VALLEY CLEAN ENERGY ALLIANCE COMMUNITY ADVISORY COMMITTEE

Staff Report – Item 7

TO: Community Advisory Committee

FROM: Mitch Sears, Interim General Manager

Gordon Samuel, Assistant General Manager & Director of Power Services

SUBJECT: 2021 Procurement Plan, Including Directives and Delegations for 2021 Power

Procurement Activities

DATE: December 17, 2020

BACKGROUND AND ANALYSIS

On December 12, 2019, the Board approved VCE's Procurement Guide which established the procurement plan for 2020 forward.

The intent of this staff report is to update the approval of delegations necessary for VCE and SMUD staff to continue procurement activities on behalf of VCE's power supply portfolio. This update provides a high-level overview of the products necessary to meet compliance obligations and maintain a balanced power portfolio while meeting power supply portfolio targets set by the VCE Board.

Principles Guiding Procurement and Delegations of Authority

The procurement plan and delegations of authority will be guided by the following principles and allow VCE and SMUD staff to:

- Meet VCE's compliance, regulatory, and business practice requirements under the California Public Utilities Commission (CPUC), California Independent System Operator (CAISO), and other relevant regulatory agencies
- Satisfy the power supply portfolio targets set by the VCE Board
- Minimize the potential risk exposure of the portfolio, according to practices defined in VCE's Wholesale Energy Risk Manual
- Provide the appropriate amount of administrative flexibility for staff to carry out procurement actions

Product Categories

Resource Adequacy

As a CPUC jurisdictional Load Serving Entity, VCE is required to meet the compliance obligations of the Resource Adequacy (RA) program. The RA program ensures sufficient resources are available to support the anticipated demand in California. The CPUC along with CAISO administer the program and define the requirements necessary to meet reliability standards. VCE is allocated its share of obligations based on its load ratio. The delegation for this product allows VCE to meet its RA obligations, support reliability of the grid, and avoid financial penalties in a timely manner.

Renewable Energy

CPUC sets minimum renewable energy requirements under its Renewable Portfolio Standards (RPS) program. Along with meeting any annual renewable targets set by the Board, VCE is obligated to adhere to required renewable percentages over the CPUC-defined compliance periods. Some of this renewable energy obligation will be met with Power Purchase Agreements (PPAs) for resources that are still under construction. The rest of the requirements can be met with short term purchases of RPS-qualified energy from existing resources in the market. The delegation approvals are designed to allow staff to procure around the uncertain new resource online dates to meet renewable energy portfolio targets.

Carbon-Free Energy

Carbon-Free energy is a voluntary product that reduces the carbon content of VCE's power supply. This comes mainly from large-hydro generation resources that do not qualify as Renewable under the RPS program. The delegation for this product allows staff to procure enough carbon-free energy to meet the target set by the Board, taking into consideration the uncertainty of annual PG&E carbon-free allocations.

Price Hedging Energy

Purchasing energy on a forward basis allows VCE to fix some of its power supply costs ahead of more volatile and uncertain spot market prices. A procurement milestone is set to ensure the targeted amount of energy hedging is completed in a timely manner. Under VCE's Enterprise Risk Management Policy, VCE's Enterprise Risk Oversight Committee (EROC) reviews and provides guidance to staff on the timing and execution of the hedging strategy to meet procurement directives and minimize budget exposure.

CAISO Market Energy and Congestion Revenue Rights

CAISO Market Energy is scheduled for VCE daily into the Day Ahead Market, as required by the CAISO, based on daily forecasts of VCE hourly wholesale loads. SMUD staff currently purchase and sell energy on a daily basis to maintain balance between forecasted demand and supply. This practice will be evaluated based on actual benefits and risk tolerances to determine if the

practice should be maintained or modified. The VCE EROC will assess evaluations and approve any changes to this practice along with the hedging strategy.

Congestion Revenue Rights (CRRs) are financial instruments allocated by the CAISO to Load Serving Entities for the purpose of hedging the cost of transmission congestion between generation sources and load. Although CRR portfolio management can be quite complex, with auction mechanisms involving multiple hubs on the system, this delegation allows VCE's portfolio manager to only nominate CRRs that are directly related to VCE's supply portfolio. VCE is restricted to participation in the allocation process that does not involve price bidding or speculation.

Portfolio Composition Approach

VCE's portfolio management strategy is evolving as the portfolio matures. VCE has signed multiple long-term renewable PPAs, contributing to the renewable composition of the California grid. Renewable PPAs bring a level of uncertainty regarding construction completion and online dates, as well as annual output. Whereas VCE's early procurement actions focused primarily on firm volume deliveries from existing generation assets, VCE will be the off-taker of variable output resources under the long-term agreements. Once all PPA assets are online, VCE anticipates exceeding renewable targets set by the California RPS program. But the uncertainty during the transition to new resources complicates the achievement of internal portfolio targets. Irrespective, VCE is required to achieve the renewable target for the California RPS program compliance period and is on course to meet these minimum requirements. The upcoming RPS compliance period is 2021-2024.

PG&E's carbon-free allocation process will contribute to VCE's carbon-free portfolio content in the form of large hydro resources paid for by VCE customers in the Power Charge Indifference Adjustment (PCIA). However, the exact volumes of these resources will not be certain until after the calendar year is complete.

