



# CITY OF CERRITOS<sup>SM</sup>


CIVIC CENTER • 18125 BLOOMFIELD AVENUE  
P.O. BOX 3130 • CERRITOS, CALIFORNIA 90703-3130  
PHONE: (562) 860-0311 • WWW.CERRITOS.US





9B

## A G E N D A R E P O R T

TO: Honorable Mayor and Members of the City Council

FROM: Art Gallucci, City Manager 

INITIATED BY: Vince Brar, Senior Assistant City Manager   
Kanna Vancheswaran, Assistant City Engineer 

DATE: September 11, 2014

SUBJECT: **CONSIDERATION TO WAIVE READING OF AND ADOPT A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CERRITOS ADOPTING TARGETS FOR THE CERRITOS ELECTRIC UTILITY TO PROCURE COST-EFFECTIVE ENERGY STORAGE SYSTEMS**

### BACKGROUND

State Law, under Assembly Bill 2514 (AB 2514) requires the governing board of each publicly-owned utility (POU) to "determine appropriate targets, if any, for the utility to procure viable and cost-effective storage systems to be achieved by December 31, 2016, and December 31, 2021". As the governing board for Cerritos Electric Utility (CEU), the City Council must adopt any appropriate energy storage targets by October 1, 2014, and reevaluate its determination for an energy storage procurement target at least once every three years. CEU is required to provide the California Energy Commission (CEC) with adopted energy storage procurement targets and any subsequent modifications made to such targets as a result of reevaluation. By January 1, 2017 and January 1, 2022, CEU must also report to the CEC on the progress toward meeting these targets.

AB 2514 also required that the California Public Utilities Commission (CPUC) open a proceeding to determine appropriate targets for entities under their jurisdiction to procure viable and cost-effective energy storage systems. In October 2013, the CPUC established an energy storage target of 1,325 megawatts for investor owned utilities (IOUs) by calendar year 2020, with installations required no later than the end of calendar year 2024, where megawatts represents the peak capacity of the storage resource in terms of the maximum discharge rate. The CPUC also established a target for Community Choice Aggregators (CCA) and Electric Service Providers (ESPs) to procure energy storage equal to one (1) percent of their annual peak load in calendar year 2020 with installation no later than calendar year 2024, consistent with the requirements for the IOUs. (CCAs and ESPs are similar to CEU and only provide the energy to their retail customers while the IOU provides physical distribution of electricity to the customers' meters).

As defined by the law, an energy storage system must absorb energy, store it for a period of time, and then dispatch the stored energy. Energy storage procurement also includes the use of energy storage devices that are owned by customers or other third parties. An energy storage system must be cost effective and either: 1) reduce emissions of greenhouse gases; 2) reduce demand for peak electrical generation; 3) defer or substitute for an investment in generation, transmission, or distribution assets; or 4) improve the operation of the electrical transmission or distribution grid. The performance and location of an energy storage system determine the services it can provide. An energy storage system is rated according to both how much power it can absorb and supply (kilowatt or kW), and the duration for which it can supply its rated power (kilowatt-hour, or kWh). Other performance characteristics include the energy loss between charging and discharging, time required to reach the desired power level and the number of charge/discharge cycles before replacement is required.

## **FINDINGS**

The cost of energy storage typically includes a power (kW) component associated with the power conversion element of the system, and an energy (kWh) component associated with the energy storage element of the system. Rechargeable batteries are the most commonly known energy storage technology. The estimated cost of a lead-acid rechargeable battery is \$400/kW plus \$330/kWh, with an estimated energy loss of 25 percent between charging and discharging. The current expenditure for a typical energy storage battery equal to one (1) percent of the CEU load is \$72,000.

While CEU's review of existing energy storage technologies did not identify any application that would be cost-effective, it is anticipated that with the passage-of-time and improvements in technology, energy storage systems will become more commercially tested and cost-competitive with other resources. Therefore, in order to capture potential market opportunities, it is recommended that CEU establish energy storage targets for cost-effective applications equal to one (1) percent of its peak load during calendar years 2015 and 2020, with installation no later than the end of calendar years 2016 and 2021. However, if a cost-effective applicable energy storage application is not identified, the appropriateness of these targets will be reevaluated by June 2016 and 2021 respectively.

