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REPORT TO COUNCIL

SUBJECT

Action on Adoption of Silicon Valley Power’s 2018 Integrated Resources Plan

BACKGROUND

Senate Bill 350 (Chapter 547, Statutes of 2015) (SB 350) requires publicly owned utilities with an average annual load greater than 700 gigawatt-hours, in the 2013 to 2016 period, to adopt Integrated Resource Plans (IRP) by January 1, 2019, submit them to the California Energy Commission (CEC) by April 30, 2019, and update them at least once every five years thereafter. Based on historical data, 16 public utilities are required to file an IRP. The City of Santa Clara, dba Silicon Valley Power (SVP) is one of those utilities, with a three year average load of 3,390 gigawatt-hours annually. The CEC is required to review IRPs for consistency with Public Utilities Code section 9621 and recommend corrections to deficiencies in the plans. The Energy Commission formally adopted guidelines in August 2017, and has adopted multiple revisions since with the latest revised guidelines in October 2018.

IRPs are electric system planning documents that lay out the resource needs, policy goals, physical and operational constraints, and general priorities or proposed resource choices of an electric utility, including customer-side preferred resources. These plans will provide a framework for the CEC to evaluate how utilities have chosen to align with greenhouse gas (GHG) emission reduction targets as well as energy and other policy goals outlined in SB 350, including but not limited to:

- Reductions in electricity sector GHG emissions commensurate with economy-wide reductions of 40 percent below 1990 levels by 2030;
- A Renewables Portfolio Standard of 50 percent by 2030; and
- Energy efficiency, storage, vehicle electrification policy goals.

SVP’s IRP must be designed to comply with GHG emissions reduction targets for the electricity

sector established by the California Air Resources Board (CARB), in coordination with the California Public Utilities Commission and the CEC. On September 10, 2018, SB 100 was signed into law, moving the renewable energy resource procurement requirement from 50 percent to 60 percent by 2030.

The law further requires that SVP consider the role of existing renewable generation, grid operational efficiencies, energy storage, and distributed energy resources, including energy efficiency as part of ensuring that SVP meets energy and reliability needs. SVP must consider how to meet needs at the hour of peak demand of electricity, excluding demand met by variable renewable generation directly connected to a California balancing authority, while reducing the need for new electricity generation resources and new transmission resources in achieving the state's energy goals at the least cost to customers.

DISCUSSION

SVP's IRP is a comprehensive plan for developing a portfolio of power supply resources to meet the environmental regulations, achieve high reliability, and maintain low priced electricity service to customers through 2030. The IRP meets the requirements of SB 350 and outlines compliance with SB 100. The IRP discusses current and anticipated California regulatory and policy changes facing SVP and the electric utility industry. Additionally, SVP's IRP presents the analyses conducted and underlying assumptions, and outlines a resource plan to reliably and affordably meet customers' energy needs through December 31, 2030.

SVP Outreach:

The stakeholder process began with SVP's Strategic Planning process launched in the spring of 2018. Stakeholders included large customers, local businesses, the community at large, and employees. In the summer and fall of 2018, SVP held additional IRP specific meetings with interested stakeholders including residential and commercial customers. SVP utilized the City's Open Hall platform to survey additional customers for input and insight on powering their energy future. The survey ran from June to September 2018.

The survey indicated the following electric service priorities according to the 216 responses (in order of highest preference):

- High reliability (keeping the lights on and avoiding blackouts)
- Affordable Rates
- Minimizing Environmental Impacts
- Quality of Customer Service

The survey respondents indicated their desire to have SVP prioritize in the IRP design keeping costs down (44.4% of respondents) and exceeding the compliance requirements (25.6%). Many free-response comments were supportive of reducing SVP's carbon footprint through additional renewable resource purchases.

IRP Highlights:

2030 GHG Target

The retirement of SVP's interest in the San Juan Coal Generation Station and the cessation of the Graphic Packaging co-generation plant power purchase agreement both in December 2017 resulted in a combined average annual GHG reduction of 434,983 metric tons carbon-dioxide equivalent

(MTCO₂e). This gives SVP a great start at attaining the newly assigned, utility specific GHG emission limit target for 2030.

As set by CARB, SVP's GHG emission limit is targeted to be between 275,000 to 485,000 MTCO₂e in total in 2030, a 0.915 percent share of electricity sector emissions. Based on SVP's current portfolio of owned assets, how the assets are currently used, and planned additional procurements, the GHG emissions are projected to be 448,797 MTCO₂e in 2030 which is within the target range. SVP will continue to work on further carbon reductions to our existing natural gas generation facilities, through equipment enhancements that reduce GHG pollutants, and eventual plant retirements as SVP works toward carbon free energy by 2045 in accordance with SB100.

