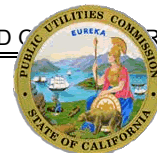


## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298

**FILED**09/25/18  
08:00 AM

September 25, 2018

Agenda ID #16876  
Ratesetting

TO PARTIES OF RECORD IN APPLICATION 18-02-016 ET AL.:

This is the proposed decision of Administrative Law Judge Stevens. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's October 25, 2018, Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, ex parte communications are prohibited pursuant to Rule 8.3(c)(4)(B).

/s/ ANNE E. SIMONAnne E. Simon  
Chief Administrative Law Judge

AES:jt2

Attachment

Decision PROPOSED DECISION OF ALJ STEVENS (Mailed 9/25/2018)

**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

And Related Matters.

Application 18-03-001

Application 18-03-002

**DECISION APPROVING AB 2514 ENERGY STORAGE PROCUREMENT FRAMEWORK FOR THE 2018 BIENNIAL PROCUREMENT PERIOD**

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**DECISION APPROVING AB 2514 ENERGY STORAGE PROCUREMENT FRAMEWORK FOR THE 2018 BIENNIAL PROCUREMENT PERIOD****Summary**

This decision approves the Assembly Bill 2514 Energy Storage Procurement Plan components of the applications of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company.

**1. Background**

On December 16, 2010, the Commission opened Rulemaking (R.) 10-12-007 to implement the provisions of Assembly Bill (AB) 2514 (Stats. 2010, Ch. 469). AB 2514 directed the Commission to determine appropriate targets, if any, for each Load-Serving Entity as defined by Pub. Util. Code § 380(j) to procure viable and cost-effective energy storage systems and set dates for any targets deemed appropriate to be achieved.

Consistent with AB 2514,<sup>1</sup> the Commission's energy storage procurement program is guided by three purposes:

- 1) Optimization of the grid, including peak reduction, contribution to reliability needs, or deferment of transmission and distribution upgrade investments;
- 2) The integration of renewable energy; and
- 3) The reduction of greenhouse gas emissions to 80 percent below 1990 levels by 2050, per California's goals.

In response to this state mandate, the Commission adopted Decision (D.) 13-10-040, its "Decision Adopting Energy Storage Procurement Framework

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<sup>1</sup> See Pub. Util. Code § 2835(a)(3)i.

and Design Program.” D.13-10-040 directs Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) to file on or before March 1, 2014, and biennially thereafter through 2020, an application for approval of a plan to procure energy storage resources to address the targets and policies of the Commission’s Energy Storage Procurement Framework and Design Program. The energy storage framework and procurement applications for the 2014 biennial period were subsequently approved in D.14-10-045. The energy storage framework and procurement applications for the 2016 biennial period were subsequently approved in D.16-09-007. The instant applications are for approval of the 2018 biennial period framework.

SDG&E states in its application that it has already exceeded its 2018 AB 2514 procurement target.<sup>2</sup> PG&E proposes in its application to procure up to 160 Megawatts (MW) to meet its 2018 AB 2514 procurement target.<sup>3</sup> SCE states in its testimony that it has already exceeded its 2018 AB 2514 procurement target.<sup>4</sup>

Regarding SDG&E’s Application, The Office of Ratepayer Advocates (ORA),<sup>5</sup> California Energy Storage Alliance (CESA); The Alliance for Retail Energy Markets/Direct Access Customer Coalition (AReM/DACC); LS Power Development, LLC; and the California Solar and Storage Association filed and

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<sup>2</sup> Exhibit SDGE-04 at 1.

<sup>3</sup> Exhibit PGE-01 at 1-2.

<sup>4</sup> Exhibit SCE-01B at 5.

<sup>5</sup> The Office of Ratepayer Advocates was renamed the Public Advocates Office of the Public Utilities Commission pursuant to Senate Bill (SB) 854, which the Governor approved on June 27, 2018.

served protests on April 6, 2018. Sunrun, Inc./California Housing Partnership Corporation/Grid Alternatives; Tesla, Inc.; and Coalition of California Utility Employees filed and served responses to SDG&E's Application on April 6, 2018. SDG&E filed and served a reply to the protests and responses on April 16, 2018.

Regarding PG&E's Application, Silicon Valley Clean Energy/Sonoma Clean Power/Marin Clean Energy/Peninsula Clean Energy, CESA, AReM/DACC, ORA, and the California Solar and Storage Association filed and served protests on April 6, 2018. Tesla, Inc. and Coalition of California Utility Employees filed and served responses to PG&E's Application on April 6, 2018. PG&E filed and served a reply to the protests and responses on April 16, 2018.

Regarding SCE's Application, CESA, ORA, AReM/DACC, and California Solar and Storage Association filed and served protests on April 6, 2018. California Choice Energy Authority; Tesla, Inc.; Sunrun, Inc./California Housing Partnership Corporation/Grid Alternatives; and the Coalition of California Utility Employees filed and served responses to SCE's Application on April 6, 2018. SCE filed and served a reply to the protests and responses on April 16, 2018.

The Commission held a prehearing conference (PHC) on May 1, 2018 to determine parties, discuss the scope, the schedule, and other procedural matters. In the scoping ruling filed and served on May 24, 2018, the assigned Commissioner consolidated the three Applications and bifurcated the issues into two tracks, one that addresses AB 2514 issues and a second that addresses AB 2868 issues. This decision addresses the AB 2514 issues in the Applications.

On April 24, 2018, Administrative Law Judge (ALJ) Stevens granted party status to The Utility Reform Network. On June 14, ALJ Stevens granted party status to Small Business Utility Advocates. On August 10, 2018, ALJ Stevens

granted party status to Natural Resources Defense Council. On August 14, 2018, ALJ Stevens granted party status to Megawatt Storage Farms, Inc. and Hydrostor Inc. On September 7, 2018, ALJ Stevens granted party status to Southern California Gas Company; ESS Tech, Inc.; National Fuel Cell Research Center; San Diego County Water Authority; and City of San Diego. On September 13, 2018, ALJ Stevens granted party status to California Hydrogen Business Council.

Pertaining to AB 2514 issues, SDG&E, PG&E, SCE, and ORA filed and served opening briefs on July 11, 2018. PG&E, SCE, and ORA filed and served reply briefs on July 20, 2018.

On August 8, 2018, the assigned Commissioner and assigned ALJ issued a ruling requesting comments on issues pertaining to energy storage technology diversity. On August 24, 2018 ESS Tech, Inc. served and filed comments in response to the August 8, 2018 ruling. On August 28, 2018 CESA; Southern California Gas Company; Tesla, Inc; SCE; ORA; Hydrostor; LS Power Development LLC; MegaWatt Storage Farms, Inc.; PG&E; Small Business Utility Advocates; SDG&E; and the National Fuel Cell Research Center served and filed comments in response to the August 8, 2018 ruling. On September 5, 2018, The Utility Reform Network; Tesla, Inc; SCE; PG&E; Megawatt Storage Farms, Inc.; California Hydrogen Business Council; CESA; and Public Advocates Office of the Public Utilities Commission served and filed reply comments.

