Standard LSE Plan

SILICON VALLEY CLEAN ENERGY

2026 INTEGRATED RESOURCE PLAN

AUGUST 10, 2026

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I. Executive Summary

Silicon Valley Clean Energy (SVCE) is pleased to present herein its 2026 Integrated Resource Plan (IRP). SVCE is a community choice aggregation program (CCA) operated by the Silicon Valley Clean Energy Authority (SVCEA), a California joint powers authority (JPA) composed of twelve cities plus the unincorporated areas of Santa Clara County. As a JPA, SVCEA is a local government agency that operates on a not-for-profit basis and is controlled by, and accountable to, the communities it serves.

SVCE is focused on helping its member communities advance their greenhouse gas (GHG) reduction goals by providing a clean source of energy and supporting economy-wide decarbonization through electrification while maintaining cost competitive rates and furthering system reliability. SVCE appreciates this opportunity to highlight its progress so far and to contribute to the statewide IRP planning exercise.

SVCE will be celebrating its 10th anniversary in 2027. SVCE's accomplishments since its launch include achieving an annual carbon-free[1] content in 9 out of 10 years of operation, which includes successfully offering a voluntary 100% Renewable Portfolio Standard (RPS) product to approximately 4% of its load; demonstrable progress towards meeting Senate Bill (SB) 350 long-term RPS procurement mandates through the successful execution of twenty six long-term power purchase agreements (PPAs); strong performance in meeting California's Resource Adequacy (RA) mandates; and an expansive list of program offerings to promote decarbonization and electrification within SVCE's service territory. All this was achieved while maintaining competitive rates relative to the incumbent investor-owned utility (IOU) and building a financially stable organization. SVCE has an investment-grade credit rating of A with a positive outlook from S&P and A3 with a stable outlook from Moody's. These ratings were awarded because of SVCE's ability to meet all procurement mandates, strong leadership, and the ability to understand and manage risk, as well as SVCE's robust financial liquidity position.

The 2026 IRP is SVCE's fourth IRP. SVCE's planning and electricity procurement efforts will help meet California's aggressive and necessary GHG reduction goals while charting a path towards providing SVCE's customers carbon-free electricity to promote electrification in an affordable and reliable manner. To this end, SVCE has identified three key goals: GHG reductions, affordability and reliability. It is not sustainable or responsible to present a portfolio which merely looks at one of these goals without considering the consequences for the other. This is demonstrated through SVCE's prior and ongoing procurement efforts, which balance aggressive deployment of solar photovoltaics (PV) with paired

[1] Values based upon SVCE's achievement of its Board of Directors adopted definition of clean, which include both RPS and GHG-free eligible resources. Values measured on an annual basis based on actual retail sales plus a 6% margin to cover line losses. *SVCE November Board of Directors Agenda Packet*. (2024). Silicon Valley Clean Energy. https://svcleanenergy.org/wp-content/uploads/2024-1113-SVCE-November-BOD-Agenda-Packet-scrubbed.pdf.

storage facilities, wind and additional long-term purchases of new and existing geothermal and long-duration storage resources.

In this IRP, SVCE presents two conforming portfolios, both of which meet SVCE's share of the 8 MMT target. The Preferred Conforming Portfolio reflects SVCE's current board adopted clean targets. These targets require the agency to achieve 75% RPS by 2030 and 100% by 2035 and thereafter on a retail sales basis. In addition to its aggressive RPS targets, the SVCE board has also directed the agency to maintain 100% clean energy, including line losses, each year. To supplement this Preferred Conforming Portfolio, this IRP also provides an Alternate Conforming Portfolio, which studies a scenario in which 50% of SVCE's load opts into a minimum compliance product. This scenario is intended to assess the portfolio impacts of a potential SVCE product offering, which focuses on affordability with less aggressive new build and greater reliance on existing system resources. Each of these scenarios is discussed in more detail in Section II below.

In addition to the two conforming portfolios, SVCE completed analysis of several sensitivities intended to address specific questions posed in this narrative. This includes a review of system reliability under Slice of Day (Section III.f), an analysis of portfolio needs using SVCE's internal load forecast (Section IV.a.xi) and an assessment of procurement needs should Department of Water Resources (DWR) centralized procurement occur (Section IV.a.x.). SVCE presents the results of these sensitivities within this document for the purpose of addressing these planning questions but does not include them as formal conforming or alternate portfolios.

In both its conforming plans, SVCE finds a need for a significant amount of procurement, driven largely by the California Public Utility Commission's (CPUC) assigned forecast. This forecast, which is 68% higher in 2035 than what SVCE was mandated to use in its 2022 IRP, causes a significant departure in portfolio results relative to SVCE's last IRP filing. SVCE also finds a consistent need for both out of state and firm clean resources in its portfolios, suggesting a need to enable greater resource diversity for the state as it reduces reliance on emitting resources.

The modeling and results for this IRP, as described in Sections II and III below, relied heavily on the Automated Resource Selection (ARS) capacity expansion tool developed by Ascend Analytics. This tool developed least cost, best fit portfolios for SVCE which achieve the necessary reliability, RPS and GHG metrics for each portfolio. In Section IV, SVCE discusses its procurement activities to date along with potential barriers, risks and other activities which may impact the viability and likelihood of the Preferred Conforming Portfolio presented herein coming to fruition. Finally, Section V considers additional changes to the IRP process which may improve California grid planning and procurement.

In the coming years SVCE's procurement activities will focus on balancing additional new renewable procurement with existing cost-effective contracts, diversifying its renewable portfolio in order to better match its renewable generation profile to its customers demand curve, and continued review of new emerging technologies which may support the organization's long-term carbon-free goals. SVCE also maintains its commitment to investing heavily in programs to help its communities further decarbonize

via electrification of buildings and transportation while advancing demand flexibility through rate and program design.

II. Study Design

a. Objectives

SVCE's purpose in undertaking this modeling exercise was twofold. First and foremost, SVCE sought to produce an IRP that would represent SVCE's procurement policies as comprehensively as possible while simultaneously meeting the compliance requirements of this IRP process. Second, SVCE sought to undertake analysis that would be internally useful for planning purposes and instructive on how potential changes to product offerings in the future may impact affordability and procurement needs.

In November of 2024, the SVCE Board of Directors adopted long-term clean targets for the agency. These targets were adopted in response to analytical work conducted by SVCE's planning team in conjunction with Energy + Environmental Economics (E3) to assess the potential value and risks of various clean targets including both annual and hourly clean metrics. Due to the cost and risks associated with achieving hourly clean targets the board adopted annual targets but requires the procurement team to include an hourly GHG-reductions assessment as part of PPA evaluation going forward. The Board ultimately adopted a target of 75% RPS by 2030 and 100% RPS by 2035 on a retail sales basis. Additionally, the Board directed staff to continue to achieve a portfolio that is 100% clean on an annual basis, including line losses.

More recently, SVCE staff has held a series of "levers" conversations with the Board of Directors to proactively discuss how to balance its clean goals, program offerings and competitive rates should market conditions negatively impact portfolio margins on a sustained basis. From that discussion, SVCE is exploring the value of expanding product offerings to enable a broader choice of clean products and more affordable rates. The Alternate Conforming Portfolio, reflecting 50% of load on a minimum compliance product, is intended to reflect the potential portfolio and rate impact of pursuing such products. SVCE views the 50% as a high level of load to be on a lower compliance product but used the value to study a more extreme case and highlight potential differences in cost and resource build.

After portfolio assumptions were developed, SVCE began the modeling process as described below. In developing modeling assumptions SVCE utilized the assigned load forecast and built model constraints into its capacity expansion tool to ensure that each portfolio met or exceeded its share of the 8 MMT targets as well as reliability needs as provided by the CPUC.

b. Methodology

i. Modeling Tool(s)

To evaluate the potential future portfolios described in the previous Section II.a SVCE employed the ARS module of the PowerSIMM V modeling platform developed by Ascend Analytics. An overview of the ARS modeling framework employed for development of the 2026 IRP portfolios is shown in Figure 1. Additionally, SVCE evaluated the Preferred and Alternate portfolios developed from the ARS module within PowerSIMM's stochastic capabilities in order to understand the cost at risk aspect of each portfolio. PowerSIMM's model framework for stochastic evaluation corresponds to the diagram below in Figure 2.

ARS is PowerSIMM's capacity expansion module. ARS selects the least-cost resource procurement or retirements which satisfy the model constraints. The models begin with a dispatch of existing and candidate resources to determine variable costs, energy generation, carbon emissions, and renewable generation over the time horizon of the study. SVCE employed the following key model constraints:

1. Resource Adequacy – Requires portfolio to meet reserve margin requirements set by the IRP process, using a Slice of Day logic (not ELCCs)
2. Short-Term Contracts – Requires short-term contracts to supply between 15% and 35% of retail load on an annual basis
3. Emissions Target – Requires SVCE procure carbon-free energy to meet or exceed the 8 MMT target given the expected system emissions each hour from the Clean System Power (CSP) tool
4. Annual Clean Constraints – Requires portfolio supply meet RPS and GHG-free annual targets corresponding to the Preferred Conforming Portfolio and the Alternate Conforming Portfolio, respectively

Outputs from ARS provide the timing and quantity of resources to procure through the study horizon which satisfy the above constraints at the lowest cost. The model considers full resource costs including fixed costs and variable costs. Market sales revenue is treated as a negative cost in the model. The next stage of the planning process is to evaluate ARS output portfolios in both the Resource Data Template (RDT) and CSP tools. Due to discrepancies between the Ascend modeling tools and the IRP compliance tools, cases were post-processed to ensure a least cost fit which achieved the required RPS, RA and GHG metrics[2]. Finally, the portfolios were evaluated to calculate total portfolio costs and gauge portfolio risk.

