

DOCKETED	
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Project Title:	2020 Miscellaneous Proceedings.
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Report to City Council

TO: Mayor and City Council

FROM: Marshall Eyerman, Chief Financial Officer

AGENDA DATE: September 19, 2017

TITLE: APPROVE A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DECLINING TO ESTABLISH AN ENERGY STORAGE TARGET FOR MORENO VALLEY UTILITY (MVU)

RECOMMENDED ACTION

Recommendation:

1. Approve Resolution No. 2017-____, a Resolution of the City Council of the City of Moreno Valley, California, declining to establish an Energy Storage target for Moreno Valley Utility (MVU).

SUMMARY

California Public Utilities Code (PUC) Section 2836 requires publicly owned utilities to evaluate the use of energy storage as an element of their power supply plans and consider establishing an energy storage procurement target every three years.

On September 23, 2014, the City Council adopted Resolution 2014-77, declining to establish a procurement target for energy storage for Moreno Valley Utility because the available options of energy storage systems were not cost-effective or did not meet the needs of the utility.

This report recommends declining to establish a procurement target for energy storage because the available options of energy storage systems are still not cost effective. This report also recommends that staff be directed to continue implementing energy storage pilot projects and assess their cost-effectiveness and ability to meet the needs of the utility.

This item was presented to the Utilities Commission on August 23, 2017.

DISCUSSION

Energy Storage systems absorb energy, store it for a period of time, and then release it. Storage can provide flexibility for times when the utility's supply and demand for electricity are not in balance. They are of most value when the utility needs to provide electricity to customers during peak hours or where there is a need to smooth out generation delivery patterns from generating facilities such as wind or solar, which are subject to variable weather conditions. The most common sources of storage include hydroelectric facilities, rechargeable batteries, and thermal energy storage. MVU has worked with Southern California Public Power Authority (SCPPA) to explore storage options that might be of value to MVU operations. The following is an evaluation of some of the options.

Thermal Energy Storage

MVU has installed fifteen (15) Ice Bear units, which creates ice at night and uses that ice to cool buildings during the day. The units have provided some load reduction during peak hours. Staff is reviewing potential locations to test the Ice Bear unit designed for residential applications, and will evaluate the potential for an incentive in the future once the smart meter deployment project is complete.

Battery Energy Storage

Battery storage systems are charged during periods of low demand to be used to level the load during peak times and will most likely be of considerable value to MVU given the amount of solar generation on the system. Traditional batteries are still expensive, have high maintenance costs, and limited lifespans. Generally, the technologies are not yet cost-effective for MVU to deploy on a large scale basis. However, a pilot project involving the installation of a 90kW battery storage unit will be included as part of the solar carport project at City Hall. The solar carport project is currently under design, and is scheduled for completion in February 2018. Staff is also considering a research, development, and demonstration project involving the installation of utility scale battery storage at one of MVU's substations.

Hydroelectric Energy Storage

Hydroelectric energy storage uses the gravitational force of falling or flowing water to produce electrical power for storage. The cost of hydroelectricity and hydroelectric energy storage is relatively low but requires close proximity to a water source which does not make it a viable option for MVU.

Customer Options

MVU has a relatively large amount of customer-owned solar facilities in its service area (over 6 MW) and expects more such facilities to be installed. Staff is developing an inspection and approval process for customers who wish to install battery storage units with their solar systems. These customers will likely maximize the benefits from the

addition of battery units when the utility completes installation of smart meters throughout its service territory and establishes residential time-of-use rates.

Staff has concluded that the available options of energy storage systems are currently not cost-effective or do not currently meet the needs of the utility. Nonetheless, research, development, and demonstration projects involving the use of battery storage systems will be considered and implemented so that staff can evaluate the potential inclusion of energy storage as an element of MVU's power supply plan. This is consistent with the conclusions made by other small publicly owned utilities. The City's decision to decline establishing a procurement target must be reevaluated at least once every three years and be reported to the California Energy Commission. Staff will continue reviewing energy storage technology to determine if issuing an RFP or establishing a procurement target in the future would be appropriate and will return to the City Council with a recommendation no later than October 1, 2020.

ALTERNATIVES

1. Approve Resolution No. 2017-XX, a Resolution of the City Council of the City of Moreno Valley, California, declining to establish an energy storage target for Moreno Valley Utility. *This provides time to continue to evaluate the cost-effectiveness of various energy storage technologies as they evolve.* Staff recommends this alternative.
2. Do not approve Resolution No. 2017-XX, a Resolution of the City Council of the City of Moreno Valley, California, declining to establish an energy storage target for Moreno Valley Utility. *Staff does not recommend this alternative, as the utility would not be compliant with State Law, under California Public Utilities Code Section 2836.*

FISCAL IMPACT

There is no fiscal impact associated with this Resolution. Specific budget appropriations will be brought before the City Council for approval as projects are developed utilizing energy storage technologies.

NOTIFICATION

Publication of the Agenda.

PREPARATION OF STAFF REPORT

Prepared By:
Jeannette Olko
Electric Utility Division Manager

Department Head Approval:
Marshall Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

Positive Environment. Create a positive environment for the development of Moreno Valley's future.

CITY COUNCIL STRATEGIC PRIORITIES

1. Economic Development
2. Public Safety
3. Library
4. Infrastructure
5. Beautification, Community Engagement, and Quality of Life
6. Youth Programs

Objective 4.1: Develop a Moreno Valley Utility Strategic Plan to prepare for the 2020 expiration of the ENCO Utility Systems agreement.

