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April 9, 2018

California Public Utilities Commission  
Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue, 4th Floor  
San Francisco, CA 94102-3298

**Advice Letter LCE 007-E**

**RE: ENERGY STORAGE PROCUREMENT**

**EFFECTIVE DATE**

The City of Lancaster (“Lancaster”) requests that this Tier 2 Advice Letter become effective on May 9, 2018, which is 30 days after the date of this filing.

**TIER DESIGNATION:** Tier 2 Designation

**PURPOSE**

California Public Utilities Commission (“Commission”) Decision (“D.”) D.13-10-040, *Decision Adopting Energy Storage Procurement Framework and Design Program* establishes an energy storage (“ES”) procurement goal of 1% of 2020 peak load for Community Choice Aggregation (“CCA”) programs.<sup>1</sup> D.17-04-054 modifies this requirement by implementing an “automatic limiter” that reduces a CCA program’s 1% ES procurement obligation as needed to ensure that the CCA program’s total ES procurement (its direct ES procurement plus its proportional share of Investor-Owned Utility (“IOU”) ES procurement paid for through distribution rates and non-bypassable charges) does not exceed the ES procurement obligation of its distribution IOU.<sup>2</sup>

Lancaster submits this Tier 2 Advice Letter to inform the Commission about the status of its ES procurement activities and its progress toward meeting its ES procurement goal of 1.98 MW (1% of Lancaster’s 2020 projected peak load of 198 MW).<sup>3</sup> Lancaster’s ES procurement is as follows:

<sup>1</sup> D.13-10-040 at 36, 77 (Ordering Paragraph 5); D.17-04-039 at 63 (Finding of Fact 13).

<sup>2</sup> D.17-04-039 at 68 (Ordering Paragraph 6).

<sup>3</sup> The 2020 peak load estimate from Lancaster’s implementation plan is 195 MW. Based on the most recent information available, Lancaster has updated this estimate to 198 MW.

1. Lancaster currently has 0.03 MW of ES resources under contract.
2. Lancaster plans to procure, at a minimum, an additional 4 MW of ES resources by 2020.
3. SCE has not reported any Self Generation Incentive Program (“SGIP”) funded ES projects in Lancaster territory. Lancaster is entitled to ES credit for 50% of the capacity of any future SGIP-funded projects built in Lancaster’s service territory.
4. As of January 2018, the customers of all CCA programs in SCE’s service territory, as a group, are paying for 2.0 MW of SCE’s ES procurement through non-bypassable charges (“NBC”) and/or distribution rates.<sup>4</sup> Lancaster’s share of this procurement counts towards the calculation of Lancaster’s automatic limiter (discussed below), but not Lancaster’s 1% target.

With 4.03 MW of current and planned ES procurement, Lancaster is on pace to significantly exceed its 1% ES target by 2020.

## **BACKGROUND**

The Commission issued D.13-10-040 on December 21, 2013, pursuant to Assembly Bill (“AB”) 2514, and adopted the Energy Storage Procurement Framework and Design Program for IOUs, Electric Service Providers (“ESPs”), and CCA programs. D.13-10-040 establishes a goal for CCA programs to procure ES resources equal to 1% of their 2020 peak load.<sup>5</sup> While this goal does not have to be met until 2020, the Commission stated that it does not want CCA programs “to delay procurement until that time,” so D.13-10-040 accordingly requires that each CCA program file a Tier 2 Advice Letter to show progress toward the 2020 goal every two years, beginning on January 1, 2016.<sup>6</sup>

In D.17-04-054 the Commission recognized that CCA customers may be required to pay for ES procurement by Investor Owned Utilities (“IOUs”) through their distribution rates and/or NBCs. To prevent the total effective ES procurement that a CCA customer is responsible for from exceeding the ES procurement obligation that an IOU customer is responsible for, the Commission adopted an “automatic limiter” that:

...proportionately reduces each Community Choice Aggregator’s and Energy Service Provider’s one percent procurement obligation by the amount that the load serving entity’s own procurement plus its customers’ share of non-bypassable charges exceeds the utility bundled customer obligation as a percentage of load. If the limiter is reached, the consolidated utility compliance filing shall automatically reflect the reduced Community Choice Aggregator / Energy Service Provider energy storage procurement obligation.<sup>7</sup>

To count toward the 2020 goal, ES projects must meet the following eligibility requirements:

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<sup>4</sup> SCE Advice Letter 3640-E-A, Table 5.

<sup>5</sup> D.13-10-040 at 43, 47.

<sup>6</sup> D.13-10-040 at 47.