SVCE selected the ARS module as the primary capacity expansion, production cost and valuation tool for this IRP because it provides deeper insight and precision in valuation relative to a sector-wide capacity

[2] SVCE ensured that the RA, RPS and GHG metrics for compliance are achieved in all portfolios. In instances where the annual GHG-free percentage of energy from the CSP tool was less than 100%, SVCE relied on the modeling results of the Ascend tool. Due to the deliverability terms of SVCE's contracts, it expects to achieve 100% GHG-free energy with the portfolios presented, even in instances where the CSP tool does not achieve this target. SVCE monitors its contracted energy against its annual GHG-free target and intends to procure additional short-term GHG-free resources to maintain that target, if needed.

expansion model like RESOLVE.[3] While ARS does not explicitly check for system reliability as the SERVM model does, it does model LSE-level RA needs. ARS uses a Slice of Day (SOD) RA framework, aligned with current RA program requirements. It calculates the peak demand of SVCE's load in every month-hour of the forecast and applies a PRM to find the RA constraint in each month-hour. It then finds the least-cost combination of resources required to satisfy that RA constraint (amongst others). The RA value of supply resources is based on CPUC-supplied exceedance profiles, and the RA value of storage projects is based on their economic dispatch.

SVCE opted to use the ARS Slice of Day logic over the ELCCs because it believes this represents a portfolio optimization that is best aligned with actual portfolio needs and likely future procurement. As discussed in Section III.f below, there may be a meaningful discrepancy between implied SOD needs and the IRP reliability constraint under ELCCs. While this difference in constraints may diverge from RESOLVE, SVCE ensured its portfolio was compliant with the RDT reliability constraint through use of additional existing natural gas. Therefore, SVCE does not believe its results have any divergences from RESOLVE that would require the CPUC to evaluate the portfolios differently than if SVCE had used RESOLVE for capacity selection.

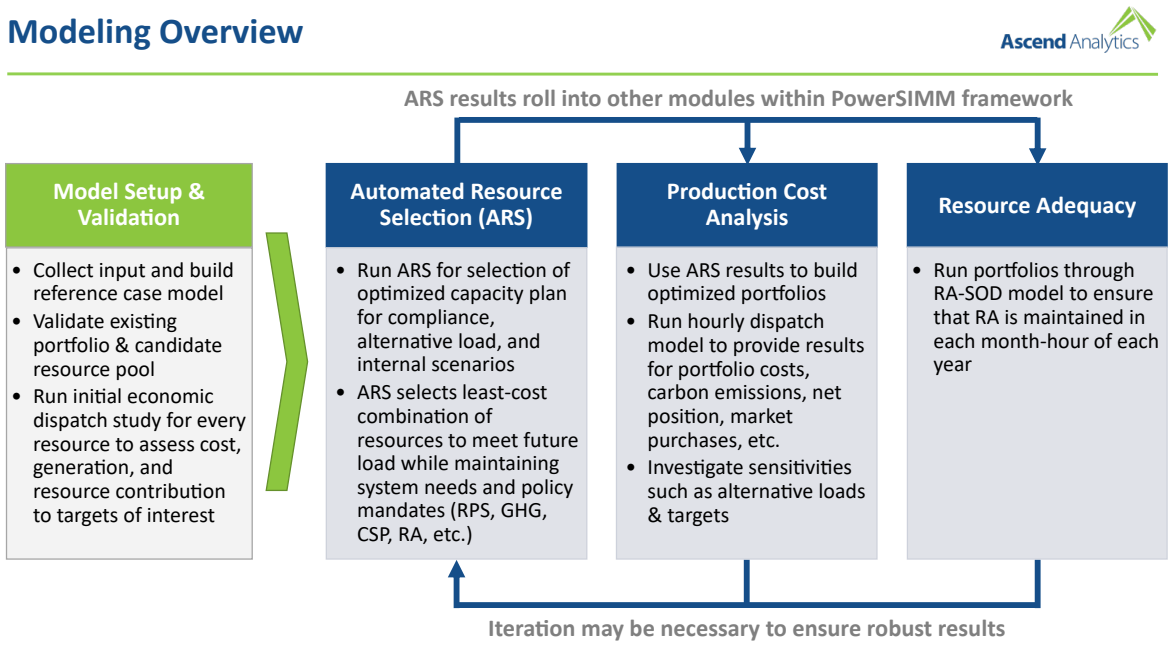

Figure 1. Modeling framework to develop compliant, reliable, and least cost portfolios in PowerSIMM.

[3] RESOLVE is a high-level capacity expansion optimization model that selects system level (i.e. WECC or California wide) resources to meet a set of load, emissions, and reliability constraints at minimum cost using a 37-day simplification.

Figure 2 shows PowerSIMM's modeling framework. PowerSIMM simulates weather based on historical weather observations at National Climate Data Center stations throughout California. It then simulates load and renewable generation as a function of weather, and historical generation/demand. Hourly spot price conditions are simulated as a function of weather, system load, and renewable generation. The simulated spot prices are scaled so that the average of all spot prices equals the simulated on-peak/off-peak monthly forward price. Market forward data in the near term (next 5 years) is blended with Ascend's long-term fundamental forecasts of gas and power prices driven by supply fundamentals in the Western Electricity Coordinating Council (WECC). With spot price, renewable generation, and load simulations in hand, PowerSIMM operates all dispatchable resources economically, according to price signals and limited by transmission limits. This concludes the simulation and dispatch optimization. PowerSIMM next finds the least-cost buildout, consisting of the existing portfolio and candidate resource options, to satisfy the specified constraints (RPS, GHG-free, RA, emissions, etc.). Finally, PowerSIMM reports all requested outputs.

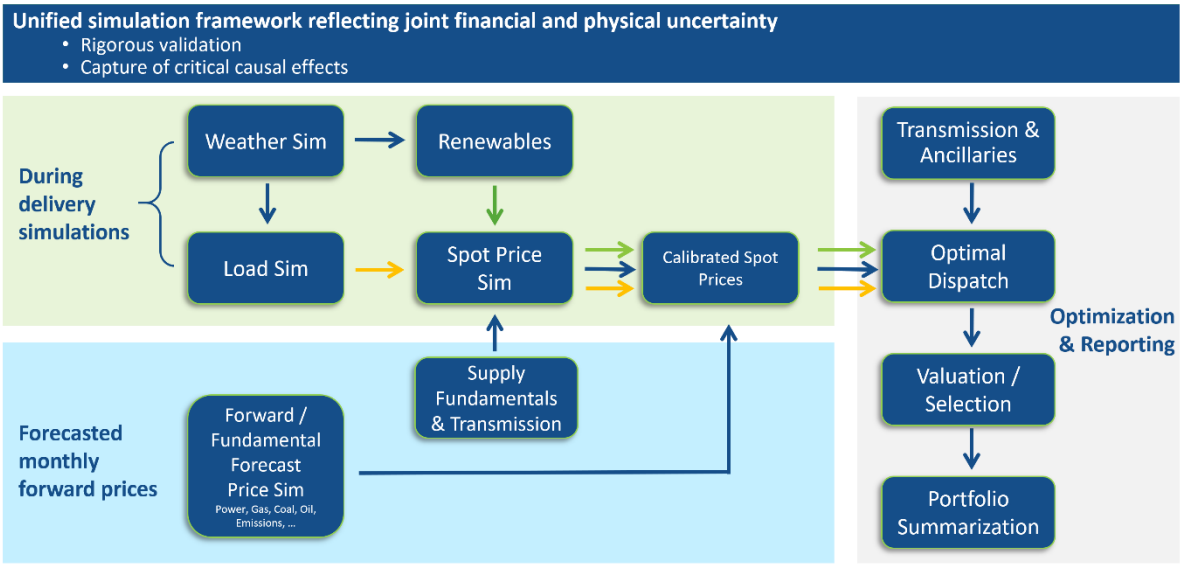

Figure 2. Schematic diagram of PowerSIMM modeling framework.

Following development of the portfolios in ARS and any necessary post-processing SVCE evaluated portfolio risk using PowerSIMM's stochastic capabilities. PowerSIMM captures and quantifies elements of risk through the simulation of meaningful uncertainty with weather as a fundamental driver. PowerSIMM is a "hybrid model," meaning it uses both market data and long-term fundamentals to simulate load, renewables, and California Independent System Operator (CAISO) spot market prices against which resources are dispatched and valued. To better capture the uncertainty in future conditions, a stochastic framework enabled simulation over a wide range of different future conditions, where market prices, weather patterns, renewable generation, and load significantly vary. To capture the risk associated with the distribution of portfolio costs (resulting from the stochastic simulation), a "risk premium" metric was calculated that indicates the cost at risk or the actuarial value of a portfolio's exposure to market price volatility, variation in generation and load, and changes in weather conditions.

This metric is the difference between the mean net present value (NPV) of cost and the 95th percentile of the NPV of cost. The results of this risk analysis are discussed in more detail in Section III.e. below.

ii. Modeling Approach

In developing its models, SVCE first input its existing portfolio, historical generation data, cost projections, and other relevant data into the ARS module. To ensure that model results met the RA, RPS and GHG targets for each model run, Ascend Analytics built relevant constraints into the model to align with IRP compliance tools. After model runs were completed, SVCE added additional capacity in some years to ensure alignment with CSP and RDT compliance. Where additional capacity was needed, staff added it based on the implied marginal emissions value of the resources given CSP assumptions, while accounting for the reasonableness of overall build and expected costs.

Once assumptions were input, staff verified that modeled systems behaved as anticipated under alternative weather and pricing conditions. An economic dispatch study for every resource to assess costs, generation, and contribution to targets of interest was then run. These inputs were fed to the ARS module, which selected new resources based on minimizing the cost of procuring and operating new and existing resources while also meeting the constraints built into the model to ensure system requirements for RA, RPS and GHG constraints were met. After portfolios were selected, they were evaluated in PowerSIMM to understand their operational feasibility, cost, portfolio risk and the overall implications of the portfolio.

In addition to the conforming portfolio runs filed as part of this IRP, SVCE also completed several sensitivities intended to help inform this narrative. First, SVCE completed an additional ARS run utilizing SVCE's internal load forecast. This is intended to highlight the build SVCE expects to need to achieve its portfolio targets based on its own future outlook. Additionally, this highlights the potential impact of load forecast error on long-term planning activities. Because the CPUC does not recognize alternative load forecasts as conforming cases, SVCE is not filing an RDT and CSP to accompany this scenario but rather presents the results solely for the purpose of discussion in the relevant narrative sections below. SVCE also completed a scenario in which its share of the DWR Central Procurement Entity (CPE) allocations is added into its portfolio. Due to timing constraints, SVCE did not run a full ARS model to assess this scenario but rather input the resources in the CSP and removed ARS outputs until the GHG-free targets were met. SVCE describes this in further detail in Section IV.a.x.

