DOCKETED	
Docket Number:	20-IEPR-03
Project Title:	Electricity and Natural Gas
TN #:	235998
Document Title:	The City of Santa Clara dba Silicon Valley Power Comments - Commissioner Workshop on Updates to the California Energy Demand
Description:	N/A
Filer:	System
Organization:	The City of Santa Clara dba Silicon Valley Power
Submitter Role:	Public Agency
Submission Date:	12/17/2020 3:54:30 PM
Docketed Date:	12/17/2020

Comment Received From: The City of Santa Clara dba Silicon Valley Power
Submitted On: 12/17/2020
Docket Number: 20-IEPR-03

The City of Santa Clara dba Silicon Valley Power Comments on Docket No 20-IEPR-03

Re: The City of Santa Clara dba Silicon Valley Power (SVP) Comments on the California Energy
Commission Docket No. 20-IEPR-03: Commissioner Workshop on Updates to the California Energy
Demand 2019-2030 Forecast

Additional submitted attachment is included below.

December 17, 2020

California Energy Commission
Docket Office, MS-4
Re: Docket No. 20-IEPR-03
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: The City of Santa Clara *dba* Silicon Valley Power (SVP) Comments on the California Energy Commission Docket No. 20-IEPR-03: Commissioner Workshop on Updates to the California Energy Demand 2019-2030 Forecast

Dear Commissioners:

On August 26, 2020, and December 3, 2020 the California Energy Commission (CEC) conducted the Commissioner Workshops on Plans for Updating the California Energy Demand 2019-2030 Forecast (Workshop) as part of the CEC's 2020 Integrated Energy Policy Report Update (2020 IEPR Update) proceeding. CEC staff reviewed the methodology and inputs used to develop the California Energy Demand 2019-2030 Forecast (IEPR Forecast), including economic indicators, electricity rate projections, and self-generation forecasts. CEC staff also discussed plans for updating the light-, medium-, and heavy-duty vehicle forecasts, including several exploratory scenarios.

The City of Santa Clara *dba* Silicon Valley Power (SVP) appreciates the opportunity to submit comments on the Workshop for consideration by the CEC as it updates the IEPR Forecast, which will guide policy and planning efforts across state agencies and at electric utilities. SVP's comments are summarized here and expanded on further below:

- The CEC should work with other state agencies to develop a process for mid-cycle updates to the IEPR Forecast to better inform short-term planning and the California Independent System Operator (CAISO) Transmission Planning Process (TPP).
- SVP requests that the CEC adopt SVP's updated demand forecast to ensure the rapid load growth being experienced by SVP can be reliably served by the CAISO Controlled Grid which surrounds the SVP transmission system.

I. <u>The CEC should work with other state agencies to develop a process for mid-cycle updates to the IEPR Forecast to better inform short-term planning and the CAISO TPP.</u> While annual updates to the IEPR Forecast drive most long-term planning efforts, the IEPR Forecast is also used to inform short-term planning efforts such as year-ahead Resource Adequacy (RA) planning where mid-cycle updates can provide additional relevant insights. In particular, SVP has a significant amount of load growth from large scale data center development within its service territory. The bulk of this growth is already occurring at an unprecedented pace and is exceeding the timeline/process envisioned in the CAISO TPP where forecasts submitted earlier in the IEPR have become outdated based on recently approved projects.

II. SVP requests that the CEC adopt SVP's updated demand forecast to ensure the rapid load growth being experienced by SVP can be reliably served by the CAISO Controlled Grid which surrounds the SVP transmission system. Since the submittal of SVP's demand forecast on 02/07/2018[1] and updated to include the 2028-2030 forecast outyears on 04/15/2019[2], SVP has undertaken a more refined and thorough assessment of existing, permitted, and planned commercial activity within its service territory. The predominant commercial activity is related to data center development that SVP has broken down into the following three (3) Clusters.