<sup>7</sup> D.17-04-039 at 68 (Ordering Paragraph 6).

1. **ES systems must be installed and operational after January 1, 2010:** As required by California Public Utility Code section 2835, subdivision (c), a “new energy storage system” is a “system that is installed and first becomes operational after January 1, 2010.”
2. **ES systems must be online and delivering by the end of 2024:** All 2020 compliance target procurements must be “installed,”<sup>8</sup> or “online and delivering,” by December 31, 2024.<sup>9</sup>
3. **Distributed storage qualifies:** The Commission “shall allow customer sited or customer-owned energy storage to count toward the 1% target” for CCA programs.<sup>10</sup>
4. **Electric vehicle programs qualify:** IOUs, ESPs, and CCA programs may count “[e]nergy storage that could be obtained from plug-in vehicles and programs/systems that utilize electric vehicles for grid services (Vehicle to Grid)” for their procurement goals.<sup>11</sup>
5. **Storage funded by departing utility customers is excluded:** The load associated with customers departing from utility bundled services for CCA participation “shall not be counted towards meeting the CCA or ESP’s 1 percent procurement target.”<sup>12</sup>
6. **ES projects must further a relevant purpose:** Projects must demonstrate their ability to meet one or more of the following purposes: grid optimization, integration of renewable energy, or reduction of greenhouse gas emissions.<sup>13</sup>
7. **Government funded projects may be included:** “It is reasonable to include any PIER- or EPIC- funded projects toward the procurement targets under certain conditions.”<sup>14</sup>
8. **ES procurement must be cost-effective:** AB 2514 provides that ES must be “viable and cost-effective,” but the Commission has not adopted a specific cost-effectiveness methodology. D.13-10-040 requires each CCA program to “describe its methodology for measuring cost-effective projects.”<sup>15</sup>

## COST-EFFECTIVENESS

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<sup>8</sup> D.13-10-040 at 43.

<sup>9</sup> D.13-10-040 at 48.

<sup>10</sup> D.13-10-040 at 59.

<sup>11</sup> D.13-10-040 at 32; Appendix A at 5.

<sup>12</sup> D.13-10-040 at 48.

<sup>13</sup> D.13-10-040 at 32; Appendix A at 3.

<sup>14</sup> D.13-10-040 at 63.

<sup>15</sup> D.13-10-040 at 77 (Ordering Paragraph 5).

Cost is an important consideration in Lancaster's procurement of energy storage. To date, Lancaster's energy storage procurement efforts have been primarily focused on leveraging grant opportunities. As part of the project evaluation process, Lancaster examines the overall cost of an energy storage project that can be funded with an available grant and then compares it to the overall cost of alternative projects that may be also be funded with grants. Cost is then considered along with other criteria to determine which projects should be pursued. Lancaster is currently in the "design phase" of its Alternative Energy Community project, and will apply for PH II funding with the CEC in May 2018.

If awarded this funding, Lancaster will begin the Request for Proposals ("RFP") process for construction contracts. RFP solicitations will require that project bidders provide detailed information about the proposed energy storage system, including charging and output characteristics, maintenance requirements and the lifespan of the system. In addition to information about the system itself, solicitations will also require the submission of detailed pricing information.

Proposals will then be evaluated based on detailed criteria. An important criterion in the evaluation of energy storage projects will be the overall cost of the project, including labor and equipment. The track record of the generator in keeping costs within project budgets and estimates will also be considered and evaluated. Energy storage projects will also be selected based upon the knowledge and experience of the bidder, ability to perform the services in the time allowed, record of success on similar work, and ability to communicate about issues related to the project.

## **ENERGY STORAGE PROJECTS**

Lancaster currently has one ES project under contract: the *Museum of Art & History Electric Vehicle Charging and Energy Storage System*. This system has a total capacity of 0.03 MW. On February 3, 2014, Lancaster contracted with Green Charge Networks, LLC for the development and installation of electric vehicle charging and energy storage systems at the Museum of Art & History located in Lancaster, California. The maximum storage and constant discharge capabilities of this storage system are 30 kWh and 30 kW, respectively. The charging and storage system began operation on October 23, 2014, for its initial term of 5 years. This project has just completed its second year of operation and has resulted in significant energy cost savings, contributed to grid optimization, helped to enable the integration of Lancaster's solar energy resources, and helped to reduce greenhouse gas emissions. Lancaster anticipates renewing the agreement for an additional 5 years once the original contract term ends, meaning that this storage system will contribute to Lancaster's energy storage goal of 1% of 2020 retail sales.