Finally, SVCE input the Preferred Conforming Portfolio results into its in-house Slice of Day tool. SVCE completed this analysis initially for 2035, when SVCE's "worst day" allocation is relatively predictable, to compare near-term IRP reliability results with the current RA compliance structure. An additional analysis was done using an estimate of SVCE's 2045 worst day shape and portfolio to assess the ELCCs later in the compliance horizon. Results of this analysis are discussed further in Section III.f below.

iii. Alternative Assumptions

After evaluation of RESOLVE cost assumptions, SVCE staff opted to utilize the cost curves developed by Ascend Analytics which more closely represent prices observed in recent Request for Offers (RFOs). This

price forecast has similar cost decrease trajectories to RESOLVE over time. For offshore wind, where staff did not have internal cost projections, SVCE utilized the ratio of cost between onshore and offshore wind in RESOLVE to develop an offshore wind cost for ARS.

Because ARS is designed to achieve the least-cost build, resource selection is driven largely by the relative price of resources in the model, not the absolute price. For this reason, SVCE expects that the resource build out is largely unaffected by use of Ascend's price curves. The price curves are, however, relevant in assessing cost and risk in the portfolio as discussed below in Section III.e.

ARS also does not utilize ELCCs directly but rather uses an RA Slice of Day framework. It calculates the peak demand of SVCE's load in every month-hour of the forecast and applies a PRM to find the RA constraint in each month-hour. It then finds the least-cost combination of resources required to satisfy that RA constraint (amongst others). The RA value of supply resources is based on CPUC supplied exceedance profiles, and the RA value of storage projects is based on their economic dispatch. SVCE opted to use an RA Slice of Day framework so that portfolios would best align with actual expected procurement practices. SVCE checked resulting portfolios against the reliability procurement requirement, using an ELCC approach, and added additional short-term fossil contracts as needed to ensure compliance with the IRP tools.

III. Study Results

a. Conforming and Alternative Portfolios

SVCE has chosen to submit two conforming portfolios for this IRP:

- **Preferred Conforming Portfolio:** This portfolio explores required resources to meet SVCE's current Board adopted target of 75% RPS by 2030 and 100% RPS by 2035, while maintaining 100% GHG-free power on an annual basis.
- **Alternate Conforming Portfolio:** This portfolio explores a scenario in which 50% of SVCE's load is on a minimum compliance product per SB 1020 guidelines, while the remaining 50% achieves SVCE's current board adopted targets as laid out above.

SVCE's Board of Directors has selected use of its adopted clean targets for its preferred portfolio as it is the portfolio that most accurately reflects SVCE's intended procurement strategy going forward. This portfolio is consistent with SVCE's Board-adopted procurement requirements and provides a diverse and balanced portfolio that achieves results consistent with SB 350's reliability, GHG-reduction, RPS, disadvantaged communities (DACs), renewables integration, and other requirements. SVCE discusses its rationale for selecting this as its preferred portfolio in more detail in Section III.b below.

Portfolios developed by SVCE as part of its 2026 IRP modeling exercise included all the resources SVCE had under contract as of April 1, 2026[4]. In addition to the contracted resources, SVCE included its portion of the Cost Allocation Mechanism (CAM) allocation and assumed such resources would be allocated in similar quantities on a forward-going basis. Per SB 846, SVCE removed its allocation of the Diablo Canyon Power Plant in all years.

The following tables summarize the SVCE long-term resources included in all portfolios:

Table 1. Baseline SVCE contracts for preferred conforming and alternate conforming portfolios (Capacity, MW)

Resources	2030	2035	2040	2045
Hybrid [Generator]	662	662	429	80
Hybrid [Battery]	368	368	288	50
Geothermal	70	70	19	19
Onshore Wind	279	236	133	0
Storage 4h	24	24	24	0
Storage 8h	25	25	25	0

Table 2. Baseline SVCE Contracts by energy, contracted and planned (Energy, GWh)

Resources	2030	2035	2040	2045
Hybrid	1929	2009	1296	241
Geothermal	439	424	131	131
Onshore Wind	859	720	374	1
Solar	72	54	7	5
Biogas/Biomass	8	6	1	0
Hydro[5]	431	13	10	10

In addition to known contracted resources, SVCE included generic capacity to meet its obligations under Decision 26-02-057 which required the agency to procure an additional 135 MW of net qualifying

[4] Because SVCE's procurement team was actively engaged in procurement at the time of modeling, SVCE's baseline resources for modeling could not reflect changes to the portfolio after modeling commenced. SVCE has attempted to capture changes to the portfolio between April 1st and August 10th, 2026, including expected changes to its resources under development, in its filed RDTs where possible while still presenting results consistent with its modeling efforts.

[5] Includes assumed hydro allocation from PG&E.

capacity by 2032 as shown in Table 3. Staff estimated likely quantities and technology types based on initial review of offers from its 2026 New Build Carbon Free Energy & Storage Projects RFO, which closed March 4, 2026, as well as using broad market intelligence. Lacking ELCCs for resources under the new order, SVCE utilized the 2028 ELCCs developed by Astrape Consulting as a proxy for this order. Actual procurement for D.26-02-057 may vary meaningfully from these assumptions depending upon future market offers.

Table 3. Cumulative Generic Resources Added for D.26-02-057 (Capacity, MW)

Resources	2030	2031	2032
Hybrid [Generator]	50	70	70
Hybrid [Battery]	50	70	70
Geothermal	5	15	25
Out-of-State Wind	0	0	110
Storage 8h	0	20	20

Each portfolio also assumed a portion of its procurement needs will continue to be met by short-term contracts from existing resources. SVCE assumed that a minimum of 15% of SVCE load should be met using short-term Index + RPS or Index + GHG-free contracts over the planning horizon. In recognition of tightening market conditions and more irregular hydrological conditions going forward, SVCE also capped the amount of short-term products in the portfolio at 35% per year. Given SVCE has historically procured 50% of its load utilizing such transactions, SVCE believes this represents a conservative view of market potential.

In addition to the resources above, SVCE allowed up to its load share allocation of the existing fossil fleet in the CPUC RESOLVE results to be used as generic RA resources to be procured on a short-term basis each year to meet its RA needs. As a post-processing step, SVCE "right-sized" the total contract amount of these RA resources for each portfolio to ensure that the portfolio was not over-procuring such resources. As discussed further in Section III.f below SVCE's Preferred Conforming Portfolio requires less than its load share allocation of the existing natural gas fleet.

Table 4 and

Table 5 below show the cumulative build for new resources in 2033, 2035, 2040 and 2045 for each portfolio. Across all scenarios, due to on-going activities related to existing procurement orders and the timing of new build, SVCE assumed no additional resources could be added to the portfolio prior to 2033 beyond those forced in for D.26-02-057 compliance.

Table 4. Preferred Conforming Portfolio Cumulative Selected New Resources, excluding D.26 procurement orders (Capacity, MW)

Resource Type	2033	2035	2040	2045
In-state Wind	0	125	400	400
Out of State Wind	120	235	325	338
Solar	0	0	640	1520
Geothermal	0	77	77	300
Storage 4h	0	0	80	680
Storage 8h	0	0	0	0
Storage 12h	0	70	70	95
Total	**120**	**507**	**1,592**	**3,332**

Table 5. Alternate Conforming Portfolio Cumulative Selected New Resources, excluding D.26 procurement orders (Capacity, MW)

Resource Type	2033	2035	2040	2045
In-state Wind	0	10	400	400
Out of State Wind	25	233	323	325
Solar	0	0	265	1105
Geothermal	0	0	42	254
Storage 4h	0	0	0	550
Storage 8h	0	0	0	0
Storage 12h	0	0	65	70
Total	**25**	**243**	**1,094**	**2,704**

Figure 3 and Figure 4 below show the annual build-out for the Preferred Conforming Portfolio and Alternate Conforming Portfolio.

