DOCKETED	
Docket Number:	18-IRP-01
Project Title:	Integrated Resource Plan
TN #:	230775
Document Title:	COMMENTS ON THE STAFF REVIEW OF SILICON VALLEY POWER'S INTEGRATED RESOURCE PLAN
Description:	N/A
Filer:	System
Organization:	Basil Wong/SVP
Submitter Role:	Public Agency
Submission Date:	11/18/2019 9:10:36 AM
Docketed Date:	11/18/2019

Comment Received From: Basil Wong
Submitted On: 11/18/2019
Docket Number: 18-IRP-01

COMMENTS ON THE STAFF REVIEW OF SILICON VALLEY POWERâ€™S INTEGRATED RESOURCE PLAN

Additional submitted attachment is included below.

STATE OF CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of: Silicon Valley Power Integrated Resources Plan	Docket No. 18-IRP-01

COMMENTS ON THE STAFF REVIEW OF SILICON VALLEY POWER'S INTEGRATED RESOURCE PLAN

The City of Santa Clara doing business as Silicon Valley Power (SVP) appreciates the opportunity to provide comments on the Staff Paper – Review of Silicon Valley Power's 2018 Integrated Resource Plan TN# 229902 (Staff Paper) prepared by the State of California Energy Resources Conservation and Development Commission (CEC). SVP concurs with the results of the staff review of SVP's Integrated Resource Plan but would like to clarify SVP's obligation to offer its generation into the California Independent Systems Operator (California ISO) footprint. Beyond that clarification, we would also like to expand on the Greenhouse-Gas (GHG) accounting methodology that SVP is developing at the request of SVP's customers, and how that better reflects what is likely the true emissions factor of the energy provided to SVP's customers.

I. CLARIFICATION OF SVP'S OBLIGATION TO OFFER GENERATION INTO THE CALIFORNIA ISO

On page 17, under the section heading "System Reliability and Resource Adequacy", the first sentence reads,

> *"SVP uses NCPA as its scheduling coordinator and expects to continue operating within NCPA's agreement with the California ISO, even though it is not obligated to offer its generation into the California ISO's markets."*

SVP request revising the sentence to read

> *"SVP uses NCPA as its scheduling coordinator and expects to continue operating within NCPA's agreement with the California*

> *ISO~~**, even though it is not obligated to offer its generation into the California ISO's markets**~~."*

Certain SVP contracted resources are scheduled in a separate Scheduling Coordinator ID from NCPA and those resources are subject to the California ISO "must offer" requirement and therefore SVP is obligated to offer those resources into the California ISO market.

Under the section heading "Transmission System," the first sentence of the first full paragraph on page 19, reads:

> *"SVP uses its own scheduling coordinator, NCPA, and is not obligated to offer its generation into the California ISO market."*

SVP request revising the sentence to read:

> *"SVP uses **<u>NCPA as one of</u>** its own scheduling coordinators, ~~**NCPA,**~~ and **<u>the SVP related resources under the NCPA Scheduling Coordinator ID are</u>** not obligated to **<u>be offered</u>** ~~**offer its generation**~~ into the California ISO market."*

The clarification in both statements are very important when considering how the California ISO energy markets work, the correlation to the dispatch of resources and the requirement to balance the load with its resources.

II. COMMENTS ON GHG ACCOUNTING METHODOLOGY

While not directly impacting the results of our current IRP, SVP wanted to raise an important point regarding future carbon emissions calculations and how those calculations might affect the future procurement needs of our customers.

Within the California energy policy arena, the relationship between carbon emissions and power generation varies depending on the needs of the energy agencies. CARB calculates carbon emissions as part of its Mandatory Reporting Program and is adjusted to some extent to determine compliance obligations under the state's cap-and-trade program. CAISO calculates emissions to provide information to consumers about net carbon emissions in California, accounting for power that is imported and exported. The Energy Commission with the implementation of Assembly Bill 1110, will soon have utilities provide carbon emissions information tied to the state's Power Content Label.

Although SVP is prepared to comply with whatever regulations the Energy Commission develops as it relates to future Power Content Labels, we note that many of our customers are asking for additional granularity regarding the carbon footprint associated with the power they receive. To those customers, we fully intend to use a more refined carbon emissions calculation that accounts for emissions on an hourly basis.

A. Resources, Load, and Market Dispatch

SVP acquired and continues to acquire resources that best fits our customer's real-time use of electricity and to meet the California procurement requirements of eligible renewables, carbon-free and low carbon resources. SVP optimizes its portfolio of resources which includes selling its resources and purchasing energy from the California ISO market.

Figure 1 shows SVP's hourly market purchases during the month of August 2019 from the California ISO and the associated carbon intensity of the California ISO grid during the same hour. As shown, the majority of SVP's market purchases during the month of August occurred during the hours where the carbon intensity was at its lowest. Therefore, if the carbon intensity is not accounted for on an hourly basis, the application of the default emissions rate would overstate or understate the true emissions factor for the market purchases.