## **2. Issues Before the Commission**

In protests and discussion at the PHC, numerous potential issues were raised. The following issues were identified for the scope of this proceeding:

- Have the utilities correctly counted existing eligible energy storage credits toward their 2018 energy storage procurement targets as directed in D.13-10-040 and D.16-01-032? Is it



appropriate for SCE to count procurement pursuant to SB 801 towards AB 2514 procurement targets?

- Do the proposed AB 2514 procurement plans and request for offers frameworks comply with Decision (D.) 13-10-040 and the relevant provisions of previous Commission energy storage decisions?
- Do the proposed AB 2514 procurement plans comply with the multiple use-case application (MUA)?<sup>6</sup>
- Should PG&E's deadline to request deferment of AB 2514 storage targets be postponed until PG&E files its application for approval of its 2018 Energy Storage Request for Offers procurement?
- Should technology diversity be prioritized in the solicitations?
- Are the terms and conditions for the provision of energy storage services in the utilities proposed AB 2514 Request for Offers protocols reasonable and in the public interest?
- Are the safety requirements in the utilities' 2018 Energy Storage Request for Offers protocols reasonable and will the utilities' proposed procurement plans ensure safe and reliable delivery of energy to customers?
- Should SDG&E's, PG&E's and SCE's proposed procurement plans for the 2018 Biennial Solicitation be adopted?

Cost recovery will not be revisited for the AB 2514 in this decision but will follow the framework already adopted by prior decisions D.14-10-045 and D.16-09-004. The assignment of specific cost recovery approaches for contracts that count towards the 2018 solicitation will be considered in proceedings where approval of such contracts is addressed, not in the context of the 2018 plans.

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<sup>6</sup> In Appendix A of D.18-01-003, the Commission adopted eleven rules to govern evaluation of multiple-use energy storage applications.

**3. Discussion and Analysis****3.1. Overview of the Applications****3.1.1. SDG&E**

SDG&E is seeking approval of its AB 2514 procurement update. As SDG&E is already on track to meet its 2018 AB 2514 target, SDG&E is not proposing to conduct further procurement within its 2018 solicitation cycle toward its AB 2514 target.<sup>7</sup>

**3.1.2. PG&E**

PG&E is seeking approval of its AB 2514 procurement update, which includes a request for authorization of an energy storage solicitation cycle in furtherance of its AB 2514 goal. PG&E is requesting authorization to release a solicitation for up to 160 MW to meet its 2018 AB 2514 target.<sup>8</sup>

As PG&E noted in its June 14, 2018 motion, on May 14, 2018, PG&E and Golden Hills Energy Storage, LLC, a subsidiary of NextEra Energy Resources, LLC, agreed to terminate the Golden Hills Energy Storage project. The project was approved for 30 MW of energy storage capacity. PG&E requests to increase its 2018 energy storage target beyond its requested 160 MW in this application. PG&E modified its request to make up any shortfall in meeting its earlier energy storage targets in addition to fulfilling its 2018 energy storage procurement target.

Additionally, PG&E is requesting permission to defer up to 80 percent of this solicitation cycle procurement target to a future solicitation year if the Commission authorized Request for Offers and PG&E's other storage solicitation

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<sup>7</sup> Exhibit SDGE-01 at 4.

<sup>8</sup> Exhibit PGE-01 at 1-2.

activities result in an insufficient amount of viable and cost-effective energy storage offers for PG&E to meet is 160 MW target.

PG&E notes in its opening brief on AB 2514 issues that since filing its prepared testimony in this application, PG&E filed Advice Letter 5322-E on June 29, 2018. That Advice Letter requests approval of incremental energy storage procurement agreements, including three third-party owned energy storage projects and one utility-owned project, that would total 567.5 MW of new capacity. Three of these projects would be interconnected at the transmission domain and one is for storage installed behind-the-meter in the customer domain. If approved as proposed, these agreements would materially change PG&E's outstanding AB 2514 procurement requirements. If the Commission approves Advice Letter 5322-E prior to the execution of any agreements arising from PG&E's 2018 energy storage request for offers, PG&E proposes that it serve an update via a Tier 1 Advice Letter on this proceeding regarding how such approval impacts its 2018 energy storage requests for offers targets and procurement strategy.

### **3.1.3. SCE**

SCE is requesting authorization to procure energy storage towards its AB 2514 energy storage target through a solicitation that responds to its mandate from SB 801 to procure a minimum of 20 MW of energy storage.

On August 15, 2018, SCE amended its direct testimony to indicate that the 6.5 MW deficit for its 2018 AB 2514 target claimed in its Application no longer existed due to the Commission approving energy storage procurement in the

Preferred Resources Pilot 2.<sup>9</sup> The amended testimony indicates, “SCE’s total eligible procurement through the 2018 procurement cycle is 423.58 MW, which is 53.58 MW above of the 2018 cumulative target.”<sup>10</sup>

**3.2. Have the Utilities Correctly Counted Existing Eligible Energy Storage Credits Toward Their 2018 Energy Storage Procurement Targets as Directed in D.13-10-040 and D.16-01-032? Is it Appropriate for SCE to Count Procurement Pursuant to SB 801 Towards AB 2514 Procurement Targets?**

**3.2.1. SDG&E**

D.13-10-040 set a target for SDG&E to procure 165 MW of energy storage by the end of 2021, installed no later than year-end 2024. The Commission segmented the procurement into biennial cycles (2014, 2016, 2018, and 2020) and three domains (transmission, distribution, and customer). For 2018, SDG&E’s cumulative energy storage targets<sup>11</sup> are 47 MW of transmission domain storage, 32 MW of distribution domain storage, and 16 MW of customer domain storage.<sup>12</sup>

SDG&E is authorized, or has pending authorization, to count the following energy storage projects towards its AB 2514 target.<sup>13</sup>

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<sup>9</sup> D.18-07-023.

<sup>10</sup> Exhibit SCE-01B at 5.

<sup>11</sup> 2018 cumulative energy storage targets include years 2014-2018.

<sup>12</sup> D.13-10-040 Appendix A at 2.

<sup>13</sup> This table is sourced from Application of A.18-02-016 at Attachment 2, SDG&E Testimony at DB-6, and D.18-05-024.