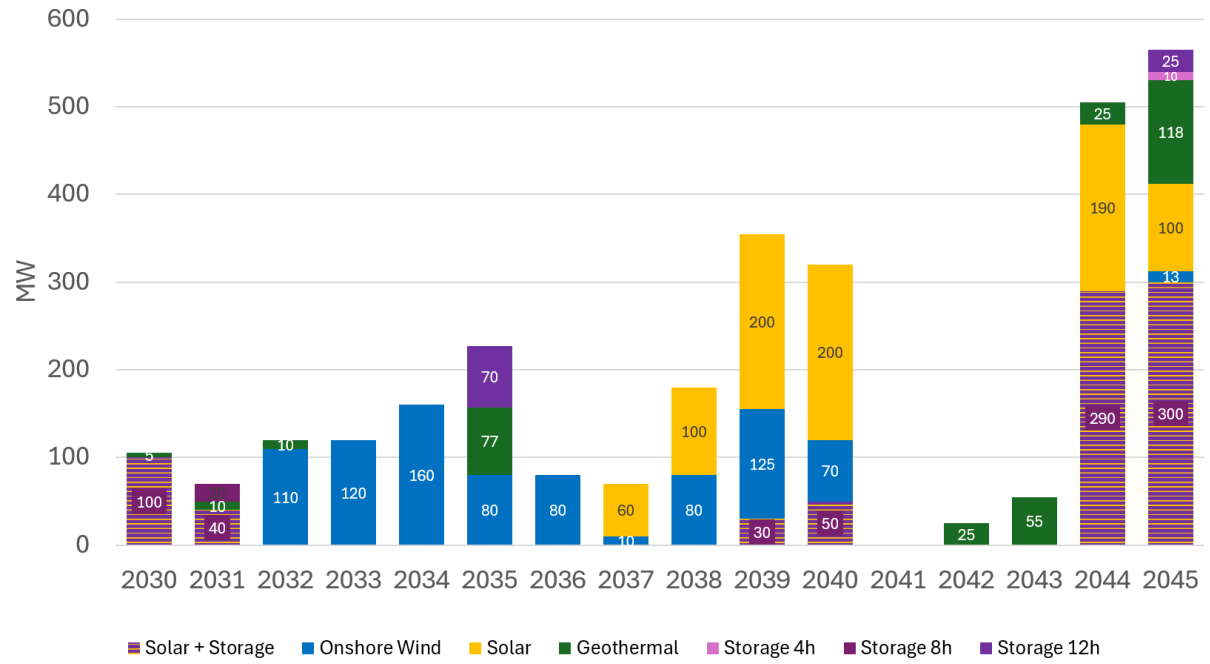

Figure 3. Annual build-out for Preferred Conforming Portfolio

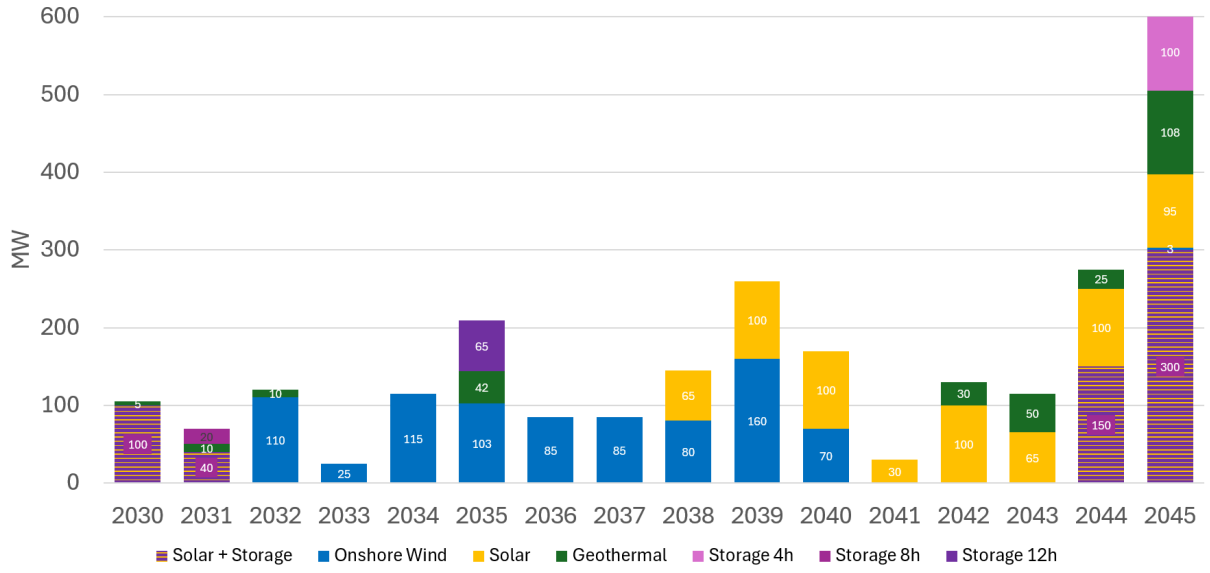

Figure 4. Annual build-out for Alternate Conforming Portfolio

Across both conforming portfolios, the model found a mix of onshore wind, geothermal, solar, storage and hybrid resources to be the most cost-effective way to meet its annual clean targets while also achieving the CPUC mandated emissions and reliability standards. In addition to meeting the model constraints, the diversity in the resource mix helps mitigate cost and market risks for any particular resource type.

In its modelling, the emissions target was generally the most binding constraint, not the annual clean targets. This suggests the CPUC's glidepath to 8 MMT is more binding than SB 1020 targets. Given the binding emissions constraint, the total difference in build out between the two conforming plans was largely driven by different procurement strategies due to different RPS and clean product assumptions. While both conforming plans meet the CPUC emission target for SVCE, the Preferred Conforming Portfolio has a more accelerated timeline to reach 100% RPS and the Alternate Conforming Portfolio assumes 50% of load is served by minimum compliant products. This reduces the Alternate Conforming Portfolio's need for RPS-eligible procurement, thus resulting in lower solar, geothermal, and storage build out compared to the Preferred Conforming Portfolio.

Table 6 below summarizes SVCE's Preferred Conforming Portfolio capacity selection results against its load share allocation of the Preferred System Plan (PSP) Portfolio.

Table 6. SVCE Preferred Conforming Portfolio Cumulative Buildout Compared to Load Share Allocation of 2025 Preferred System Portfolio from RESOLVE (MW)

	2035		2040		2045	
Resource Type	**SVCE**	**RESOLVE**	**SVCE**	**RESOLVE**	**SVCE**	**RESOLVE**
In-state Wind	125	159	400	214	400	283
Out of State Wind	345	179	435	406	448	493
Solar	140	1,358	780	1,680	1,660	2,140
Geothermal	102	82	102	83	325	101
Storage 4h	140	112	220	114	820	175
Storage 8h	20	357	20	361	20	546
Storage 12h	70	100	70	207	95	220
Total	**942**	**2,346**	**2,027**	**3,065**	**3,767**	**3,958**

Summing across all resource types, SVCE's modeling results show less buildout than its load share allocation of the CPUC model results, particularly earlier in the forecast horizon and for solar resources. However, SVCE's portfolio results in higher build for in-state wind, geothermal, and four-hour storage. To ensure portfolio diversity, reduce curtailment risk, and minimize system emissions across all hours, our analysis shows that wind resources provide more consistent emissions reductions value during critical hours while solar has increasingly diminishing value during critical hours. Therefore, disproportionately more wind and geothermal resources are selected to complement the portfolio. While SVCE's results for wind and geothermal exceed load share allocation from RESOLVE results, SVCE's results are within the build limit assumptions for the RESOLVE model, especially when considering potential for Enhanced Geothermal (EGS) in the model.

SVCE notes that if LSEs 2026 individual filings all differ meaningfully from the RESOLVE results, the final CSP tool emissions may vary substantially from those in the 2026 compliance materials. Because SVCE's

portfolios were binding on the emissions target any changes to the CSP results could have meaningful implications for what SVCE's actual least cost, best fit procurement needs may be and would materially impact what the organization should procure to best maintain affordability for its customers.

b. Preferred Conforming Portfolio

SVCE's Preferred Conforming Portfolio is consistent with the clean targets adopted by the Board of Directors in November of 2024. This portfolio best maintains SVCE's goal of being 100% carbon-free on an annual basis while balancing the incremental clean energy benefits of long-term PPAs with customer affordability, portfolio risk, load uncertainty, and the need to reduce reliance on hydro resources over time. SVCE selected this portfolio for the following reasons:

- It is consistent with the SVCE Board-approved RPS target and GHG-free targets.
- It puts SVCE on the most reasonable path toward the State's 2045 emissions targets.
- It has an accelerated timeline to reduce reliance on the existing natural gas fleet, relative to the alternate portfolio.

As explained further below, while SVCE views this as the most likely set of targets the agency will pursue, there remains significant uncertainty in load growth and technology availability which may materially impact actual portfolio development. Moreover, should the Commission continue to issue procurement orders based on load share, LSEs such as SVCE may be limited in what they can procure due to timing constraints and market offers.

In meeting the Board of Director's clean targets, the Preferred Conforming Portfolio necessarily exceeds RPS requirements, including for RPS provided by long-term contracts. In order to meet the GHG-free reduction targets as established by the California Air Resources Board and determined through the CSP tool, SVCE's portfolio also utilizes a diverse mix of resources which provide clean energy in the hours with high system emissions, reducing dispatch of the fossil fleet and thereby improving air pollutant quantities across the state, including within DACs. SVCE provides analysis on how it believes this build out is largely aligned with the 2025-2026 TPP Portfolio, along with potential additional transmission needed, in section III.m below.

In addition to achieving its clean targets, the Preferred Conforming Portfolio also demonstrates SVCE's ongoing commitment to ensuring a reliable and affordable system. SVCE discusses how its Preferred Conforming Portfolio meets both goals in more detail in sections III.f and III.e, respectively, below. While SVCE utilized the default CSP shapes and required load forecast for the purposes of modeling, the organization's commitment to load shaping and demand side energy management is discussed in detail in its Action Plan within this document.

Since 2022, SVCE has adopted new annual clean targets from the board which materially impacted the planning assumptions for this cycle. SVCE compares the 2026 Preferred Conforming Portfolio to the 2022 Preferred Conforming and 2022 100% RPS Alternate Conforming Portfolio below. These results show that on a purely name plate basis, SVCE's 2026 build generally favors out of state wind and

geothermal at higher levels than its 2022 plan. However, it is also important to note that the baseline resource list upon which these results were derived is materially different. Specifically, SVCE has already procured sufficient capacity since 2022 to satisfy all the 2035 build out from its 2022 Preferred Conforming Portfolio, albeit with a moderately different resource mix. In other words, the 2026 IRP build is essentially incremental to SVCE's 2022 IRP. The significant increase in build is due primarily to a 2035 assigned load forecast that is 68% higher in this IRP cycle than in 2022.