- Cluster 1 – Customer facilities which have active building permits with the City of Santa Clara and have an agreement with the City of Santa Clara for SVP to build electric infrastructure to connect the Customers facilities to the electric grid. Customer facilities with backup generation exceeding 49 MW's also have received a Small Power Plant Exemption (SPPE) from the CEC.
- Cluster 2 – Customer facility plans which have been approved by the City of Santa Clara's Project Clearance Committee to proceed to receiving building permits, are in the process of completing an EIR/CEQA that includes the SPPE from the CEC for facilities with backup generation greater than 49MW's and have a funding agreement with the City of Santa Clara allowing SVP to work with the customer on designing the electric infrastructure required to serve the new load.
- Cluster 3 – Customers which are in the initial stages of planning their development and are working with City of Santa Clara departments. This can include involvement in the City of Santa Clara's Project Clearance Committee, initiating system impact studies with the City of Santa Clara's storm, sewer, traffic, and electric systems.

These three project clusters are incorporated into SVP's demand forecast through continuous customer outreach and monitoring. Please see the two attachments that describe how these clusters are incorporated into SVP's updated demand forecast.

[1] CEC Docket: 17-IEPR-03, TN#222467
[2] CEC Docket: 19-IEPR-03, TN#227649

III. Conclusion

SVP wants to thank the California Energy Commission staff for working with us to gain understanding of the unique situation SVP is experiencing resulting from the load growth caused primarily by new Data Centers. SVP appreciates the CEC for considering the above comments and we look forward to continuing our partnership with stakeholders in the development of the 2020 IEPR Update. Please do not hesitate to contact me at (408) 615-6630 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Sincerely,

Paulo Apolinario
Senior Resource Analyst
Silicon Valley Power

Attachments:

Attachment 1 – SVP Updated Load Forecast Separated by Project Clusters

Attachment 2 – SVP Load Ramps and Project Timelines with Flags for Project Clusters

Attachment 1- SVP Updated Load Forecast Separated by Project Clusters

Form 1.5b - SVP

California Energy Demand SVP 1-in-2 - Mid Demand Case

SVP Total Load (MW)

Balancing Authority	Agency	SVP Substation	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Silicon Valley Power 1-in-2 Forecast		526	588	586	615	683	779	885	963	1,028	1,058	1,077	1,093	1,110	1,127
	Total Cluster #1 + #2 + #3					***79***	***133***	***203***	***298***	***382***	***453***	***479***	***493***	***505***	***517***	***529***
	Total Cluster #1					***79***	***120***	***157***	***210***	***266***	***308***	***326***	***333***	***336***	***340***	***345***
	Cluster #1 - Mathew	Mathew				0	11	20	29	36	36	36	36	36	36	36
	Cluster #1 - Coresite*	Fairview Bank 3				58	61	65	68	70	72	74	77	79	82	85
	Cluster #1 - McClaren	Parker				20	33	42	54	66	78	82	83	83	83	83
	Cluster #1 - Sequoia*	Martin Ave Junction				0	4	8	12	16	21	25	27	27	27	27
	Cluster #1 - City Center Development	Esperanca				0	0	0	12	28	38	38	38	38	38	38
	Cluster #1 - Raging Wire	Oaks Junction				2	5	7	9	11	14	15	16	17	18	19
	Cluster #1 - Laurelwood	San Thomas Junction				0	6	15	27	39	51	57	57	57	57	57
	Total Cluster #2					***0***	***13***	***37***	***61***	***84***	***113***	***121***	***129***	***137***	***145***	***152***
	Cluster #2 - Memorex	Memorex Junction				0	0	9	21	33	45	48	48	48	48	48
	Cluster #2 - Coresite 2*	Stender Way Junction				0	5	14	20	29	42	42	42	42	42	42
	Cluster #2 - Mission College	Freedom Circle Junction				0	4	8	12	12	13	16	19	21	22	23
	Cluster #2 - Walsh	Laurelwood				0	4	6	8	11	13	15	17	19	22	24
	Cluster #2 - Sequoia 2*	Martin Ave Junction				0	0	0	0	0	0	0	3	7	11	16
	Total Cluster #3					***0***	***0***	***9***	***27***	***32***	***32***	***32***	***32***	***32***	***32***	***32***
	Cluster #3 - Lafayette	Pacific				0	0	9	27	32	32	32	32	32	32	32