Domain	Project	Capacity
Transmission	Lake Hodges Pumped Hydro	40.00 MW
Transmission	Fallbrook Battery Energy Storage System	8.85 MW
Transmission	Miramar Battery Energy Storage System	30.00 MW
Distribution	Borrego Springs Microgrid	0.57 MW
Distribution	SDG&E's 2012 GRC Energy Storage Program	5.58 MW
Distribution	Expedited Energy Storage Projects (Resolution E-4798)	37.5 MW
Distribution	Powin Energy Track IV	6.50 MW
Distribution	Enel Green Power North America Track IV	3.00 MW
Distribution	Advanced Microgrid Solutions Track IV	4.00 MW
Customer	Approved Interconnections through 2016	16.96 MW
Customer	New Interconnections since 2016	6.95 MW

SDG&E's progress towards its targets through 2018, as set in D.13-10-040, by domain is as follows.

	Transmission	Distribution	Customer
Cumulative 2018 Target	47 MW	32 MW	16 MW
Progress	78.85 MW	57.15 MW	23.91 MW
Remaining	31.85 MW over	25.15 MW over	7.91 MW over

SDG&E's planned and existing energy storage consists of 78.85 MW in the transmission connected domain, 57.15 MW in the distribution-connected domain, and 23.91 MW in customer-connected domain, for a total of 159.91 MW of eligible procurement.

CESA raised concern in its protest to SDG&E's Application suggesting that SDG&E is not complying with the D.13-10-040 determination that utility ownership of energy storage projects should not exceed 50 percent of all energy

storage procured across the three grid domains. SDG&E responds in its reply to protests that CESA inaccurately characterizes SDG&E's procured Lake Hodges 40 MW project in the transmission domain as utility-owned when it is in fact third-party owned. Understanding this, it is clear that SDG&E is not requesting to fulfill more than 50 percent of its total AB 2514 target (82.5 MW), across the three grid domains, with utility owned storage.

SDG&E asserts it has correctly counted existing energy storage credits towards the 2018 procurement targets.<sup>14</sup> We find that SDG&E has correctly counted existing energy storage credits towards the 2018 procurement targets.

### **3.2.2. PG&E**

D.13-10-040 set a target for PG&E to procure 580 MW of energy storage by the end of 2021, installed no later than year-end 2024. The Commission segmented the procurement into biennial cycles (2014, 2016, 2018, and 2020) and three domains (transmission, distribution, and customer). For 2018, PG&E's cumulative energy storage targets are 200 MW of transmission domain storage, 120 MW of distribution domain storage, and 50 MW of customer domain storage.<sup>15</sup>

PG&E is authorized, or has pending authorization, to count the following energy storage projects towards its AB 2514 target.<sup>16</sup>

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<sup>14</sup> SDG&E Opening Brief on 2514 Issues at 8.

<sup>15</sup> D.13-10-040 at Appendix A, p. 2.

<sup>16</sup> Exhibit PGE-01 at 2-Appendix A.

Domain	Project	Capacity
Transmission	Cascade Energy Storage	25 MW
Transmission	Kingston Energy Storage	50 MW
Transmission	Sierra Energy Storage	10 MW
Transmission	Diablo Energy Storage	50 MW
Distribution	Yerba Buena Battery Energy Storage System	4 MW
Distribution	Vaca-Dixon Battery Energy Storage System	2 MW
Distribution	Browns Valley Energy Storage	0.50 MW
Distribution	Henrietta D Energy Storage	10 MW
Distribution	Llagas Energy Storage	20 MW
Customer	Self Generation Incentive Program (SGIP)	21.43 MW
Customer	Calstor, LLC Behind the Meter	10 MW

PG&E's progress towards its targets through 2018, as set in D.13-10-040, by domain is as follows:

	Transmission	Distribution	Customer
Target	200 MW	120 MW	50 MW
Progress	135 MW	36.5 MW	31.43 MW
Remaining	65 MW	83.5 MW	18.57 MW

PG&E's planned and existing energy storage consists of 135 MW in the transmission connected domain, 36.5 MW in the distribution-connected domain, and 31.43 MW in customer-connected domain, for a total of 202.93 MW of eligible procurement.

As PG&E noted in its June 14, 2018 motion, on May 14, 2018, PG&E and Golden Hills Energy Storage, LLC, a subsidiary of NextEra Energy Resources, LLC, agreed to terminate the Golden Hills Energy Storage project. The project was approved for 30 MW of energy storage capacity. PG&E requests to increase

its 2018 energy storage target beyond its requested 160 MW in this application. PG&E modified its request to make up any shortfall in meeting its earlier energy storage targets in addition to fulfilling its 2018 energy storage procurement target.

PG&E asserts it has correctly counted existing energy storage credits towards the 2018 procurement targets. No party has contested this assertion. We find that PG&E has correctly counted existing energy storage credits towards the 2018 procurement targets. Considering the termination of the Golden Hills Energy Storage, LLC project, PG&E has a residual procurement need of 167.07 MW of eligible energy storage procurement to meet its 2018 cumulative AB 2514 energy storage target.

### **3.2.3. SCE**

D.13-10-040 set a target for SCE to procure 580 MW of energy storage by the end of 2021, installed no later than year-end 2024. The Commission segmented the procurement into biennial cycles (2014, 2016, 2018, and 2020) and three domains (transmission, distribution, and customer). For 2018, PG&E's cumulative energy storage targets are 200 MW of transmission domain storage, 120 MW of distribution domain storage, and 50 MW of customer domain storage.<sup>17</sup>

SCE is authorized, or has pending authorization, to count the following energy storage projects towards its AB 2514 target.

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<sup>17</sup> D.13-10-040 Appendix A at 2.



Domain	Project	Capacity
Transmission	Grapeland EGT	10 MW
Transmission	Center EGT	10 MW
Transmission	AES Alamitos ES	100 MW
Distribution	Distribution Energy Storage Integration ("DESI") 1	2.4 MW
Distribution	Distribution Energy Storage Integration ("DESI") 2	1.4 MW
Distribution	Mercury 4	2.8 MW
Distribution	Pomona Battery Storage (AltaGas)	20 MW
Distribution	Grand Johanna BESS (Powin)	2 MW
Distribution	Mira Loma BESS A	10 MW
Distribution	Mira Loma BESS B	10 MW
Distribution	Convergent OCES 1-3	35 MW
Distribution	Powin SBI, LLC	10 MW
Distribution	Valencia Energy Storage	10 MW
Distribution	HEJF1 & HEJF2	15 MW
Distribution	W Power – Stanton – 1	1.3 MW
Distribution	V2G-LA AFB	0.65 MW
Distribution	Irvine Smart Grid-Containerized Energy Storage	2 MW
Distribution	Large Storage Test	2 MW
Distribution	Tehachapi Storage Project	8 MW
Distribution	Irvine Smart Grid- Community Energy Storage	0.03 MW
Distribution	Catalina Island Battery Storage	1 MW
Customer	HEBT WLA1 & WLA2 DRES	40 MW
Customer	HEBT Irvine1 & Irvine2 DRES	10 MW
Customer	Ice Bear 431055, 431058, 431061, 431064, 431067, 431070, 431145, 431148, 431151, 431154, 431157, 431160, 431163 & 431166	21.76 MW
Customer	Stem Energy DRES – 402039 & 402040	85 MW