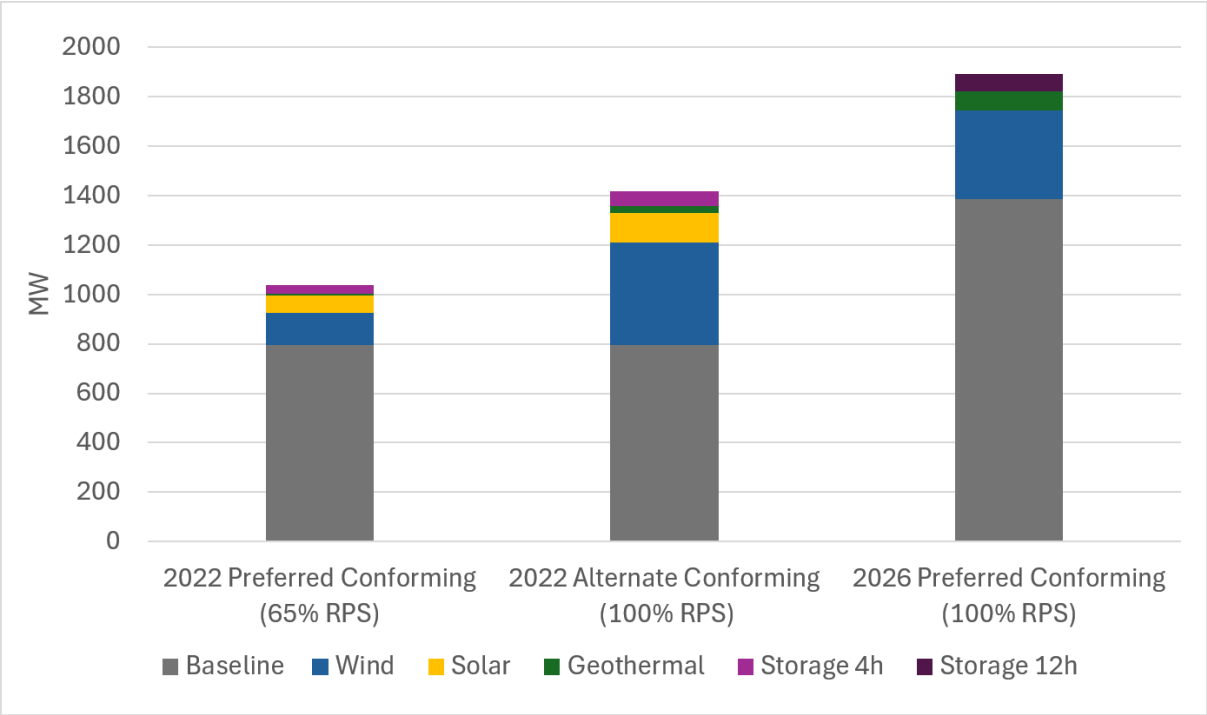

Figure 5. 2035 Results for 2026 Preferred Conforming Portfolio and 2022 Preferred Conforming and 2022 100% RPS Alternate Conforming Portfolio[6]

c. GHG Emissions Results

Both of SVCE's conforming portfolios meet its assigned GHG-benchmarks in the CSP in all years. Because SVCE's modeling generally showed the portfolios to be binding on the emissions constraint, there are limited differences between the emissions results of the two portfolios. However, the agency selected its preferred portfolio in part because it relies less heavily on long-term system power and ensures the agency continues to contribute meaningfully to new renewable project development.

SVCE assessed GHG-emissions results using both the default CSP profiles and internally developed profiles. SVCE developed custom hourly profiles in the CSP for non-commercial & industrial (C&I)

[6] Graphic does not include generic resources included in portfolio for either D.21-06-035 (20022 IRP portfolios) or D.26-02-057 (2026 IRP portfolio).

baseline, C&I baseline, electric vehicle (EV) load, building electrification (BE), data center load, behind-the-meter photovoltaics (BTM PV), and behind-the-meter storage (BTM storage). These profiles were developed based on SVCE's internal load forecast. SVCE develops 8760 profiles for each load modifier it forecasts as part of its annual load forecast process[7]. This forecast includes expected changes to shapes overtime as various technologies mature and rate and program designs improve to encourage demand flexibility. Ultimately, SVCE found no significant difference between the default profiles and the internally developed profiles and so opted to proceed with the default profiles for better consistency with the CPUC's inputs and assumptions. Table 7 and Table 8 below provide the GHG emissions results for its portfolios as provided by the CSP tool.

Table 7. Preferred Conforming Portfolio GHG Emissions

	Unit	2030	2035	2040	2045
SVCE Target	MMt/yr	0.44	0.35	0.30	0.16
CO2	MMt/yr	0.44	0.34	0.28	0.15
PM2.5	tonnes/yr	30	25	20	12
SO2	tonnes/yr	4	3	2	1
NOx	tonnes/yr	46	41	20	13

Table 8. Alternate Conforming Portfolio GHG Emissions

Emissions Total	Unit	2030	2035	2040	2045
SVCE Target	MMt/yr	0.44	0.35	0.30	0.16
CO2	MMt/yr	0.44	0.35	0.27	0.15
PM2.5	tonnes/yr	30	26	19	12
SO2	tonnes/yr	4	3	2	1
NOx	tonnes/yr	46	43	26	14

[7] SVCE's forecasting team develops forecasts for Behind the Meter PV, Behind the Meter Storage, Electric Vehicles, Building Electrification and Data Centers. SVCE does not currently model climate change impacts as a unique modifier and for internal purposes uses the CEC's Energy Efficiency profile shapes as provided in the annual Integrated Energy Policy Report (IEPR) process.

d. Local Air Pollutant Minimization and Disadvantaged Communities

i. Local Air Pollutants

SVCE provides the results of the air pollutants for each of its conforming portfolios as shown in the CSP in Table 7 and Table 8 above. All SVCE C02 in the CSP tool come from system power and in front of the meter combined heat and power (IFM CHP). SVCE's portfolio also includes small shares of biogas and biomass PM 2.5, SO_2, and NOx emissions and pollutants which come solely from SVCE's Voluntary Allocation, which the organization is using to help meet its RPS goals in a cost-effective manner. As noted in Section III.b above, SVCE selected its Preferred Conforming Portfolio in part because it best fits SVCE's load to its clean energy supply, thereby reducing reliance on system power.

ii. Focus on Disadvantaged Communities

SVCE used CalEPA's designation of DACs for the purpose of SB 535 to identify DACs that are located within the SVCE service territory. This analysis indicates that SVCE serves 6,241 customers residing in 7 census tracts identified as DACs: 6085512602, 6085505202, 6085512603, 6085512604, 6085512310, 6085503214, and 6085504602. This represents approximately 2.2% of SVCE customers.

Note that census tracts 6085503214, 6085505202, and 6085504602 overlap with areas outside of SVCE service territory. The map below shows all 7 census tracts in red, trimmed to SVCE service territory boundaries. Per 2019 American Community Survey (ACS) population estimates, the population of these 7 census tracts is listed as 34,733, or 16,974 for census tracts completely within SVCE service territory and 17,759 for census tracts partially within SVCE service territory.

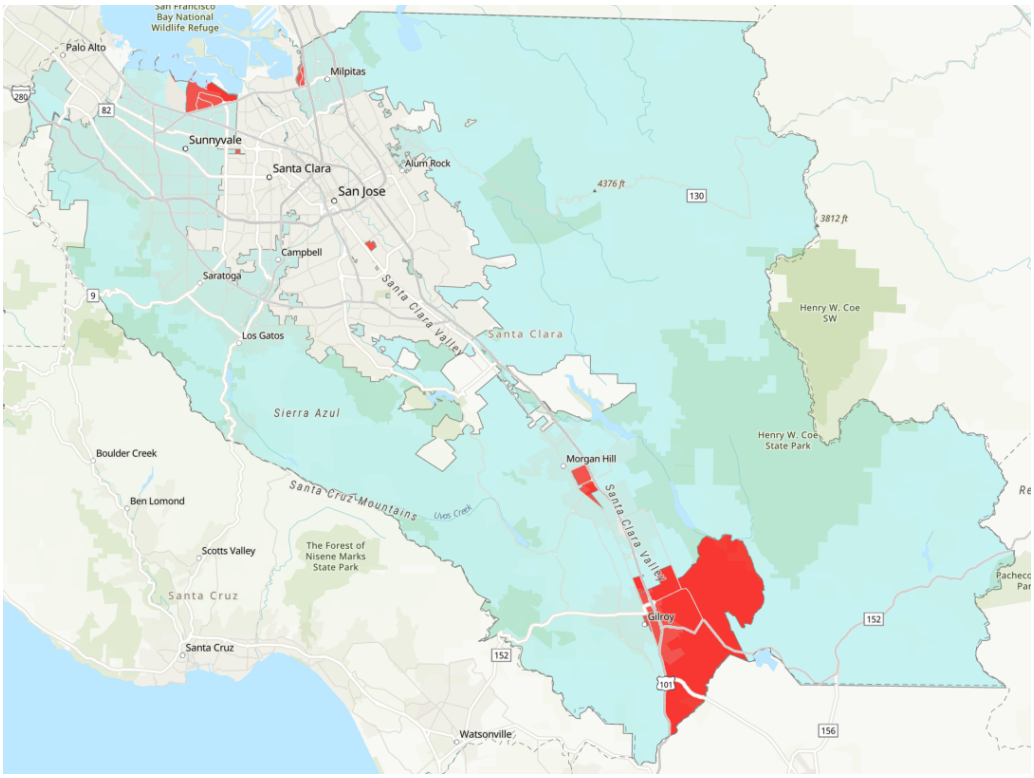

Figure 6. Map of SVCE DAC Census Tracts, trimmed to SVCE service territory boundaries[8]

Outside of its territory and for the benefit of DACs across the state, SVCE's primary strategy for reducing emissions and contributing to the economic development of DACs in its procurement practices is the aggressive procurement of zero-emissions renewable resources. When selecting power projects, SVCE considers whether proposed facilities are located within DACs or otherwise contribute to DAC economic development (for instance, by increasing employment opportunities for DAC residents).

This strategy is formalized in SVCE's *Power Purchase Agreement Project Selection Policy* that is applied to SVCE's procurement efforts. As part of the selection policy, SVCE specifies workforce development, environmental stewardship, and community engagement among the list of SVCE's procurement goals. SVCE prioritizes projects that support the local workforce, deliver benefits for air, water, and the natural environment, and demonstrate engagement with the local community to identify and address benefits and impacts or projects.