Further, Lancaster is planning to procure at least an additional 4 MW of ES resources. All of these resources will be under contract by 2020 and will be active prior to 2024. Lancaster's planned ES procurement includes the following project:

## *Alternative Energy Community*

In October 2016, Lancaster, partnering with ZNE Alliance, was awarded \$1.5 Million grant funding (Phase I) under the California Energy Commission's ("CEC") Electric Program Investment Charge ("EPIC") program's EPIC Challenge to plan and design projects/programs for an Alternative Energy Community ("AEC"). The AEC project will provide approximately 4 MW of battery storage initiatives, such as:

- Developing community solar infrastructure with battery storage. Lancaster is building three 3 MW solar projects for a community solar program. One of these projects could be used as a pilot project for the grant to explore benefits of combined solar and battery storage.
- Designing a "green station network" program to deploy energy storage batteries to customers, such as large commercial, to lower demand charges by up to 50%.
- Developing a Distributed Energy Resource (DER) valuation framework that will include pilot use cases of 1) energy/capacity modeling, 2) grid services modeling, 3) deferred infrastructure modeling, and 4) emergency back-up power
- Developing a "Green District" community which will include a district or community of customers that join a community-financed virtual power plant. Project would connect to, and centrally manage in real-time several buildings' load (lighting, HVAC, etc), EV Chargers, and solar/energy storage assets.
- Net Zero Housing Development includes homes that will be built as net zero homes under a "master-meter" to share the load and renewable energy benefits of the community. Includes solar, EV charging, and battery storage on each home.
- Exploring vehicle-to-grid integration, partnering with AVTA electric bus fleet to explore the capability of mobile energy storage for emergency backup power.

Upon successful completion of Phase I (Planning, Permitting, Program Design), a Phase II Grant Funding Opportunity is anticipated in May of 2018. Phase II will provide funding for Construction of Phase I projects for deployment in 2019.

The AEC project, and all of the initiatives and procurement under this project, would contribute to grid optimization, enable the integration of renewable energy, and reduce greenhouse gas emissions.

## **SHARE OF SGIP-FUNDED PROJECTS**

Based on SCE's most recent SGIP advice letter, AL 3712-E, SCE currently does not have any SGIP-funded projects in Lancaster's service territory. Should any additional SGIP-funded ES projects be developed in Lancaster's territory between now and 2020, Lancaster will be entitled to 50% of the ES credit for said projects, with this credit counting towards Lancaster's 1% ES target.<sup>16</sup>

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<sup>16</sup> D.16-01-032 at 61.

## **AUTOMATIC LIMITER AND SHARE OF IOU ES PROCUREMENT**

D.17-04-054 requires that each IOU provide updated data for calculating the automatic limiter via an annual Tier 1 advice letter filing. SCE's most recent amended automatic limiter advice letter, Advice Letter 3640-E-A, was filed on January 16, 2018. This filing demonstrates that CCA customers in SCE's distribution service territory, in aggregate, are currently paying for 2.0 MW of SCE ES procurement through NBCs and/or distribution rates. Lancaster's customers are entitled to credit for their proportional share of this procurement. This credit counts towards the automatic limiter, but not towards Lancaster's 1% ES obligation. Lancaster's 1% direct ES obligation plus Lancaster's share of SCE ES procurement recovered through NBCs does not exceed SCE's stated ES obligation of 2.8% of 2020 peak load,<sup>17</sup> meaning that the Automatic Limiter has not been triggered at this time, and LANCASTER's direct ES obligation remains 1%.

### **NOTICE**

Anyone wishing to protest this advice filing may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice filing. Protests should be mailed to:

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, California 94102  
E-mail: EDTariffUnit@cpuc.ca.gov

Copies should also be mailed to the attention of the Director, Energy Division, Room 4004 (same address above). In addition, protests and all other correspondence regarding this advice letter should also be sent by letter and transmitted via facsimile or electronically to the attention of:

Cathy DeFalco, EJD, CPM  
Energy Manager - Regulatory  
Lancaster Choice Energy  
City of Lancaster  
Phone: (661) 723-6185  
E-mail: cdefalco@cityoflancasterca.org

There are no restrictions on who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

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<sup>17</sup> SCE Advice Letter 3640-E-A, Table 6.

**CORRESPONDENCE**

For questions, please contact Cathy DeFalco at (661) 723-6185 or by electronic mail at [cdefalco@cityoflanasterca.org](mailto:cdefalco@cityoflanasterca.org).



Cathy DeFalco, EJD, CPM  
Executive Director  
Lancaster Choice Energy

cc: Service List R.10-12-007  
Service List R.15-03-011