The forecast modeling indicates that SVP has the ability to meet all GHG allowance requirements through 2030 from already procured renewable generation or from previously banked allowances that came from SVP's early action in renewable generation which exceeded minimum requirements.

2030 60% Renewable Portfolio Standard (RPS)

SVP anticipated that the change to the RPS requirement from 50 percent to 60 percent eligible renewables might happen. SVP modelled both scenarios with more focus on the 50 percent requirement as required by SB350. However, after SB 100 was signed into law in September, SVP made the decision to move forward using only the 2030 RPS 60 percent requirement for the IRP. In preparation for the rising RPS, SVP has new renewable contracts coming on line in 2021 (combined 49.5 MW Altamont wind projects and the 40MW Central Valley solar project) and in 2022 (200MW Viento Loco New Mexico Wind Project).

The forecast modeling indicates that SVP has the ability to meet the 2030 RPS 60 percent requirement from the already procured renewable generation or from previously banked renewable energy credits (RECs) due to SVP's early action in renewable generation which exceeded minimum requirements. The models indicate that SVP will start utilizing the banked RECs beginning in 2025 through 2030, as SVP also adds additional generation resources to meet load requirements. SVP modeled only wind and solar as resources to fill procurement gaps in the IRP, however SVP continues to evaluate all viable renewable resources as we move forward. Having the banked RECs gives SVP the ability to choose best fit energy procurement that meets customer needs and priorities including reliability and cost.

Vehicle Electrification, Energy Efficiency, Storage

In accordance with the guidelines, the IRP also addresses other impacts on how utilities plan for the future. SVP continues to plan the needed infrastructure for both electric vehicle (EV) adoption and for the distribution system as the state encourages greater building electrification. The CEC currently projects an estimated 24,000 EVs in use by Santa Clara residents by 2030. SVP has a wide variety of energy efficiency programs that contribute to the State's goal of doubling of energy efficiency by 2030. Finally, SVP continues to explore energy storage opportunities in partnership with our customers.

Disadvantaged Communities

Disadvantaged Communities is a state defined designation resulting from the passage of SB 535 (2012). These defined areas have high amounts of air pollution and vulnerable population, but within Santa Clara it is a low population area. In Santa Clara, the designated Disadvantage Community area is generally zoned industrial and commercial and represents the heart of Santa Clara's economic engine. It includes large industrial, commercial, manufacturing, high tech, and SVP

generation. The pollution is not created solely by these industries. This area is bordered by Highway 101 and the San Jose Airport, with three major expressways crossing in the designated area. The closing of Graphic Packaging co-generation plant has already created air emission reductions though at a cost of jobs. As vehicle electrification gains ground, there should be additional reduction in GHG pollutants and other pollutants that will impact this area.

SB 350 requires SVP's governing board - the Santa Clara City Council - adopt the IRP in substantial form by January 1, 2019. Because the final IRP submittal requires numbers and information from calendar year 2018 to be included in the submission, the final IRP may be submitted to the CEC up until April 30, 2019 with the appropriate updates.

ENVIRONMENTAL REVIEW

The California Environmental Quality Act (CEQA) does not apply to activities that will not result in a direct or reasonably foreseeable indirect physical change in the environment (CEQA Guideline 15061 (b)(3)). The 2018 Integrated Resource Plan does not include the potential for a significant environmental effect and therefore is not subject to CEQA.

FISCAL IMPACT

There is no fiscal impact associated with the approval of the 2018 Integrated Resource Plan.

COORDINATION

This report has been coordinated with the Finance Department and City Attorney's Office.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall Council Chambers. A complete agenda packet is available on the City's website and in the City Clerk's Office at least 72 hours prior to a Regular Meeting and 24 hours prior to a Special Meeting. A hard copy of any agenda report may be requested by contacting the City Clerk's Office at (408) 615-2220, email clerk@santaclaraca.gov <<mailto:clerk@santaclaraca.gov>> or at the public information desk at any City of Santa Clara public library.

RECOMMENDATION

- 1) Adopt Silicon Valley Power's 2018 Integrated Resource Plan in substantial form and for submittal to the California Energy Commission; and
- 2) Authorize the City Manager to submit the final Integrated Resource Plan prior to April 30, 2019.

Reviewed by: John C. Roukema, Chief Electric Utility Officer

Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. Silicon Valley Power 2018 Integrated Resource Plan