In totality, SVCE has nine projects located within 5 miles of a DAC:

- Angela Solar (solar + storage, Tulare County)
- Aratina (solar + storage, Kern County)
- Cameron Crest (wind, Kern County)
- Darden (solar + storage, Fresno County)

[8] *SB 535 Disadvantaged Communities Map*. (2021). Ca.Gov. https://oehha.ca.gov/calenviroscreen/sb535

- Glossy Garlic (solar + storage, Santa Clara County)
- Hanford (natural gas peaker + battery storage, Kings County)
- Mountain View Wind (wind, Riverside County)
- Ormat Portfolio (geothermal, Imperial County)
- Slate 2 (solar + storage, Kings County)

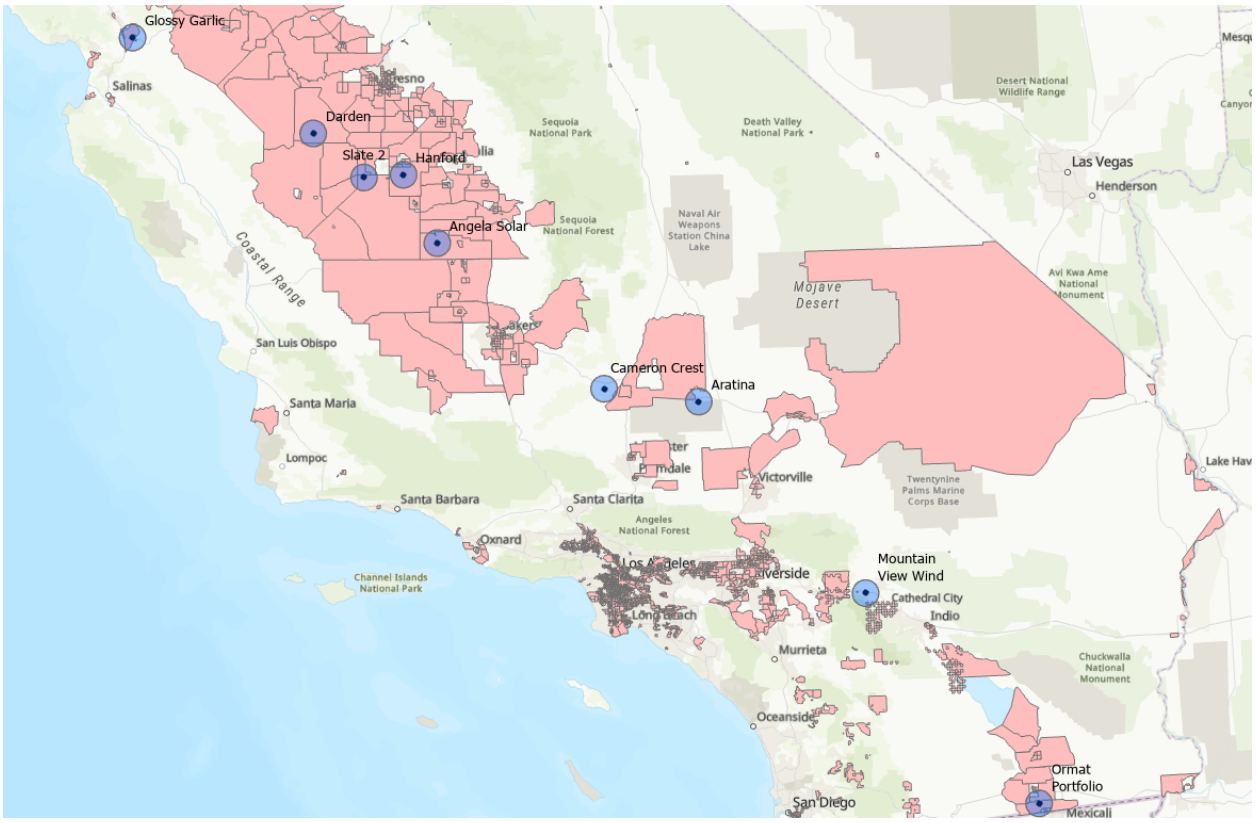

Figure 7. Map of SVCE projects within 5 miles of a DAC[9]

SVCE has signed two PPAs located within a DAC census tract. The first is a solar plus storage facility called RE Slate ("Slate"), which is located in Kings County. In addition to the Slate project, in 2023 SVCE signed a contract for the Hanford Hybrid Power Plant, also located in Kings County. The Hanford Hybrid Power Plant is a hybrid natural gas peaker power plant and battery energy storage system that SVCE contracted to ensure that SVCE can meet its RA program obligations. SVCE's contract with the facility enabled the addition of the battery energy storage system to the existing gas peaker power plant to reduce the run time of the peaker power plant. This is direct evidence of SVCE's work to support reduced reliance on fossil-fueled power plants located within DACs.

[9] *SB 535 Disadvantaged Communities Map*. (2021). Ca.Gov. https://oehha.ca.gov/calenviroscreen/sb535

Although GHG and criteria pollutant emissions from the Hanford project are expected to decrease because of the addition of the battery energy storage system, as part of this contract approval, the SVCE Board of Directors also required staff to establish guidelines for a fund to mitigate emissions from the occasional operation of the peaker portion of the plant to support grid reliability. SVCE discusses the Hanford Hybrid Plant Emissions Mitigation Fund in greater detail in section IV.b below. SVCE's *Power Purchase Agreement Project Selection Policy* and the establishment of the Hanford Hybrid Plant Emissions Mitigation Fund demonstrate SVCE's commitment to thorough evaluation of its procurement impacts and to mitigating impacts when necessary to support improved local air quality and lessen GHG emissions while benefiting DACs.

SVCE's existing RA contracts are primarily from natural gas units which may be located in or near a DAC area. To the extent compatible with RA program requirements and cost-effectiveness, SVCE prefers capacity contracts from generators that do not have emissions impacts on DACs such as those from Distributed Energy Resources (DERs), renewable and carbon-free resources. To this end, SVCE has been aggressively signing new PPAs which provide both energy and capacity to SVCE to help meet its RA requirements.

As discussed more fully in Section IV.b below, SVCE's Board of Directors is made up of elected officials representing each of the thirteen member agencies in the SVCE service area. Decisions related to SVCE's procurement and strategic planning are made by these elected officials in the interest of their constituents, including those in DACs. SVCE staff regularly meets with the Board to discuss matters related to long-term planning for both SVCE and the system at large. SVCE staff utilized feedback from the Board in development of this IRP, which was ultimately reviewed and approved by the Board of Directors on June 10, 2026.

e. Cost and Rate Analysis

As a California CCA operating in an environment where customers have choice, whether it's returning to the incumbent utility, participating in direct access or bypassing SVCE with BTM PV, SVCE is acutely aware of the need to manage cost and maintain competitive rates. SVCE's rates are currently indexed to PG&E's rates for each respective rate offering approved by the CPUC. SVCE's governing board establishes a discount and/or premium to PG&E's rate based on the adopted fiscal year operating budget, assumed commodity cost uncertainty and financial reserve targets. Operating budget and rates may be adjusted at mid-year. Reserves are used to cover costs above budget to maintain rate stability.

SVCE's value proposition since its inception has been to provide affordable and annually carbon-free product offerings to its customers. GreenStart is SVCE's default product offering, comprised of a mix of RPS and other carbon-free resources, which since inception has been offered at a discount to PG&E's bundled generation rates of three percent on average. GreenPrime is SVCE's opt-up product which is made up of 100% RPS eligible resources and is offered at a small premium to GreenStart.

SVCE provides additional bill credits to California Alternate Rates for Energy Program/Family Electric Rate Assistance Program (CARE/FERA) (income qualified) customers. 10% of SVCE's residential

customers are CARE/FERA, and these bill credit amounts from SVCE represent an additional generation rate discount of approximately 20%. SVCE describes its CARE/FERA program in more detail in Section IV.b below. SVCE will continue to pursue affordability to end users along with building a robust green portfolio aligned with SVCE's mission.

Fundamental to achieving SVCE's product and rate objectives is SVCE's ability to procure cost-effective electric supply resources and manage the cost and risk associated with its load and supply portfolio. This starts with the proper evaluation and selection of resources acquired to meet SVCE's long-term renewable needs, which make up a large portion of the supply portfolio. In evaluating the addition of new or existing resources to the SVCE generation portfolio, SVCE utilizes both quantitative and qualitative metrics. SVCE evaluates the resource value as determined by its net energy (including congestion), ancillary service (A/S), RA and RPS/REC value and compares it to the contract cost. In addition, SVCE assigns qualitative metrics including a resource's generation profile, location, workforce development and technology type. SVCE then measures the resource's benefits against its costs to determine whether it is cost-effective and to assess an implied REC cost.

After a resource has been analyzed to be cost-effective, it is then incorporated and modeled with SVCE's existing portfolio to determine the overall portfolio's return/risk ratio. The return/risk ratio analysis will account for portfolio dynamics including:

- Resource performance against SVCE's hourly load obligation;
- Basis locational price differential between the resource and SVCE Default Load Aggregation Point (DLAP); and
- Variability in production from resources and forward and spot price uncertainty.

Resources that increase the portfolio's gross margin NPV while decreasing the gross margin at risk (as measured by the mean gross margin NPV minus the P5 gross margin NPV) are considered resources for further consideration.

In addition to the process described above, SVCE also assesses the compliance and strategic value a resource may provide. Resources are evaluated on their ability to:

- Meet California mandated procurement requirements;
- Contribute to system wide emissions reductions by contributing clean energy in hours where carbon emissions are the highest;
- Provide local benefits to its member communities;
- Mitigate portfolio concentration risk (price, technology, counterparty and/or location); and
- Provide for overall grid reliability.

SVCE is subject to significant cost volatility and uncertainty in meeting its energy load obligations within the CAISO. To manage this cost, SVCE's governing board has adopted an Energy Risk Management Policy (ERMP). Included in the Policy are tolerance bands for minimum and maximum amount of load to be met through forward purchases of fixed-price energy (Table 9). These transactions are carried out with Board-approved counterparties and for the most part are sourced through generic resources priced at the PG&E EZ-Gen Hub or NP15 delivery point. In 2025, the SVCE Board adopted changes to its ERMP

to account for the hedge value that PG&E's portfolio provides by way of the PCIA. Without the recognition of the inclusion of the PCIA as a hedge, SVCE runs the risk of being long relative to load and thus increasing risk to its customers.