*Cluster projects have multiple phases split between Clusters 1 & 2

Form 1.5a - SVP

California Energy Demand SVP 1-in-2 - Mid Demand Case

SVP Total Energy to Serve Load (GWh)

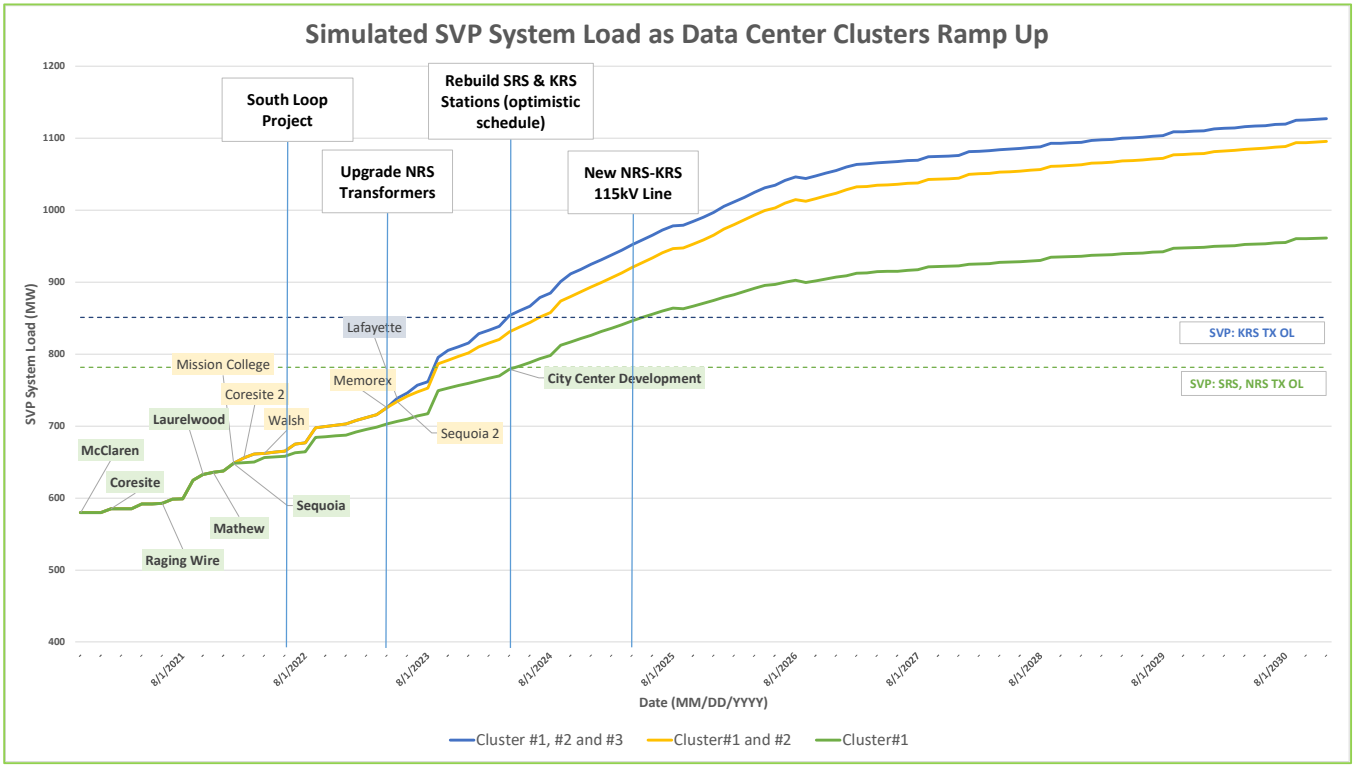
Balancing Authority	Agency	SVP Substation	2018	2019	2020*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Silicon Valley Power 1-in-2 Forecast		3,694	3,729	3,842	4,061	4,579	5,327	6,194	6,826	7,381	7,641	7,825	7,944	8,090	8,241
	Total Cluster #1 + #2 + #3*					***626***	***1,052***	***1,598***	***2,353***	***3,009***	***3,570***	***3,776***	***3,889***	***3,979***	***4,073***	***4,168***
	Total Cluster #1					***626***	***946***	***1,234***	***1,656***	***2,095***	***2,428***	***2,571***	***2,622***	***2,652***	***2,684***	***2,717***
	Cluster #1 - Mathew	Mathew				0	85	156	227	280	280	280	280	280	280	280
	Cluster #1 - Coresite	Fairview Bank 3				457	485	515	532	548	565	584	604	625	648	672
	Cluster #1 - McClaren	Parker				156	260	331	426	520	615	646	654	654	654	654
	Cluster #1 - Sequoia	Martin Ave Junction				0	32	60	94	129	164	198	213	213	213	213
	Cluster #1 - City Center Development	Esperanca				0	0	0	93	220	296	296	296	296	296	296
	Cluster #1 - Raging Wire	Oaks Junction				14	37	55	72	89	107	118	126	135	144	152
	Cluster #1 - Laurelwood	San Thomas Junction				0	47	118	213	307	402	449	449	449	449	449
	Total Cluster #2					***0***	***106***	***292***	***484***	***666***	***893***	***955***	***1,018***	***1,079***	***1,141***	***1,202***
	Cluster #2 - Memorex	Memorex Junction				0	0	71	166	260	355	378	378	378	378	378
	Cluster #2 - Coresite 2	Stender Way Junction				0	39	106	158	231	331	331	331	331	331	331
	Cluster #2 - Mission College	Freedom Circle Junction				0	35	66	94	91	106	128	153	162	172	181
	Cluster #2 - Walsh	Laurelwood				0	32	49	66	84	101	118	136	153	170	188
	Cluster #2 - Sequoia 2	Martin Ave Junction				0	0	0	0	0	0	0	20	55	90	124
	Total Cluster #3					***0***	***0***	***71***	***213***	***249***	***249***	***249***	***249***	***249***	***249***	***249***
	Cluster #3 - Lafayette	Pacific				0	0	71	213	249	249	249	249	249	249	249