Customer	AMS CTEC 1-5	40 MW
Customer	SEF1	5 MW
Customer	Irvine Smart Grid- Residential ES Unit	0.06 MW
Customer	Discovery Science Center	0.1 MW
Customer	SGIP	96 MW
Customer	SGIP 2014	10.8 MW
Customer	Permanent Load Shifting	5.5 MW

SCE's progress towards its targets through 2018, as set in D.13-10-040, by domain is as follows:

	Transmission	Distribution	Customer
Target Through 2018	200 MW	120 MW	50 MW
Progress	120 MW	133.58 MW	314.22 MW
Remaining	80 MW	13.58 MW over	264.22 MW over

SCE's planned and existing energy storage consists of 120 MW in the transmission connected domain, 133.58 MW in the distribution-connected domain, and 314.22 MW in customer-connected domain, for a total of 567.8 MW. The flexibility rules adopted in R.15-03-011 allow SCE to apply up to 85 MW of customer-connected storage toward meeting the targets in the transmission and distribution domains. After applying this flexibility provision, SCE's total eligible procurement through the 2018 procurement cycle is 423.58 MW, which is 53.58 MW above the 2018 cumulative target.

SCE asserts it has correctly counted existing energy storage towards the 2018 procurement targets. No party has contested this assertion. We find that SCE has correctly counted existing energy storage towards the 2018 procurement targets.

**3.2.3.1. Senate Bill 801**

Senate Bill 801 requires the Commission to order an electrical corporation serving the Los Angeles Basin to hold a competitive solicitation to “deploy a minimum aggregate total of 20 MW of cost-effective energy storage solutions to help address the Los Angeles Basin’s electrical system operational limitations resulting from reduced gas deliverability from the Aliso Canyon natural gas storage facility”<sup>18</sup>

On February 27, 2018, SCE received a letter from the Director of the Commission’s Energy Division directing SCE to prepare and submit an Advice Letter as soon as practicable that can be addressed through the Energy Division’s Resolution process requesting authorization to procure the minimum aggregate 20 MW as required by SB 801.<sup>19</sup>

SCE contends that the in-front-of-the-meter procurement from the SB 801 Solicitation will count towards SCE’s energy storage targets in accordance with D.13-10-040, which provides that energy storage projects procured through other Commission proceedings may count towards the investor-owned utilities’(IOU) procurement targets once approved by the Commission.<sup>20</sup>

ORA objected to SCE counting all SB 801 procurement toward SCE’s AB 2514 targets given that the SB 801 procurement will exceed SCE’s 2018 AB 2514 procurement target. ORA does not object to SCE’s plan to satisfy its

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<sup>18</sup> Cal. Pub. Util. Code § 2836.7 (b).

<sup>19</sup> Exhibit SCE-01B at 24.

<sup>20</sup> Exhibit SCE-01B at 25.

residual 6.5 MW<sup>21</sup> need through its SB 801 procurement obligation,<sup>22</sup> and concedes that there is no legal prohibition on SCE counting energy storage procurement pursuant to SB 801 toward its AB 2514 target.<sup>23</sup> Instead, ORA argues the Commission should require SCE to count 6.5 MW of transmission or distribution-sided storage from SCE's SB 801 procurement towards SCE's AB 2514 target; the remaining 13.5 MW towards its AB 2868 investment plan; and all of its SB 801-driven customer side energy storage procurement towards its AB 2868 plan.<sup>24</sup>

As indicated in the scoping ruling, issues pertaining to AB 2868 are specifically reserved for the second phase of this proceeding. The Commission will not address the applicability of energy storage resources towards the AB 2868 obligations in this decision. The Commission has not yet settled the criteria for meeting AB 2868 eligibility.

However, this decision will address the applicability of the procurement from SB 801 towards SCE's AB 2514 energy storage target.

As ORA noted, and no other party contested, nothing prohibits SCE from counting energy storage procured pursuant to SB 801 towards its AB 2514 target. D.14-10-040 permits the utilities to count energy storage authorized in other Commission proceedings towards meeting their overall AB 2514 procurement targets.

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<sup>21</sup> SCE removed its claimed residual 6.5 MW for its 2018 cumulative AB 2514 energy storage procurement target in its amended testimony, Exhibit SCE-01B, rather citing a 53.58 MW surplus.

<sup>22</sup> Exhibit ORA-01 at 2.

<sup>23</sup> Exhibit ORA-01 at 2.

<sup>24</sup> Exhibit ORA-01 at 2.

Considering SCE has met and exceeded its 2018 AB 2514 target, it is reasonable for the Commission to allow SCE to count the relevant SB 801 procurement towards its remaining AB 2514 target beyond 2018. SCE has remaining AB 2514 target to fulfill for the 2020 cycle, so SB 801 procurement may satisfy that need. The issue of applicability of SB 801 procurement towards SCE's AB 2868 obligation is appropriate for the AB 2868 phase of this proceeding, but it would not be necessary since we have determined that SB 801 procurement should be credited toward SCE's AB 2514 target.

**3.3. Do the Proposed AB 2514 Procurement Plans and Request for Offers Framework Comply With D.13-10-040 and the Relevant Provisions of Previous Commission Energy Storage Decisions?**

**3.3.1. SDG&E**

This solicitation cycle is the third of four energy storage solicitation cycles for SDG&E in furtherance of its AB 2514 goal. SDG&E asserts that it is on track to meet its AB 2514 target and therefore is not proposing to conduct further Energy Storage procurement within its 2018 solicitation cycle to count towards this target.<sup>25</sup>

No party contested SDG&E's request to forego a solicitation for the third of its four AB 2514 energy storage solicitation cycles.

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<sup>25</sup> Exhibit SDGE-04 at 1.

**3.3.2. PG&E**

PG&E indicated it meets all of the requirements of D.13-10-040 and modifications adopted in D.16-01-032.<sup>26</sup> The requirements of D.13-10-040 include an explanation of the type of storage resources and the associated MW quantities the IOU intends to procure, a detailed description of how the IOU intends to procure resources, and the proposed methodology for an analysis that evaluates bids on cost and fit submitted in a solicitation.