Table 9. SVCE Board Approved Energy Risk Management Tolerance Bands (Fixed Price Supply as a % of Load)

Period	Minimum	Maximum
Current Balance of Year	80%	110%
Year 2	70%	90%
Year 3	55%	80%
Year 4	50%	80%
Year 5	50%	80%

Taking a portfolio approach of varying new and existing projects, technology, location, contract tenor, counterparties and contract pricing structures in its pursuit of long-term RPS resources along with having a rigorous energy risk management program to manage load obligations and supply portfolio cost and risk ensures that SVCE can meet its near and long-term cost, rate, and financial objectives.

In development of this 2026 IRP, the SVCE team completed cost and risk analysis for both the Preferred Conforming Portfolio and Alternate Conforming Portfolios. The results of this evaluation are included in Figure 8 below. The Preferred Conforming Portfolio is expected to result in marginally more expensive power supply costs than the Alternate Conforming Portfolio, with an approximately 4% higher expected cost. This is largely driven by additional procurement of resource build out at prevailing new asset build expected prices that are strong in spite of a fundamental expectation future spot prices for the resource revenue stacks. Cost assumptions for each of these categories are subject to uncertainty. However, the costs are similar across portfolios and subject to variance dependent on future RFO offer prices and market conditions. In spite of modestly higher cost for the procurement, the Preferred Conforming Portfolio yields lower cost at risk than the Alternate Conforming Portfolio due to fewer short-term market transactions and creation of more price certainty through higher contracting levels. This tradeoff between cost and risk, when combined with the system value of the clean energy build, was deemed to be more desirable in the Preferred Conforming Portfolio.

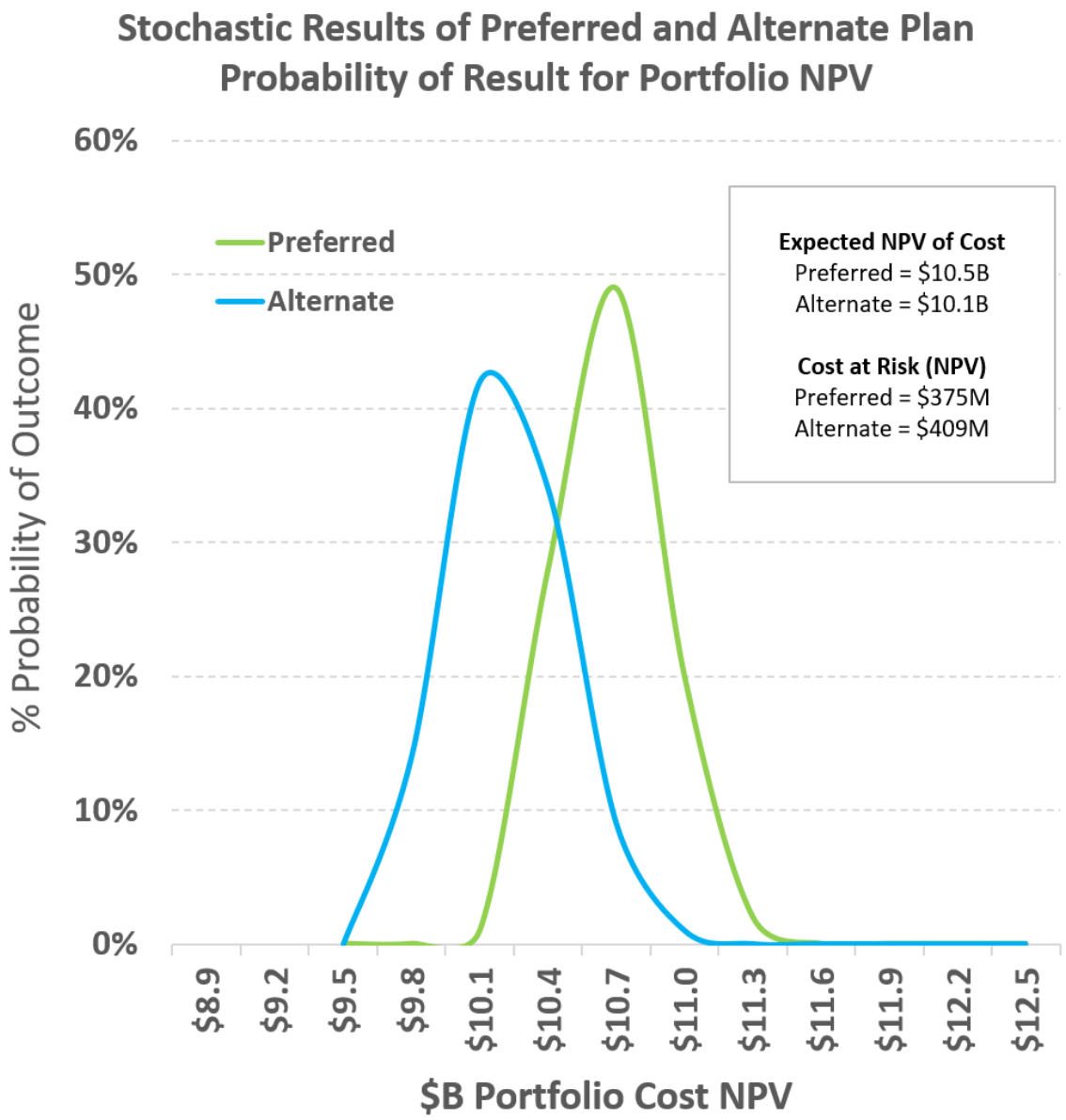

Figure 8. SVCE Expected NPV Cost and Risk for Preferred and Alternate Conforming Portfolios

Given the potential differential between model assumptions and actual market conditions, SVCE will continue to evaluate offers as solicitations occur in the future. In signing actual contracts, SVCE will balance both clean energy attributes with affordability measures to ensure cost effectiveness for the portfolio in order to maintain affordability for our customer base.

f. System Reliability Analysis

As noted in Section III.a.ii above, SVCE "right sized" short-term RA contracts to meet the RA needs of the portfolio each year. For this reason, SVCE achieves a near net zero position in both conforming plans. The results of each conforming portfolio's RA supply stack by contract status are below.

Table 10. Preferred Conforming Portfolio RA Results

	2030	2035	2040	2045
SVCE reliability need (MW)				
ELCC by contract status (effective MW)				
Online				
Development				
Review				
Planned Existing				
Planned New				
BTM PV				
SVCE total supply				
Net Position	1	2	1	0

Table 11. Alternate Conforming Portfolio RA results

	2030	2035	2040	2045
SVCE reliability need (MW)				
ELCC by contract status (effective MW)				
Online				
Development				
Review				
Planned Existing				
Planned New				
BTM PV				
SVCE total supply				
Net Position	7	7	4	4

SVCE's RA requirements are met by proportionally fewer existing resources in later years in both portfolios, however the higher new resource build in the Preferred Conforming Portfolio ensures lower reliance on existing resources in that scenario. In its preferred scenario SVCE utilizes less than its load share allocation of the existing fossil fleet to meet its RA requirements. Part of the reason SVCE views

the Preferred Conforming Portfolio as more suitable than the Alternate Conforming Portfolio is because of its lower reliance on the existing fossil fleet.

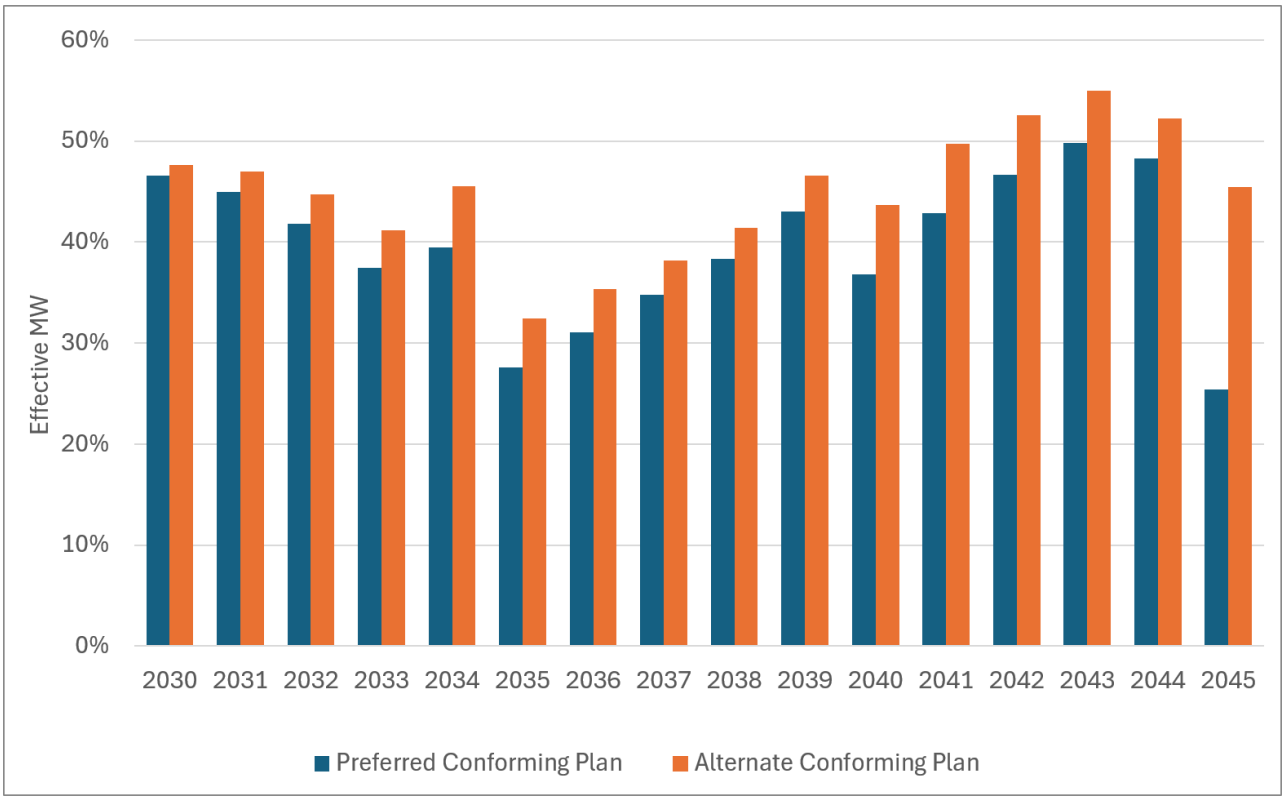

Figure 9. Share of reliability needs met with natural gas fleet

In addition to assessing reliability compliance with the IRP RDT, SVCE conducted analysis to compare the outputs of the IRP compliant reliability portfolio with its own Slice of Day tool. For this, SVCE modelled two study years: 2035 and 2045. SVCE did not attempt to alter the overall "worst-day" shape given the uncertainty in future peak and so applied a scaler to its current obligation based on the total change in load and assumed an 18% PRM.

