

VALLEY CLEAN ENERGY ALLIANCE**Staff Report – Item 11**

To: Board of Directors

From: Mitch Sears, Executive Officer
Rebecca Boyles, Director of Customer Care and Marketing
Sierra Huffman, Program and Community Engagement Analyst

Subject: Vehicle-Grid Integration (VGI) Pilot Program

Date: November 10, 2022

RECOMMENDATIONS

1. Adopt a resolution approving Valley Clean Energy's Vehicle-Grid Integration (VGI) Pilot Program in partnership with Sacramento Municipal Utilities District (SMUD) and authorizing the Executive Officer to take actions necessary to participate in the application and Pilot.
2. Approve a budget adjustment of \$125,000 to meet VCE's local match requirements and administrative costs associated with participation in the Pilot.

BACKGROUND

As the importance of enhanced electrification and grid reliability continue to be discussed throughout California, VCE is focused on exploring solutions by developing and implementing a range of Pilot programs, among other actions. VCE and member jurisdictions have been working on the installation of electric vehicle (EV) chargers throughout VCE's service territory through the Sacramento Area Council of Governments (SACOG) grant. VCE launched an electric vehicle rebate program to incentivize local residents to electrify their transportation, funded through its programs fund. Additionally, VCE is running the Agricultural Flexible Irrigation Technology (AgFIT) Pilot, a CPUC-funded Pilot program designed to enhance grid reliability by shifting or reducing agricultural load through hourly price signals and irrigation automation to agricultural customers.

Vehicle-Grid Integration, or VGI, is an emerging solution to challenges involved with increasing the electrification of transportation while also enhancing grid reliability. VGI involves installation of equipment that allows EV owners to charge their vehicle from the grid, but also to use the car battery for electricity storage, and either discharge to their home ("island") or to the grid during times when renewable electricity is scarce and expensive. VGI is sometimes coupled with price signals or managed charging to further incentivize customer load-shifting or reduction. It is estimated that by 2050 VGI could reduce wholesale electricity prices by 0.6–0.7% relative to an equivalent scenario without VGI¹.

SMUD Pilot

SMUD has decided to pursue grant funding under the Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD) Program. Applications are due November 18, 2022. SMUD has hired a third-party grant writing company to help craft the grant application. The US Department of Transportation requires a minimum 20% match and SMUD has committed to the match. SMUD program staff approached VCE staff (as well as other CCAs), to vet interest in participating in the Pilot alongside SMUD, thereby widening the geographical reach of the Pilot.

After consideration of the potential costs and benefits, VCE staff is recommending that VCE participate in the Pilot, conditional on an 80% funding match (VCE's contribution would be 20%), secured by the grant application with SMUD. Staff has completed a draft Program Design/Implementation Form and analyzed the Pilot program concept with VCE's Program Scoring Criteria. Based on this analysis, staff has determined that the Pilot is aligned with current Programs and Strategic Plan priorities.

PROGRAM DESIGN

SMUD's VGI Pilot is designed with priorities such as customer bill savings and reducing on-peak demand. SMUD is proposing a tiered incentive structure giving income-qualified customers a higher incentive amount that would cover the entire cost of equipment and installation as well as a monthly bill credit (up to \$10,000). Standard applicants could receive (for example) a \$2,500 incentive toward equipment and installation and a monthly bill credit over the 3-year Pilot. VCE's target for the Pilot would be up to 50 vehicles (5 of which would be income-qualified). Metrics employed to measure outcomes would include the number of participating vehicles and amount of kWh shifted or reduced (compared to usage history where data is available). VCE is exploring the potential of including vehicles other than cars, but that inclusion would not materially affect the budget or match requirement.

FINANCIAL IMPACT

Total proposed Pilot budget is a one-time \$125,000 (20% match) contribution from VCE, and Pilot participation is conditional on receipt of 80% match funding from the ATTIMD grant. Funds would cover equipment, installation, and ongoing bill credits while the Pilot is active. Administrative expenses are also included in this budget, and VCE may have the opportunity to work with SMUD staff on administration of this Pilot, keeping administrative costs low.

CONCLUSION

Staff is recommending approval of the resolution and budget adjustment as outlined in this staff report.

Attachment:

Resolution 2022-XXX

VALLEY CLEAN ENERGY ALLIANCE**RESOLUTION NO. 2022- _____****A RESOLUTION OF THE BOARD OF DIRECTORS OF VALLEY CLEAN ENERGY ALLIANCE APPROVING PARTICIPATION IN THE VEHICLE-GRID INTEGRATION (VGI) PILOT PROGRAM IN PARTNERSHIP WITH SACRAMENTO MUNICIPAL UTILITIES DISTRICT (SMUD) AND AUTHORIZE THE EXECUTIVE OFFICER IN CONSULTATION WITH LEGAL COUNSEL TO TAKE ACTIONS NECESSARY TO PARTICIPATE IN THE APPLICATION AND PILOT PROGRAM.**

WHEREAS, the Valley Clean Energy Alliance (“VCE”) was formed as a community choice aggregation agency (“CCA”) on November 16, 2016, under the Joint Exercise of Power Act, California Government Code sections 6500 et seq., among the County of Yolo, and the Cities of Davis and Woodland, to reduce greenhouse gas emissions, provide electricity, carry out programs to reduce energy consumption, develop local jobs in renewable energy, and promote energy security and rate stability in all of the member jurisdictions. The City of Winters, located in Yolo County, was added as a member of VCE and a party to the JPA in December of 2019; and,

WHEREAS, throughout California, the importance of enhanced electrification and grid reliability is being discussed and VCE is focused on exploring solutions by developing and implementing a range of pilot programs; and

WHEREAS, VCE and its member jurisdictions have been working on the installation of electric vehicle (EV) charges throughout VCE’s service territory through the Sacramento Area Council of Governments (SCACOG) grant; and

WHEREAS, VCE launched an electric vehicle rebate program to incentivize local residents to electrify their transportation and an Agricultural Flexible Irrigation Technology (AgFIT) pilot program designed to enhance grid reliability by shifting and reducing agricultural load; and

WHEREAS, VCE is partnering with Sacramento Municipal Utilities District (SMUD) to pursue grant funding under the Advance Transportation Technologies and Innovative Mobility Deployment (ATTIMD) Program, which is designed to increase the electrification of transportation while enhancing grid reliability known as Vehicle-Grid Integration (VGI); and,

WHEREAS, the total proposal Pilot budget is a one-time \$125,000 (20% match) contribution from VCE, and Pilot participation is conditioned on receipt of 80% match funding from the ATTIMD grant.

NOW, THEREFORE, the Board of Directors of the Valley Clean Energy Alliance resolves as follows:

1. Approves Valley Clean Energy’s participation in Valley Clean Energy’s Vehicle-Grid Integration (VGI) Pilot Program in partnership with Sacramento Municipal Utilities District (SMUD);
2. Authorizes the Executive Officer, in consultation with legal counsel, to take actions necessary to participate in the application and pilot program.

PASSED, APPROVED AND ADOPTED, at a regular meeting of the Valley Clean Energy Alliance, held on the ____ day of _____, 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Jesse Loren, VCE Chair

Alisa M. Lembke, VCE Board Secretary