PG&E proposes to procure the full amount of the energy storage procurement targets required for the 2018-2019 procurement cycle. However, PG&E requests to potentially defer up to 80 percent of the transmission and distribution targets, based on the cost-effectiveness and operational viability of the offers received in the 2018 Energy Storage Request for Offers.<sup>27</sup>

PG&E proposes that all “energy storage systems” as defined by Public Utilities Code (Pub. Util. Code) Section 2835(a), with the exception of pumped storage over 50 MW, are eligible to participate in the Energy Storage Request for Offers, subject to locational and minimum size thresholds.

Through the 2018 Energy Storage Request for Offers, PG&E is proposing to seek offers for energy storage projects that will participate in the California Independent System Operator (CAISO) wholesale markets, and offers for projects that will be utilized as transmission or distribution assets, which are collectively referred to as “Transmission and Distribution Assets.” Due to

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<sup>26</sup> Ordering Paragraph 1 of D.16-01-032 permits the IOUs to shift energy storage projects into the customer grid domain up to a ceiling of 200 percent of customer domain targets.

<sup>27</sup> Exhibit PGE-01 at 3-3.

operational restrictions and administrative burden, PG&E proposes that offers for wholesale market resources will only be considered if they meet size criteria. Resources connected at the distribution or transmission level must be at least 1 MW and no larger than 100 MW. At the transmission level, multiple energy storage facilities may aggregate their capacity to achieve the project size requirements in the aggregate, so long as: (1) the aggregate resource has a single CAISO Resource Identification; (2) the aggregate resource can be measured in a manner similar to having a single CAISO meter; (3) the aggregate resource has one Locational Marginal Price node; and (4) the aggregate resource complies with the CAISO Tariff.<sup>28</sup>

PG&E proposes that projects should provide online dates that provide PG&E the assurances that the project will be online by or prior to the date set in the Energy Storage Decision, which is the end of the year 2024, for PG&E to meet its targets. PG&E will require that projects be online no later than June 1, 2024 to ensure that the targets are met.

PG&E notes that the proposed primary vehicle for the procurement of energy storage connected to the transmission and distribution facilities will be the competitive 2018 Energy Storage Request for Offers. PG&E is proposing to conduct the Request for Offers as a part of its 2018 Energy Storage Plan.<sup>29</sup>

Regarding project evaluation, PG&E proposes an evaluation methodology for PG&E's 2018 Storage Request for Offers that is substantially the same as that used in PG&E's 2014 and 2016 energy storage Request for Offers. PG&E plans to

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<sup>28</sup> Exhibit PGE-01 at 3-6.

<sup>29</sup> Exhibit PGE-01 at 3-1.

develop and implement its Request for Offers under the oversight of the Independent Evaluator, the Procurement Review Group, and Energy Division staff. This includes the development and implementation of PG&E's Evaluation.

PG&E's Evaluation will apply the principles of its Least-Cost Best-Fit methodology, using quantitative and qualitative criteria based on information contained in the offer forms received through a Storage Request for Offers.<sup>30</sup> The results from PG&E's Evaluation will inform PG&E's selection of offers with which PG&E will enter into negotiations (Shortlisted Offers). For the 2018 Storage Request for Offers, PG&E's Evaluation will apply to transmission-connected and distribution-connected storage, as well as behind-the-meter "customer-side" storage.

No party contested whether PG&E's application complies with D.13-10-040 and other Commission decisions. We find that PG&E's Application complies with D.13-10-040 and other Commission decisions.

### **3.3.3. SCE**

This solicitation cycle is the third of four energy storage solicitation cycles for SCE in furtherance of its AB 2514 goal. SCE asserts that it is on track to meet its AB 2514 target for 2018 and therefore is not proposing to conduct further energy storage procurement within its 2018 solicitation cycle to count towards this target.<sup>31</sup> However, SB 801 mandated SCE to procure 20 MW of energy storage, and SCE proposes to count that procurement towards its future AB 2514 target.

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<sup>30</sup> Exhibit PGE-01 at 5-1.

<sup>31</sup> Exhibit SDGE-04 at 1.



No party contested SCE's request to forego an energy storage solicitation for the third of its four AB 2514 energy storage solicitation cycles.

**3.4. Do the Proposed AB 2514 Procurement Plans Comply With the Multiple Use Case Application (MUA) Rules?**

PG&E explained how it proposes to comply with the MUA decision.<sup>32</sup> SDG&E and SCE did not address the compliance of the MUA decision with their AB 2514 plans because their proposals are to not release a solicitation with this procurement cycle. PG&E included guidance from Appendix A of the MUA Decision into its storage contracts and Solicitation Protocol. PG&E also indicated it would require providers to list any additional services they will provide outside of the solicitation. Storage providers will submit this information on PG&E's Offer Form.

PG&E indicated it will include in its agreements the requirement for storage providers to commit that they will not enter into two or more reliability service obligation(s), such that the performance of one obligation prohibits the resource from performing the other. The agreements will specify terms to ensure resource availability, which may include but are not limited to, financial penalties. The storage agreements will also require storage providers to clearly demonstrate the total capacity of the resource, with the guarantee that a certain, distinct capacity be dedicated and available to the contracted reliability service(s).

No party contested the compliance of the utilities' procurement plans with the MUA rules. In light of PG&E being the only utility that may be releasing a

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<sup>32</sup> D.18-01-003 is the Multiple Use Application or MUA Decision.

solicitation for the 2018 energy storage procurement cycle, we find that the AB 2514 procurement plans are consistent with the MUA decision.

Further, we find that it was appropriate for SDG&E and SCE to not address compliance with the MUA decision for this cycle of AB 2514 procurement.

**3.5. Should PG&E's Deadline to Request Deferral of AB 2514 Storage Targets be Postponed Until PG&E Files its Application for Approval of its 2018 Energy Storage Request for Offers Procurement?**

PG&E indicates it intends to procure the full amount of the energy storage procurement targets required for the 2018-2019 procurement cycle. However, as determined in D.13-10-040, PG&E may defer up to 80 percent of the transmission and distribution targets, based on the cost-effectiveness and operational viability of the offers received in the 2018 Energy Storage Request for Offers.

Consistent with what the CPUC has authorized for the 2014 and 2016 Energy Storage Request for Offers, PG&E again requests that the deadline for any such request for deferral be the date that PG&E is required to file for approval of any contracts resulting from the 2018 Energy Storage Request for Offers. The earlier deadline in the Energy Storage Decision does not provide enough time for PG&E to fully evaluate the offers it receives in response to the Request for Offers.

As the Commission did in D.16-09-007, again we agree that this change is appropriate and grant the request.

**3.6. Should Technology Diversity be Prioritized in the Solicitations?**

Energy Division staff analysis found that to date, approximately 89 percent of the contracts executed pursuant to the Commission's Energy Storage

Procurement targets have been lithium ion batteries. The Scoping Ruling for this proceeding included a question on whether technology diversity should be prioritized in the 2018 solicitations. Parties marginally addressed the topic in their testimonies.