## **RECOMMENDATION**

Staff recommends that the City Council waive further reading of and adopt the attached captioned resolution:

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CERRITOS ADOPTING TARGETS FOR THE CERRITOS ELECTRIC UTILITY TO PROCURE COST-EFFECTIVE ENERGY STORAGE SYSTEMS**

Exhibit List:

1. Resolution

**CITY OF CERRITOS**

**RESOLUTION NO. 2014-\_\_\_\_\_**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CERRITOS  
ADOPTING TARGETS FOR THE CERRITOS ELECTRIC UTILITY TO  
PROCURE COST-EFFECTIVE ENERGY STORAGE SYSTEMS**

WHEREAS, State Assembly Bill 2514 (Chapter 469, Statutes of 2010) added sections 2835 and 2836 to the Public Utilities Code; and

WHEREAS, Section 2836(b) (1) of the Public Utilities Code requires the governing board of each local publicly owned electric utility ("POU") to initiate a process to determine appropriate targets, if any, for the POU to procure viable and cost-effective energy storage systems to be achieved by December 31, 2016, and December 31, 2020; and

WHEREAS, Section 2836(b) (2) of the Public Utilities Code requires the governing board of each POU to adopt procurement targets, if determined to be appropriate, by October 1, 2014; and

WHEREAS, Section 2836(b) (3) of the Public Utilities Code requires the governing board of each POU to reevaluate these determinations at least once every three years; and

WHEREAS, Section 9506 (3) of the Public Utilities Code requires each POU to report to the California Energy Commission the energy storage system procurement targets, if any, adopted by the POU's governing board;

WHEREAS, the City of Cerritos ("City") operates a municipal electric utility; and

WHEREAS, as a municipal electric utility, the City is generally subject to the legislative and regulator requirements applicable to POU's; and

WHEREAS, To conform to California Public Utilities Code § 2836(b)(1) and § 2836.6, staff evaluated the viability and cost-effectiveness of applicable energy storage technologies to serve the City's electric utility customers; and

WHEREAS, The evaluation included applicable energy storage technologies and costs, load forecasts, potential on-site customer generation and market alternatives; and

WHEREAS, Based on that evaluation, staff found that the application of utility-owned and operated energy storage technology to serve the City's electric utility customers over the next three years is more costly than the value of benefits; and

WHEREAS, AB 2514 requires City to reevaluate the feasibility of applicable cost effective energy storage procurement target not less than once every three years; and

WHEREAS, It is anticipated that with the passage-of-time and improved technology energy storage systems will become cost-competitive with other resources; and

WHEREAS, To capture market opportunities, it is recommended that the City establish an energy storage targets for cost-effective applications equal to one (1) percent of the peak load during calendar years 2015 and 2020, with installation no later than the end of calendar years 2016 and 2021. However, if a cost-effective applicable energy storage is not identified, the appropriateness of these targets will be reevaluated by June 2016 and 2021 respectively; and

WHEREAS, The City Council has reviewed staff's evaluation and recommendation and determined that a target to procure cost-effective energy storage systems is appropriate.

**NOW, THEREFORE, THE CITY OF CERRITOS CITY COUNCIL DOES FIND, DETERMINE AND DECLARE AS FOLLOWS:**

**Section 1.** The recitals and findings set forth above are true and correct and are hereby incorporated in their entirety as part of this Resolution by this reference.

**Section 2.** To satisfy the City's obligations pursuant to AB 2514, the Council determines that establishing energy storage targets for cost-effective applications equal to one (1) percent of the 2015 and 2020 peak load with installation no later than the end of 2016 and 2021 is appropriate.

**Section 3.** If a cost-effective applicable energy storage application is not identified, the appropriateness of these targets will be reevaluated by June 2016 and 2021 respectively.

**PASSED, APPROVED and ADOPTED this 11th day of September 2014.**

\_\_\_\_\_  
Mark E. Pulido, Mayor

ATTEST:

\_\_\_\_\_  
Vida Barone, City Clerk