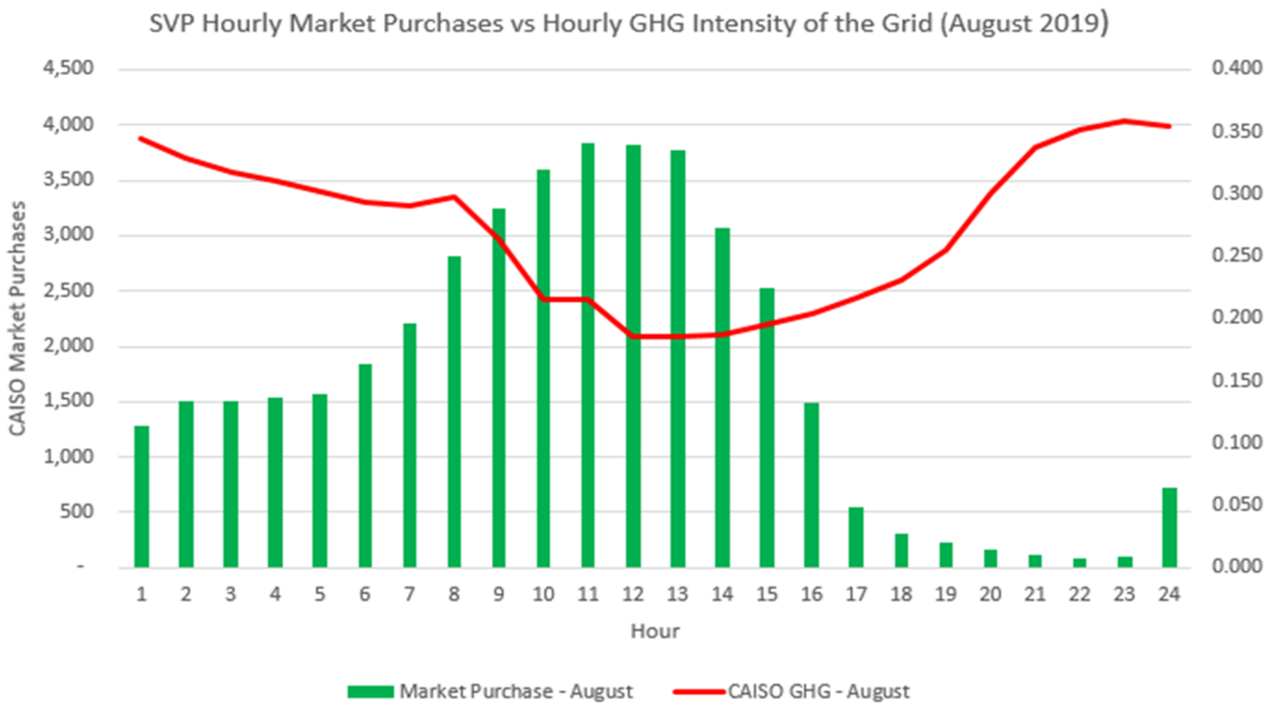

Figure 1 –SVP purchases in the California ISO market – Carbon intensity will vary throughout the day and not a static 0.428 MTCO2 default as in the GEAT Standardized Reporting Tables

The California ISO knows exactly what generation resources are dispatched on a five minutes basis. The California ISO also displays and records the CO2 emissions data of all generation resources in the California ISO balancing area, including imports, on a five minute basis[1]. SVP is working with the California ISO to import the CO2 data into the daily dispatch of SVP resources to develop the true hourly carbon emissions factors for its energy portfolio. This will also allow SVP to separate what resources are dispatched for SVP's load versus what resources are dispatched to the market. SVP is working towards the goal of delivering annual emissions profile based on hourly data by the end of calendar year 2020.

[1] http://www.caiso.com/TodaysOutlook/Pages/emissions.aspx

B. **Industrial/Commercial Customers GHG Accounting – Movement away from annual accounting toward hourly accounting**

The combination of California energy policy and corporate sustainability has driven up the use of renewable energy and renewable energy credits (RECs). Corporations can claim to be using 100% renewable energy on an annual basis by purchasing an equivalent amount of renewable energy or RECs. Corporations[2], learning institutions, community choice aggregators[3], and some utilities are acknowledging that purchasing an equivalent amount of renewable energy or RECs equal to their energy consumption on an annual basis does not necessarily achieve 100% emissions reduction. "To guarantee 100 percent emissions reductions from renewable energy, power consumption needs to be matched with renewable generation on an hourly basis," - Sally Benson, co-director of the Precourt Institute for Energy[4]. Several large SVP customers have requested SVP to provide a carbon emissions factor for its energy consumption based on an hourly emission accounting methodology. We are working with our customers to develop the hourly GHG emissions accounting methodology so they can be compliant with their sustainability goals and reporting.

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[2] Google, Apple, Amazon, Microsoft, Nvidia have announced movements toward hourly emissions accounting

[3] Peninsula Clean Energy has a 2025 goal of hourly load on a time coincident basis: https://www.peninsulacleanenergy.com/goals-and-policies/

[4] When 100% renewable energy doesn't mean zero carbon https://earth.stanford.edu/news/when-100-renewable-energy-doesnt-mean-zero-carbon?gs_ref=wz7EBBbnG3-Email&utm_source=Email&utm_medium=ShareButton&utm_campaign=GetSocial

III. CONCLUSION

SVP appreciates the opportunity to provide this clarification and comments and looks forward to a cleaner future.

Dated: November 13, 2019

Respectfully submitted,

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