Subsequently, the Commission posed questions, through an assigned Commissioner and assigned ALJ ruling (technology diversity ruling), regarding whether policy should support a diverse set of technologies in the energy storage procurement activity of the investor owned utilities.

In the technology diversity ruling, the Commission posed a number of focused questions. Those questions were aimed at understanding how ratepayers may achieve greater value out of the investor owned utilities selecting a diverse portfolio of technologies in the energy storage solicitations.

Among the questions included in the ruling were:

- Can the Commission's stated goal in D.13-10-040 of transforming the energy storage market be considered achieved if a single energy storage technology comprises the majority of the owned and operated storage systems in PG&E, SCE and SDG&E's service territories?
- Are there any grid or ratepayer-beneficial attributes of energy storage that storage technologies besides lithium ion batteries may adequately provide (i.e. long duration, safety)? Are these attributes already captured in the utilities' cost-effectiveness valuation methodologies?
- Are there risks to ratepayers and the grid of utility energy storage portfolios comprised predominantly of a single energy storage technology?

The responses were varied, with some parties identifying potential value in diversity, and a number of parties identifying that additional exploration of value is warranted before diverging from the Commission's historically

preferred approach of technology neutral procurement. Some parties also suggested that this issue may be most appropriately considered as part of a future energy storage rulemaking.

Based on comments, at this time the Commission is not compelled to support nor reject the notion that there may be value in ensuring that there is a diverse fleet of energy storage technologies deployed throughout the State. We agree with parties that this topic may be most appropriately suited for consideration in a potential future energy storage rulemaking.

**3.7. Are the Terms and Conditions for the Provision of Energy Storage Services in the Utilities Proposed AB 2514 Request for Offers Protocols Reasonable and in the Public Interest?**

PG&E asserts that its proposed 2018 energy storage request for offers is consistent with D.13-10-040 and D.16-01-032. PG&E contends that its proposed 2018 energy storage request for offers documents were informed by the expressions of interest received in response to PG&E's prior energy storage solicitations.<sup>33</sup> PG&E puts forth the notion that this proposed request for offers builds upon the lessons learned in earlier energy storage requests for offers cycles, which were approved by the Commission in D.14-10-045 and D.16-09-007.<sup>34</sup>

For its 2018 energy storage request for offers, PG&E has included pro forma versions of its agreements for resource adequacy and for capacity

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<sup>33</sup> Ex. PGE-1, Monardi, p. 3-2, lines 16-18.

<sup>34</sup> PG&E Opening Brief on 2514 Issues at 13.

storage. PG&E has also included pro forma agreements for turnkey storage projects and long-term performance and maintenance agreements.

No party has contested PG&E's proposed terms and conditions. We find that PG&E's proposed terms and conditions for the provision of energy storage services in the utilities proposed AB 2514 request for offers protocols are reasonable and in the public interest.

**3.8. Are the Safety Requirements in the Utilities' 2018 Energy Storage Request for Offers Protocols Reasonable and Will the Utilities' Proposed Procurement Plans Ensure Safe and Reliable Delivery of Energy to Customers?**

The scoping memo explicitly identified safety as an issue in the proceeding. In response, PG&E described its efforts to ensure the proposed contracts that result from its 2018 request for offers will operate in a safe and reliable manner.

PG&E requires offering parties to provide information about the safety history and practices of the entities that would construct, operate, own or maintain the projects. Shortlisted participants will be required to submit safety plans that would demonstrate responsible safety management.

With SDG&E and SCE not issuing solicitations in the 2018 energy storage solicitation cycle, there are no issues of safety that the Commission needs to address with the proposed procurement plans of these two IOUs.

The Commission is committed to ensuring the safe deployment and interconnection of energy storage resources. Accordingly, the utilities are reminded of their critical role in ensuring the safe connection, operation, and maintenance of energy storage resources, as they carry the "ultimate responsibility for safety of resources connected to (their) facilities, regardless of

whether those resources are utility owned or owned by entities under contract to the utilities.”<sup>35</sup>

We find that PG&E has addressed potential safety concerns in a proactive and responsible manner and that there are no obvious safety concerns that remain to be addressed.

### **3.9. Should PG&E’s, SCE’s, and SDG&E’s Proposed Procurement Plans for the 2018 Biennial Solicitation be Adopted?**

#### **3.9.1. SDG&E**

SDG&E asserts that its existing procurement has fulfilled its AB 2514 targets and in turn, this application does not propose additional procurement for this biennial cycle.<sup>36</sup>

No party contested SDG&E’s assertion on the qualification of its existing procurement. In turn, the Commission finds that SDG&E may not hold an additional solicitation for the 2018 Biennial Solicitation.

#### **3.9.2. PG&E**

PG&E asserts that its proposed procurement plan for its 2018 energy storage request for offers should be adopted.<sup>37</sup>

Reasoning supporting Commission approval of PG&E’s 2018 procurement plan include that it,

- complies with D.13-10-040 and other relevant Commission Decisions and statutory requirements;
- targets an appropriate level of incremental storage procurement;

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<sup>35</sup> D.16-01-032 at 54.

<sup>36</sup> SDG&E Opening Brief on 2514 Issues at 5.

<sup>37</sup> PG&E Opening Brief on 2514 Issues at 3.

- incorporates appropriate safety requirements to ensure safe delivery of energy to customers; and
- incorporates reasonable terms and conditions for the provision of energy storage services.

PG&E notes in its opening brief on AB 2514 issues that since filing its prepared testimony in this application, PG&E filed Advice Letter 5322-E on June 29, 2018. That Advice Letter requests approval of incremental energy storage procurement agreements including three third-party owned energy storage projects and one utility-owned project that would total 567.5 MW of new capacity. If approved as proposed, these agreements would materially change PG&E's outstanding AB 2514 procurement requirements. If the Commission approves Advice Letter 5322-E prior to the execution of any agreements arising from PG&E's 2018 energy storage request for offers, PG&E proposes that it serve an update via a Tier 1 Advice Letter on this proceeding regarding how such approval impacts its 2018 energy storage requests for offers targets and procurement strategy.

No party contested these assertions of PG&E.

The Commission finds that PG&E's proposed procurement plan for the 2018 Biennial Solicitation is adopted.

In the event that the Commission approves any or all projects requested in Advice Letter 5322-E, it is possible the resources meet the relevant criteria, including cost effectiveness, to count towards PG&E's AB 2514 target. In this event, PG&E shall serve a Tier 1 advice letter on this proceeding regarding how such approval affects its 2018 energy storage requests for offers targets and procurement strategy.

