VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 9

TO: Community Advisory Committee

FROM: Gordon Samuel, Assistant General Manager & Director of Power Services

SUBJECT: CC Power Tumbleweed Energy Storage Project

DATE: January 20, 2022

Recommendation

1. Recommend that VCE participate in the California Community Power (CC Power) Tumbleweed Energy Storage Project.

Background

Joint CCA Request for Information and Offers

In June 2020, Valley Clean Energy along with 10 other CCAs issued a request for information (RFI) from long duration storage (LDS) technology providers and project developers (LDS >=8hrs). The information collected through the RFI was used to develop a request for offers (RFO). This RFO was issued on October 15, 2020, and bids were due on December 1, 2020.

The joint CCAs received a robust response with 51 entities submitting offers representing over 9,000 MW. In collaboration with staff from the participating CCAs, these projects were evaluated through a two round evaluation process. Projects were scored based on value to the CCAs, locational value, development status, project viability and ability to meet resource adequacy requirements, technology viability, project team experience, compliance with workforce policy and environmental impact. The top 17 projects were moved to a second round of evaluation. All 17 projects were sent a follow-up questionnaire on labor, environmental and developer experience. Developers representing non-Li-Ion projects (such as: Emerging technologies defined as non-Li-Ion including 2nd life EV, Gravity, Hydrogen, Liquid Air, Compressed Air, Iron Redox Flow, and Pumped Storage Hydro) were interviewed about their project and technology as well.

Formation of CC Power

In 2020, a group of CCAs came together to discuss forming a joint powers authority (JPA) called California Community Power (CC Power) to leverage their combined buying power to provide cost effective joint services, programs, and procurement of energy resources and products. In February 2021, Valley Clean Energy's Board voted for VCE to become a member of CC Power (topic was presented to the CAC in January 2021). The other CCAs that are members of CC Power include MCE, 3CE, SVCE, SJCE, RCEA, VCE, SCP, EBCE, and CPSF. Once CC Power was formed, CC Power as an organization took over the LDS RFO work that had been underway.

CPUC Mid-Term Reliability Procurement Mandate

On June 24, 2021, the California Public Utilities Commission (CPUC) adopted D.21-06-035. This decision is commonly known as the mid-term reliability (MTR) procurement mandate. It directs load serving entities (LSEs) to collectively procure 11,500 MW of new resources between 2023 to 2026 to meet mid-term grid reliability needs. The requirement is measured as net qualifying capacity (NQC) rather than nameplate capacity. The CPUC issued a report identifying what percent of a technology's nameplate capacity would count toward this requirement. This means that each LSE's nameplate capacity is higher than the requirement identified in the decision. The decision requires that contracts have a term of at least 10 years and that resources be zero-emission or eligible under the California renewable portfolio standard (RPS).

Procurement Category	2023	2024	2025	2026	Total
Zero-emissions generation, generation paired with storage, or demand response resources	-	-	2,500	-	2,500
Firm zero-emitting resources	-	-	-	1,000	1,000
Long-duration storage resources	-	-	-	1,000	1,000
Remaining New Capacity Required			-	-	7,000
Total Annual Net Qualifying Capacity (NQC) Requirements	***2,000***	***6,000***	***1,500***	***2,000***	***11,500***

One of the categories identified in the decision was long duration energy storage. Once this decision was issued, the CCAs focused the RFO negotiations to ensure that the identified project and contract terms would allow the project to count toward each of the CCAs obligations under this decision.

The requirements were allocated to each LSE based on load share. Under the decision, VCE was allocated a requirement for 4 MW of LDS NQC, which is approximately equivalent to 5.1 MW of nameplate capacity.

Shortlist and Negotiations

Staff conducted an extensive analysis of projects submitted through the LDS RFO to identify a shortlist of projects. The Tumbleweed project was determined to be in the top tier of projects that would provide the most value to the CCAs. This shortlist was identified in June 2021 and at that time CC Power entered exclusivity with shortlisted projects and began negotiations.

CC Power conducted a solicitation process to identify counsel and a key negotiator to represent CC Power in its negotiations with counterparties identified through the LDS RFO process. CC Power retained Keyes and Fox and Gridwell Consulting to conduct the negotiations.

Representatives from each of the participating CCAs met with the CC Power General Manager and the negotiating team on a weekly basis to receive updates on negotiating status and provide input to the negotiating process.

Overview of Project

Project Name	Tumbleweed Energy Storage, LLC
Technology	Li-Ion Storage
Storage Capacity	69 MW / 552 MWh
Commercial Operation Date	6/1/2026
Developer	REV Renewables, a subsidiary of LS Power
Location	Kern County, CA

The Tumbleweed project is a 69 MW / 552 MWh lithium-ion battery storage facility located near Rosamond, CA in Kern County. The Commercial Operation Date is June 1, 2026. VCE's share of this project is 2.86 MW / 22.88 MWh

The project has an executed interconnection agreement with Full Capacity Deliverability Status (FCDS) for the energy storage component, meaning it will provide resource adequacy attributes in addition to energy benefits. The project will interconnect to SCE's Whirlwind substation. The project is sited in an area with multiple operating solar and wind generation resources. Given the concentration of existing energy resources, Tumbleweed is considered an "in-fill" development. The project is expected to start construction by December 31, 2025.

