





CITY OF REDDING REPORT TO REDDING CITY COUNCIL

MEETING DATE: September 16, 2014 ITEM NO. 4.5(a) [E-120]	FROM: Barry Tippin, Asst. City Manager/REU Director
SUBJECT: 4.5(a)--Approve Energy Storage Compliance Plan	
APPROVED BY	
Department Director:  Barry Tippin, Asst. City Manager/REU Director 9/4/2014	City Manager:  Kurt Starman, City Manager 9/8/2014

Recommendation:

Approve Redding Electric Utility's (REU's) Energy Storage Compliance Plan (ESCP) pursuant to the passage of Assembly Bill 2514 (AB 2514), Energy Storage Systems, in 2010.

Background:

REU has been actively investing in energy storage systems for nearly 10 years and has been installing thermal energy storage (TES) systems in increasing amounts since 2005. Redding is ideal for technologies such as TES, which directly shifts electrical demand (kW) from the summer peak period to the off-peak hours.

Redding's Energy Storage Program provides several cost-effective benefits to REU customers through shifting peak power needs to off-peak times which reduces the need for future, expensive on-peak resources; better utilization of existing power assets/supplies (off-peak/nighttime making of ice); reduction of greenhouse gasses; and meeting the requirements of AB 2514.

AB 2514 requires consideration be given to the development of energy storage programs for all investor-owned and publicly-owned utilities in California. To accomplish this mandate, the legislation established that on or before March 1, 2012, REU was required to initiate proceedings for the Council to determine appropriate energy storage procurement targets, if any, to be achieved by December 31, 2016, and December 31, 2020. The procurement targets, if determined to be appropriate, must be adopted by October 1, 2014.

In February 2012, the Council did initiate compliance proceedings by adopting an ongoing analysis of TES market potential in Redding as part of the City's requirement for the 2016 and 2020 procurement targets. This proceeding satisfied the first of the two AB 2514 milestones mentioned above.

In May 2012, REU contracted with Redding's main supplier of TES systems, Ice Energy, Inc., to evaluate what level of commercial TES capacity could be adopted in REU's service area. A city-wide survey of REU's commercial customers was completed which demonstrated that up to 14 Megawatts (MWs) of Permanent Load Shifting (PLS) could be achieved in Redding with expansion of REU's existing TES Program.

While not legislatively mandated to do so, in June 2012, the Council approved the expansion of REU's TES Program. This Program essentially provides the framework for Redding's ESCP and is the mechanism for meeting all of the requirements set forth in AB 2514. The TES Program expansion provides for approximately 2 MW of PLS that would be in addition to REU's existing TES/PLS already procured and installed from 2005 through May 2012 (1.3 MW). In addition, the Program expansion includes contract provisions for 2016-2017 allowing the City to procure additional TES/PLS systems up to 0.8 MW should REU operating conditions warrant more TES/PLS capability.

In summary, REU's energy storage targets for 2016 and 2020 are 3.6 MW and 4.4 MW respectively. Provisions within AB 2514 require a review of these target levels at no more than three-year intervals; therefore, the initial target value for 2020 (set as of October 1, 2014) will be reviewed no later than September 16, 2015 and again September 16, 2018.

Issue:

Should the Council approve REU's attached ESCP as described above pursuant to AB 2514?

Alternatives; Implication of Alternatives:

The Council has the following alternatives:

1. Approve REU's ESCP that is in accordance and complies with the requirements set forth in AB 2514.
2. Recommend modifications to the ESCP.

Fiscal Impact:

There are no new fiscal impacts associated with approving the ESCP. However, review of the procurement targets in 2016 and 2020 will include appropriate analysis of the ESCP's cost-effectiveness as REU evaluates its load, load factor, costs, and operating conditions at those times (2016 and 2020). The current contract with ICE Energy is for \$1.2 million annually and expires in 2017 unless extended.

Conclusion:

AB 2514 requires REU to provide the ESCP to the CEC by October 1, 2014 therefore it would be appropriate for the Council to approve it.

Attachments:

Energy Storage Compliance Plan AB 2514 (DOC)