**3.9.3. SCE**

SCE asserts that its existing procurement has fulfilled its AB 2514 target for 2018, and in turn, this application does not propose additional procurement for this biennial cycle.<sup>38</sup> Further, SCE asserts that the energy storage procurement SB 801 mandated, as it comports with D.14-10-040, should count towards its AB 2514 energy storage target.

We are persuaded by SCE's assertion that its plan for the 2018 Biennial Solicitation should be approved.

**4. Exhibit Identification and Outstanding Procedural Matters**

This proceeding included the following exhibits:

SDGE-01: Prepared Direct Testimony of Ted Reguly: Overview and Policy

SDGE-02: Prepared Direct Testimony of Stephen T Johnston: AB 2868 Framework

SDGE-03: Prepared Direct Testimony of Jennifer W. Summers: AB 2514 Solicitation Process

SDGE-04: Prepared Direct Testimony of Don Balfour: AB 2514 Procurement Targets

SDGE-05: Prepared Direct Testimony of Steven Prsha: Project Costs

SDGE-05A: SDG&E's Direct Testimony of Steven Prsha February 28, 2018 (Corrected March 27, 2018 and July 27, 2018)

SDGE-06: Prepared Direct Testimony of Evan M. Bierman: Customer Benefits

SDGE-06A: Prepared Direct Testimony of Evan M. Bierman: Customer Benefits (Corrected July 27, 2018)

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<sup>38</sup> SDG&E Opening Brief on 2514 Issues at 5.



SDGE-07: Prepared Direct Testimony of Mayda Bandy:  
Low-Income Customer Program

SDGE-07A: SDG&E's Direct Testimony of Mayda Bandy,  
February 28, 2018 (Corrected July 27, 2018)

SDGE-08: Prepared Direct Testimony of Michael R. Woodruff and  
James G. Vanderhye Jr.: Revenue Requirement

SDGE-08A: SDG&E's Direct Testimony of Michael R. Woodruff and  
James G. Vanderhye Jr., February 28, 2018 (Corrected March 27,  
2018)

SDGE-09: Prepared Direct Testimony of Norma G. Jasso:  
Regulatory Accounts

SDGE-10: Prepared Direct Testimony of Kellen C. Gill: Cost  
Recovery

SCE-01: Testimony of Southern California Edison Company in  
Support of Its 2018 Energy Storage Procurement and Investment  
Plan

SCE-01A: Amended Testimony of Southern California Edison  
Company in Support of Its 2018 Energy Storage Procurement and  
Investment Plan

SCE-01B: Second Amended Testimony of Southern California  
Edison Company in Support of Its 2018 Energy Storage Procurement  
and Investment Plan

SCE-02: Rebuttal Testimony of Southern California Edison  
Company in Support of its 2018 Energy Storage Procurement and  
Investment Plan

SCE-02A: Amended Rebuttal Testimony of Southern California  
Edison Company in Support of its 2018 Energy Storage Procurement  
and Investment Plan

PGE-01: PG&E's 2018 Energy Storage Procurement and Investment  
Plan, 2018 Assembly Bill 2514 Energy Storage Procurement Plan,  
Prepared Testimony, Volume 1 of 3

PGE-02: PG&E's 2018 Energy Storage Procurement and Investment Plan, 2018 Assembly Bill 2514 Energy Storage Procurement Plan, Prepared Testimony, Volume 2 of 3

PGE-03: PG&E's 2018 Energy Storage Procurement and Investment Plan, 2018 Assembly Bill 2514 Energy Storage Procurement Plan, Prepared Testimony, Volume 3 of 3

ORA-1: Prepared Testimony on PG&E, SDG&E, and SCE's Applications for Approval of Their 2018 Energy Storage Procurement and Investment Plan

All marked exhibits (SDGE-01, SDGE-02, SDGE-03, SDGE-04, SDGE-05, SDGE-05A, SDGE-06, SDGE-06A, SDGE-07, SDGE-07A, SDGE-08, SDGE-08A, SDGE-09, SDGE-10, SCE-01, SCE-01A, SCE-01B, SCE-02, SCE-02A, PGE-01, PGE-02, PGE-03, ORA-1) are received into evidence as of the date of this decision

On June 14, 2018, PG&E filed and served a motion to update information regarding energy storage system procurement targets and policies. The information in this motion updates the information provided in Chapter 2, Attachment A of Volume 1 of the Prepared Testimony PG&E has provided to parties in this proceeding. As submitted in PG&E's testimony, this list includes the 30 MW NextEra Golden Hills project. On May 14, 2018, PG&E and Golden Hills Energy Storage, LLC, a subsidiary of NextEra Energy Resources, LLC, agreed to terminate the project. PG&E's plan, absent any different directive from the Commission, is to increase its 2018 energy storage target further, with the intent to meet not only PG&E's 2018 energy storage target as originally adopted by the Commission, but also to make up any shortfall in meeting, in the aggregate, PG&E's earlier energy storage targets. Good cause shown, this motion to update PG&E's testimony is granted.

The Commission affirms all rulings made by the assigned Commissioner and assigned ALJs.

**5. Categorization and Need for Hearing**

The Commission preliminarily categorized this application as ratesetting, and preliminarily determined that hearings were necessary. It was subsequently determined that hearings are not necessary.

**6. Comments on Proposed Decision**

The proposed decision of ALJ Stevens in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on \_\_\_\_\_, and reply comments were filed on \_\_\_\_\_ by \_\_\_\_\_.

**7. Assignment of Proceeding**

Carla J. Peterman is the assigned Commissioner and Brian Stevens is the assigned ALJ in this proceeding.

**Findings of Fact**

1. The Commission directed SDG&E, PG&E, and SCE to procure energy storage in furtherance of its AB 2514 target through four biennial solicitation cycles between 2014 and 2020.
2. The 2018 biennial solicitation cycle is the third of four solicitation cycles the Commission directed SDG&E, PG&E, and SCE to conduct.
3. SDG&E's cumulative 2018 AB 2514 target is for 95 MW of qualifying energy storage capacity, 47 MW in the transmission domain, 32 MW in the distribution domain, and 16 MW in the customer domain.
4. To date, SDG&E has procured 159.91 MW of AB 2514 qualifying energy storage capacity.
5. SDG&E has met its total 2018 AB 2514 target with existing energy storage resource procurement.

6. SDG&E is proposing to not hold a solicitation in furtherance of its 2018 AB 2514 solicitation cycle.

7. PG&E's cumulative 2018 AB 2514 target is for 370 MW of qualifying energy storage capacity, 200 MW in the transmission domain, 120 MW in the distribution domain, and 50 MW in the customer domain.

8. To date, PG&E has procured 202.93 MW of AB 2514 qualifying energy storage capacity.

9. PG&E has a residual AB 2514 2018 cumulative target of 167.07 MW of energy storage procurement, 65 MW in the transmission domain, 83.5 MW in the distribution domain, and 18.57 MW in the customer domain.

