Edison Company's (U 338-E) Response to Megawatt Storage Farms - Motion Regarding the Loading Order and Storage, R.12-03-014, Oct. 22, 2012.

<sup>42</sup> See, e.g., D.12-08-016, Decision Adopting Proposed Framework for Analyzing Energy Storage Needs (Phase 1 Decision), Aug. 2, 2012, at 23.



resources reduce the need for investment in new capacity and increase system reliability by shifting peak demand or simply reducing total demand. Energy efficiency programs reduce total demand and may also accomplish some peak reduction benefits. Storage devices can help to facilitate many of these objectives (except reducing total demand). Existing programs such as the Renewables Portfolio Standard procurement process and the demand response programs already appropriately consider storage. It is improper to add storage, which is a broad technology class, to the preferred resources in the Loading Order.

## XI.

### CONCLUSION

SCE appreciates the opportunity to provide reply comments to parties' opening comments. SCE reiterates the importance of developing rules for the cost-effective and fair procurement of energy storage that can protect customers while working towards market transformation.

Respectfully submitted,

JENNIFER TSAO SHIGEKAWA  
NANCY CHUNG ALLRED

*/s/ Nancy Chung Allred*

---

By: Nancy Chung Allred

Attorneys for  
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue  
Post Office Box 800  
Rosemead, California 91770  
Telephone: (626) 302-3102  
Facsimile: (626) 302-6962  
E-mail: nancy.allred@sce.com

July 19, 2013