*Estimated- billing and adjustments have not been completed or reported for CY2020.

**Average weighted load factor by customer rate schedule class applied to each cluster.

Attachment 2- SVP Load Ramps and Project Timelines with Flags for Project Clusters

Powering The Center of What's Possible



Legend Color Key[1]:

- Cluster #1 – Green line is SVP Base Load + Cluster 1 Projects
- Cluster #2 – Yellow line is SVP Base Load + Cluster 1 + Cluster 2 Projects
- Cluster #3 – Blue line is SVP Base Load + Cluster 1 + Cluster 2 + Cluster 3 Projects*

*The Lafayette Cluster #3 project is currently undergoing final approvals in Santa Clara public works and will be moving to cluster 2 shortly

Project	Load level (MW)	Triggering Study	Existing capacity (MW)	New capacity (MW)
NRS 115/60kV Transformers upgraded to 300 MW	782	Laurelwood DC	372*	600*
SRS Receiving Station Rebuild with 300 MW Tx	782	Laurelwood DC	372*	600*
KRS Receiving Station Rebuild with 300 MW Tx	851	Corsite DC	372*	600*
NRS-KRS 115kV New Transmission Line	901	Walsh DC	N/A	TBD
New 60kv NRS-SRS Loop	1048	Bowers Ave JCT	204	301
NRS T2 Spare	915	TPP 2019-20		
NRS 392 Mitigation (P2)	Now**	TPP 2019-20		

* Receiving Station capacity increases from 930 MVA to 1,500 MVA (n-1)
** P2 outage allows for non-consequential load loss (2022-23)
*** Sequoia has 27MW in Cluster 1 (connected to existing CCA substation)

[1] Refer to the cover document "The City of Santa Clara *dba* Silicon Valley Power (SVP) Comments on the California Energy Commission Docket No. 20-IEPR-03: Commissioner Workshop on Updates to the California Energy Demand 2019-2030 Forecast" for specific cluster definitions.