10. On June 14, 2018, PG&E filed and served a motion to update information regarding energy storage system procurement targets and policies, indicating on May 14, 2018, PG&E and Golden Hills Energy Storage, LLC, a subsidiary of NextEra Energy Resources, LLC, agreed to terminate the 30 MW Golden Hills Energy Storage project.

11. PG&E is proposing to hold a solicitation for up to 160 MW of energy storage resources in furtherance of its 2018 AB 2514 solicitation cycle, and 30 MW of additional capacity to backfill for the terminated Golden Hills Energy Storage, LLC project.

12. The terms, conditions, and safety requirements of PG&E's proposed 2018 energy storage solicitation comport with D.13-10-040 and other Commission decisions and are reasonable and in the public interest.

13. In past decisions, the Commission has allowed PG&E to defer up to 80 percent of the transmission and distribution targets, based on the cost-effectiveness and operational viability of the offers received in the 2018 Energy Storage request for offers.

14. PG&E filed Advice Letter 5322-E on June 29, 2018 that requests approval of incremental energy storage procurement agreements, including three third-party owned energy storage projects and one utility-owned project, that would total 567.5 MW of new capacity.

15. The resources included in Advice Letter 5322-E, if approved, may qualify to count towards PG&E's AB 2514 procurement target.

16. SCE's cumulative 2018 AB 2514 target is for 370 MW of qualifying energy storage capacity, 200 MW in the transmission domain, 120 MW in the distribution domain, and 50 MW in the customer domain.

17. To date, SCE has procured 423.58 MW of AB 2514 qualifying energy storage capacity.

18. The flexibility rules adopted in R.15-03-011 allow SCE to apply up to 85 MW of customer-connected storage toward meeting the targets in the transmission and distribution domains.

19. SCE has met its total 2018 AB 2514 target with existing energy storage resource procurement but has remaining procurement needed to meet its total cumulative AB 2514 target.

20. SB 801 directed SCE to procure 20 MW of additional energy storage that qualifies to count towards SCE's AB 2514 target.

21. SCE is in the process of soliciting and selecting offers to meet its obligation in SB 801.

22. SCE is proposing to not hold an additional solicitation in furtherance of its 2018 AB 2514 solicitation cycle.

### **Conclusions of Law**

1. SDG&E's proposed 2018 AB 2514 solicitation cycle procurement framework should be approved.

2. SDG&E should not be required to hold a solicitation in furtherance of its 2018 AB 2514 target.
3. PG&E's proposed 2018 AB 2514 solicitation cycle procurement framework should be approved.
4. PG&E should hold a solicitation on December 1, 2018 or at the date of approval of this decision, whichever comes later, in furtherance of its 2018 AB 2514 procurements and to make up any shortfall in meeting its earlier energy storage targets.
5. PG&E's deadline to request deferral of meeting its 2018 energy storage goal should be modified to coincide with the date of the application for approval of energy storage contracts entered into as a result of the 2018 Request for Offers process. Any such request should be included in the application for approval of the 2018 energy storage contracts.
6. If the Commission approves any or all of the projects proposed in Advice Letter 5322-E prior to the execution of any agreements arising from PG&E's 2018 energy storage request for offers, PG&E should serve a Tier 1 Advice Letter on the service list of this proceeding regarding how such approval impacts its 2018 energy storage requests for offers targets and procurement strategy.
7. SCE's proposed 2018 AB 2514 solicitation cycle procurement framework should be approved.
8. SCE should not be required to hold a solicitation in furtherance of its 2018 AB 2514 target.
9. SCE should be authorized to count its SB 801 procurement towards its AB 2514 target.
10. PG&E's June 14, 2018 motion to update information regarding energy storage system procurement targets and policies should be granted.

11. Exhibits SDGE-01, SDGE-02, SDGE-03, SDGE-04, SDGE-05, SDGE-05A, SDGE-06, SDGE-06A, SDGE-07, SDGE-07A, SDGE-08, SDGE-08A, SDGE-09, SDGE-10, SCE-01, SCE-01A, SCE-01B, SCE-02, SCE-02A, PGE-01, PGE-02, PGE-03, ORA-1 are identified and should be received into evidence as of the date of this decision.

**O R D E R**

**IT IS ORDERED** that:

1. San Diego Gas and Electric Company's proposed 2018 Assembly Bill 2514 solicitation cycle procurement framework is approved.
2. San Diego Gas and Electric Company is not required to hold a solicitation in furtherance of its 2018 Assembly Bill 2514 target.
3. Pacific Gas and Electric Company's proposed 2018 Assembly Bill 2514 solicitation cycle procurement framework is approved.
4. Pacific Gas & Electric Company shall hold a solicitation on December 1, 2018 or shortly after the date of approval of this decision, whichever comes later, in furtherance of its 2018 Assembly Bill (AB) 2514 target and to make up any shortfall in meeting its earlier AB 2514 energy storage targets due to project termination.
5. Pacific Gas and Electric Company's deadline to request deferral of meeting its 2018 energy storage goal is modified to coincide with the date of the application for approval of energy storage contracts entered into as a result of the 2018 Request for Offer process. Any such request must be included in the application for approval of the 2018 energy storage contracts.

6. If the Commission approves any or all of the projects proposed in Advice Letter 5322-E prior to the execution of any agreements arising from Pacific Gas and Electric Company's 2018 energy storage Request for Offers, Pacific Gas and Electric Company must serve a Tier 1 Advice Letter on the service list of this proceeding regarding how such approval impacts its 2018 energy storage Requests for Offers targets and procurement strategy.

7. Southern California Edison Company's proposed 2018 Assembly Bill 2514 solicitation cycle procurement framework is approved.

8. Southern California Edison Company is not required to hold a solicitation in furtherance of its 2018 Assembly Bill 2514 target.

9. Southern California Edison is authorized to count its Senate Bill 801 procurement towards its Assembly Bill 2514 target.

10. Pacific Gas and Electric Company's motion to update information regarding energy storage system procurement targets and policies is granted.

11. Exhibits SDGE-01, SDGE-02, SDGE-03, SDGE-04, SDGE-05, SDGE-05A, SDGE-06, SDGE-06A, SDGE-07, SDGE-07A, SDGE-08, SDGE-08A, SDGE-09, SDGE-10, SCE-01, SCE-01A, SCE-01B, SCE-02, SCE-02A, PGE-01, PGE-02, PGE-03, ORA-1 are identified and received into evidence as of the date of this decision.

12. Application (A.) 18-02-016, A.18-03-001, and A.18-03-002 remain open.

This order is effective today.

Dated \_\_\_\_\_, at San Francisco, California.