ATTACHMENTS

1. Resolution Energy Storage target 09192017

APPROVALS

Budget Officer Approval	<u>✓ Approved</u>	8/29/17 5:49 PM
City Attorney Approval	<u>✓ Approved</u>	8/30/17 11:21 AM
City Manager Approval	<u>✓ Approved</u>	9/07/17 12:51 PM

RESOLUTION NO. 2017-____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
MORENO VALLEY, CALIFORNIA, DECLINING TO
ESTABLISH AN ENERGY STORAGE TARGET FOR
MORENO VALLEY UTILITY (MVU)

WHEREAS, in accordance with California Public Utilities Code (“PUC”) Section 2836(b), the Moreno Valley Utility initiated a process to determine appropriate targets, if any, for the utility to procure viable and cost-effective energy storage systems to be achieved by December 31, 2016, and December 31, 2020; and

WHEREAS, as part of that process, staff reviewed technical materials on various types of energy storage devices; reviewed cost-effectiveness evaluations performed by other publicly-owned utilities and the California Public Utilities Commission; and evaluated the applicability of energy storage devices to existing and future Moreno Valley Utility operations.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

1. Finds that no cost-effective technologies and/or applications have been identified for Moreno Valley Utility operations.
2. Sets no target for energy storage procurement by the Moreno Valley Utility.
3. Directs staff to:
 - a. Continue evaluating storage options as various relevant proceedings, initiatives, and policies in the State progress, including the evaluation of renewable flexible capacity and integration costs by the California Energy Commission and California Independent System Operator and the California Public Utility Commission’s Interconnection of Distributed Energy Resources and Improvements to Rule 21.
 - b. Evaluate the viability of customer programs providing incentives for adoption of storage options.
 - c. Plan a competitive procurement process for storage solutions as soon as it appears that storage may be cost effective.
4. Determines that, not less than once every three years, the City Council shall reevaluate its determinations made pursuant to PUC Section 2836.

APPROVED AND ADOPTED this 19th day of September, 2017.

Mayor of the City of Moreno Valley

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

Resolution No. 2017-2
Date Adopted: September 19, 2017

Attachment: Resolution Energy Storage target 09192017 (2758 : APPROVE A RESOLUTION DECLINING TO ESTABLISH AN ENERGY STORAGE

RESOLUTION JURAT

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) ss.
CITY OF MORENO VALLEY)

I, Pat Jacques-Nares, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2017-____ was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 19th day of September, 2017 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

CITY CLERK

(SEAL)

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Resolution No. 2017-____
Date Adopted: September 19, 2017

Attachment: Resolution Energy Storage target 09192017 (2758 : APPROVE A RESOLUTION DECLINING TO ESTABLISH AN ENERGY STORAGE

RESOLUTION NO. 2017-51
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
MORENO VALLEY, CALIFORNIA, DECLINING TO
ESTABLISH AN ENERGY STORAGE TARGET FOR
MORENO VALLEY UTILITY (MVU)

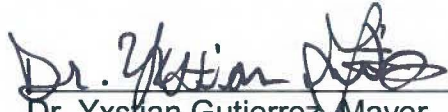
WHEREAS, in accordance with California Public Utilities Code ("PUC") Section 2836(b), the Moreno Valley Utility initiated a process to determine appropriate targets, if any, for the utility to procure viable and cost-effective energy storage systems to be achieved by December 31, 2016, and December 31, 2020; and

WHEREAS, as part of that process, staff reviewed technical materials on various types of energy storage devices; reviewed cost-effectiveness evaluations performed by other publicly-owned utilities and the California Public Utilities Commission; and evaluated the applicability of energy storage devices to existing and future Moreno Valley Utility operations.


NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

1. Finds that no cost-effective technologies and/or applications have been identified for Moreno Valley Utility operations.
2. Sets no target for energy storage procurement by the Moreno Valley Utility.
3. Directs staff to:
 - a. Continue evaluating storage options as various relevant proceedings, initiatives, and policies in the State progress, including the evaluation of renewable flexible capacity and integration costs by the California Energy Commission and California Independent System Operator and the California Public Utility Commission's Interconnection of Distributed Energy Resources and Improvements to Rule 21.
 - b. Evaluate the viability of customer programs providing incentives for adoption of storage options.
 - c. Plan a competitive procurement process for storage solutions as soon as it appears that storage may be cost effective.
4. Determines that, not less than once every three years, the City Council shall reevaluate its determinations made pursuant to PUC Section 2836.

APPROVED AND ADOPTED this 19th day of September, 2017.


Dr. Yxstian Gutierrez, Mayor
City of Moreno Valley

ATTEST:


Pat Jacquez Nares, City Clerk
City of Moreno Valley

APPROVED AS TO FORM:


Martin Koczanowicz, City Attorney
City of Moreno Valley

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Pat Jacques-Nares, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2017-51 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 19th day of September, 2017 by the following vote:

AYES: Council Members Marquez, Cabrera, Mayor Pro Tem Baca, and Mayor Gutierrez

NOES: None

ABSENT: None

ABSTAIN: Council Member Giba

(Council Members, Mayor Pro Tem and Mayor)



PAT JACQUEZ-NARES, CITY CLERK

(SEAL)