Under the contract, CC Power will pay for the use of the storage project at a fixed-price rate per kW-month, with no escalation, for the full term of the contract (15 years). CC Power is entitled to all product attributes from the facility, including energy arbitrage, ancillary services, and resource adequacy.

Developer

The project is being developed by REV Renewables, which is a subsidiary of LS Power. LS Power was founded in 1990 and is a development, investment and operating company focused on the power and energy infrastructure sector. LS Power has developed more than 660 miles of high voltage transmission, and developed, constructed, managed, or acquired more than 45,000 MW of power generation, including utility-scale solar, wind, hydro, natural gas-fired and battery energy storage projects. Additionally, LS Power actively invests in distributed energy resources and other clean energy platforms, such as CPower Energy Management, Endurant Energy, EVgo and Rise Light & Power, as well as renewable fuels.

LS Power formed REV Renewables to accelerate investment in renewable energy and storage technologies. REV owns 1.9 GW of operating energy storage across the U.S. including 600MW of operating battery energy storage. REV has an additional 1.3 GW of battery energy storage in development.

Environmental Review

Each bidder provided a geospatial footprint of their project. During the evaluation period, CC Power studied the geospatial footprint of the project to evaluate whether the project is located in a restricted or high conflict area for renewable energy development. These areas include but are not limited to:

- Protected areas at the federal, state, regional, local level (e.g. County-designated conservation areas, BLM Areas of Critical Environmental Concern, critical habitat for listed species, national, state, county parks, etc.).
- Identified and mapped important habitat and habitat linkages, especially for threatened and endangered species (either state or federally listed).

Further, projects that are located in areas designated for renewable energy development or in areas that are not suitable for other developmental activities, such as EPA re-power sites, receive positive environmental scores.

For this project, the analysis showed that the project was not located in a protected area based on the USGS Protected Areas Database[1] (PAD-US). Additionally, the project is not located in an area not suitable for renewable energy development as identified by the Renewable Energy Transmission Initiative (RETI)[2].

Workforce Requirements

The project has committed that the construction of the project will comply with California prevailing wage requirements and be conducted using a project labor agreement, community workforce agreement, work site agreement, collective bargaining agreement, or other similar agreement providing for terms and conditions of employment with applicable labor organizations.

Participating CCAs

Seven of the CC Power CCAs are participating in this contract. The CCAs and their shares of the project are identified in the table below. The project's capacity was allocated to the CCAs based on their obligation under the CPUC MTR procurement mandate.

CCA	CPUC Capacity Obligation MW NQC	Entitlement Share	Tumbleweed Allocation (MW)	Tumbleweed Allocation NQC	Credit Rating
CPSF	15.5	16.06%	11.08	8.67	Moody's A2
PCE	19	19.69%	13.59	10.62	Moody's Baa2 Fitch BBB+

[1] USGS PAD-US: https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap/science/protected-areas

[2] RETI: https://reti.databasin.org/

RCEA	3.5	3.62%	2.50	1.95	-
SJCE	21.5	22.28%	15.37	12.02	-
SVCE	20.5	21.25%	14.66	11.47	Moody's Baa2 S&P A
SCPA	12.5	12.95%	8.94	6.99	S&P A
VCE	4	4.15%	2.86	2.24	-
Total	**96.5**	**100.00%**	**69.00**	**53.96**	

Strategic Plan

The Tumbleweed project supports the following objectives in VCE's strategic plan:

Goal 2: Manage power supply resources to consistently exceed California's Renewable Portfolio Standard (RPS) while working toward a resource portfolio that is 100% carbon neutral by 2030

-2.3 Objective: Deploy storage and other strategies to achieve renewable, carbon neutral, resource adequacy, and resiliency objectives.

Discussion/Conclusion

VCE's expected share of the Tumbleweed project is approximately 4% of the project which is equivalent to 2.86 MW nameplate capacity or 2.24 MW NQC. This will satisfy approximately 56% of the LDS mandate assigned to VCE.

Staff will be asking the Board to approve VCE's participation in the Tumbleweed project at the January 27, 2022 meeting. In addition, each participating CCA is asking its Board for cushion to allow them to proceed with this project in case there are changes in share allocation due to any CCA not receiving their Board's approval (note: VCE will seek approval for up to 5MW). This will also cover situations where there is a step-up event. Staff anticipates that all CCA's will receive approval to participate, but in the event one or more do not, this buffer will help avoid the need to go back to each of the CCA Boards for re-approval.

The Tumbleweed project is the first project for CCAs to procure together through CC Power, and the first LDS project contract to be executed to meet the MTR procurement mandate. CC Power is actively negotiating another LDS project, which will satisfy the remaining MTR need and staff plans to bring that project to the CAC and Board in the very near future.