Based on VCE's current financial outlook, the Board set minimum targets of 10% renewable, 20% carbon-free for 2021. VCE staff estimate that renewable PPAs could contribute 20% renewable composition in 2022, and allocations could result in a 30% carbon-free (overall) 2022 composition. Staff is recommending that specific renewable or carbon-free targets for 2022 not be set at this time. Setting internal targets at this time could result in over-procurement if PPA resources come online earlier than expected. Therefore, staff believes it would be prudent for VCE to retain the flexibility to procure short-term RECs to meet RPS compliance obligations if PPA power deliveries are delayed for any reason (e.g. supply chain disruptions). When VCE's finances are reassessed on the next fiscal year cycle, 2022 portfolio targets could be added at that time. Based on these factors, staff is recommending flexibility to achieve compliance without imposing additional targets during the transitional year from short-term RECs to long-term PPAs.

Procurement Directives

Taking into account the considerations outlined in the sections above, Table 1 shows the specific Procurement Directives and Delegations recommended for 2021.

Table 1. 2021 Procurement Directives

| Valley Clean Energy Power Procurement Directives and Delegations for Calendar 2021 | | | | | |
|--|----------|----------------------------|--|----------------------|--|
| Product | For Year | Procurement Milestone Date | Cumulative Percentage Procured by Milestone Date | Delegated To | Notes |
| CAISO Market Energy | | | | | |
| CAISO Market Energy | 2021 | Daily | 100% | SMUD | Procure Day Ahead and Imbalance Energy for 100% of VCE wholesale load. |
| Congestion Revenue Rights | | | | | |
| Congestion Revenue Rights | 2021 | Monthly During Year | Up to 100% | SMUD | Request monthly allocations, if economic, as approved by VCE AGM. |
| Congestion Revenue Rights | 2022 | October 31, 2021 | Up to 100% | SMUD | Request annual and/or quarterly year ahead allocations, if economic, as approved by VCE AGM. |
| Price Hedging Energy | | | | | |
| Price Hedging Energy | 2021 | Daily/Balance of Month | TBD | SMUD | Daily hedging strategy to be revisited, contingent upon analysis of Daily and/or Balance of Month hedging efficacy, changes upon approval of EROC. |
| Price Hedging Energy | 2022 | December 31, 2021 | 100% | SMUD | Quantity and timing contingent upon review by the VCE EROC of forward market power prices/trends. |
| | | Procurement | Cumulative Percentage Procured | Delegated | |
| Product | For Year | Milestone Date | by Milestone Date | Delegated To | Notes |
| Renewable Energy | | | | | |
| Renewable Energy | 2021 | September 30, 2021 | 100% | SMUD | True up procurement based upon actual loads/updated load forecast. |
| Renewable Energy | 2022 | December 31, 2021 | 100%* | SMUD | Minimal short term renewable procurements anticipated, based upon expected long term renewable PPA deliveries. Once greater certainty regarding renewable online dates, procure short term PCC1 power as approved by GM. |
| Large Hydro Energy | | | | | |
| Large Hydro Energy | 2021 | July 1, 2021 | 100% | SMUD | 100% of the forecast need for Large Hydro. |
| Large Hydro Energy | 2022 | December 31, 2021 | up to 100% | SMUD | Up to 100% of the forecast need for Large Hydro, based upon pricing and availability, as approved by VCE GM. Only needed if VCE sets 2022 carbon-free portfolio target that exceeds expected PG&E allocation volume. |
| Resource Adequacy Capacity | | | | | |
| Resource Adequacy Capacity | 2021 | October 31, 2021 | 100% | SMUD | Procure for remaining monthly RA deficiencies and sell monthly RA surpluses, as approved by GM. |
| Resource Adequacy Capacity | 2022 | October 31, 2021 | 100% | SMUD | All RA products forecast, including some provision for RA from possible CEC Load Forecast adjustments or Local RA obligation increases, required to achieve compliance by October 31, 2021 for 2022. Procurement amount may exceed 100% in total for year to insure that all months achieve at least 100% compliance. |
| Resource Adequacy Capacity Note: Procurement milestone de | 2023 | October 31, 2021 | Up to 100% | SMUD AUD delegation | Including RA anticipated from the long term renewables under contract, but excluding possible RA from CEC load forecast adjustments, upon approval of GM. Whether to proceed based upon decision of VCE EROC and in consideration of CPUC requirement for multi-year procurement and VCE strategy related to 2023 Central Procurement Entity transition. |

Note: Procurement milestone dates represent targets but do not represent expiration of SMUD delegation. Where necessary to achieve compliance, procurement is approved under this delegation until the next calendar year delegation is approved by the Board of Directors.

NEXT STEPS

Staff will be presenting this Plan to the Board in January and recommending the Board to adopt a resolution approving:

- 1. The 2021 Procurement Plan.
- 2. Directives and delegations to SMUD for procuring portions of VCE's power portfolio for calendar year 2021 through 2023.
- 3. The elimination of specific portfolio renewable and carbon-free targets in 2022 to improve procurement and financial flexibility as long-term renewable projects come online.