As shown in Figure 10 below, SVCE found that despite the RDT showing sufficient capacity in 2035, the model results indicate that the portfolio may be short capacity by approximately [redacted] This suggests a potential misalignment between the IRP ELCCs and likely SOD accounting rules within the next decade.

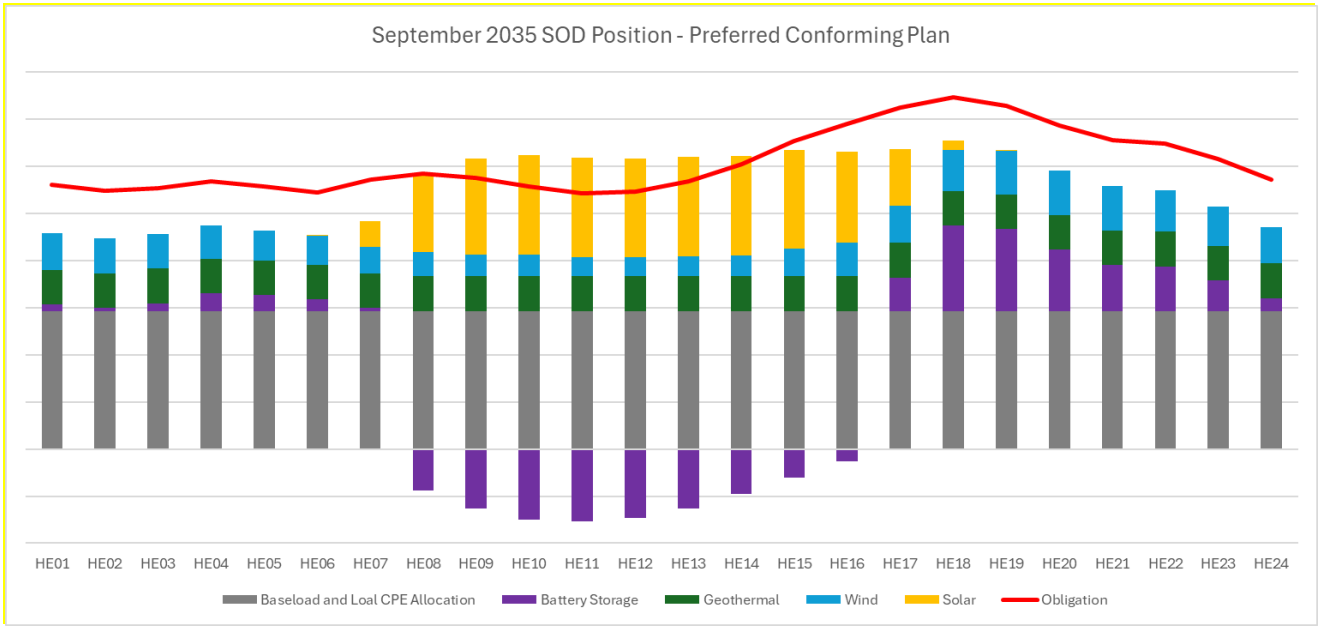

Figure 10. Summer 2035 SOD analysis for Preferred Conforming Portfolio

In reviewing the 2045 results, as shown in Figure 11 below, SVCE found that by the end of the forecast horizon the ELCCs may be too conservative. Specifically, SVCE found that while its RDT results showed a nearly perfect net zero position, under SOD the portfolio was slightly long in many hours following the battery optimization.

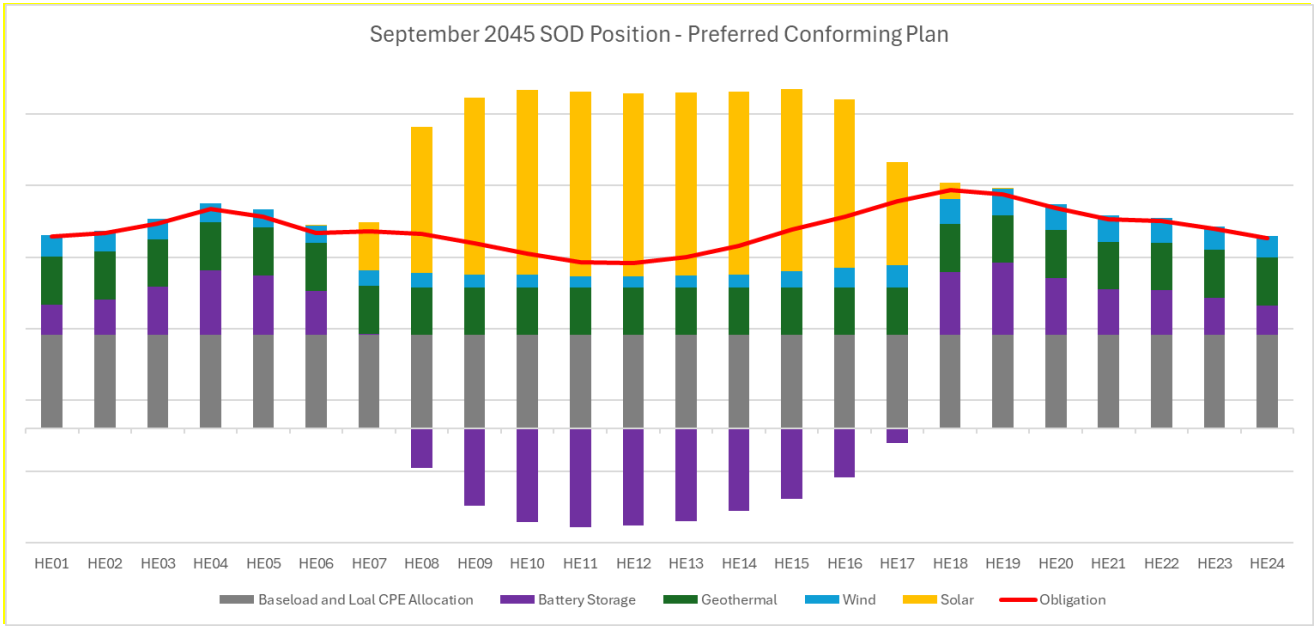

Figure 11. Summer 2045 SOD analysis for Preferred Conforming Portfolio

While SVCE found inconsistencies in how ELCCs and SOD metrics vary across the time horizon, the broader lack of alignment speaks to potentially meaningful issues with using differing metrics across RA,

IRP planning and IRP procurement. 2026 LSE IRP plans will, by necessity, meet the IRP planning reliability targets. However, actual procurement activities will depend on LSE evaluation of best fit to its portfolio given the LSE's needs under slice of day, and, as long as they are in place, the ELCCs used for procurement orders.

SVCE strongly advocates for the use of one reliability metric across RA and IRP procurement and planning. As discussed in SVCE's Reliable Clean Power Procurement Program (RCPPP) proposal, each new constraint introduced into a procurement team's portfolio optimization necessarily reduces the feasible solution set and removes lower cost portfolio solutions for our customers. While marginal ELCCs may speak to the marginal value of resources to the system needs, SOD already captures the marginal value of a resource to an LSE's portfolio. So long as the rules of the RA program are sufficient to create the desired level of system reliability, there is no need for an additional metric in the IRP space.

g. Existing Resource Planning

In developing its inputs and assumptions, SVCE worked to create a defendable balance of resources utilizing existing and new resources based on its experience transacting in the market and in procuring new resources. In all portfolios, the majority of SVCE's energy and capacity needs were met by resources already under contract or added into the portfolio as planned new resources. However, it is an important part of SVCE's risk management strategy to balance its portfolio with a mix of new and existing resources as well as short and long-term contracts.

For the purposes of this IRP cycle, SVCE required that each year the portfolio meets its energy needs with a minimum 15% and a maximum of 35% short-term product in all years post-2030. In post-processing of model results, SVCE allowed a violation of the short-term product cap in 2030 given likely challenges in achieving additional new build in that time combined with an aggressive near-term load forecast and in recognition that allocations from Diablo Canyon, which were not modelled per SB 846, will likely satisfy a portion of the portfolio's clean energy needs. The model selected either Index plus PCC1 contracts or energy only hydro contracts to meet this requirement, depending on what it found most cost effective given the forecast price for the resource and the portfolio's RPS targets. Across all scenarios, the model generally found it cost effective to utilize short-term products to the extent allowable. This strategy of procuring short-term resources is consistent with SVCE's Board directive to diversify procurement tenors to manage risks. SVCE believes the resources to meet this procurement objective may be sourced from other LSEs portfolios and/or merchant renewable resources.

Relative to its 2022 IRP, SVCE is meeting approximately the same share of its energy needs with short-term products in 2035 as shown in Table 12 below.

Table 12. Comparison of energy needs met by short-term existing contracts across different portfolios

	2030			2035		
	2022 IRP Preferred	Preferred Plan	Alternate Plan	2022 IRP Preferred	Preferred Plan	Alternate Plan
PCC 1	12%	11%	11%	12%	22%	11%
Hydro	22%	33%	33%	25%	13%	23%
Total	34%	44%	44%	37%	35%	33%

SVCE finds these assumptions to be reasonable given the total REC purchases amount to less than 20% in 2030 and 40% of in 2035 of its implied load share of the assumed 2026 renewable generation in the RESOLVE results. As discussed further in Section III.h below, the total utilization of the hydro fleet also was deemed reasonable. SVCE also discusses use of the existing fossil fleet for reliability purposes in Section III.f above. Taken in totality SVCE deemed the results reasonable given the organization has historically been able to procure more than 35% of its energy needs through the short-term market and more than 50% of its RA needs from existing fossil.

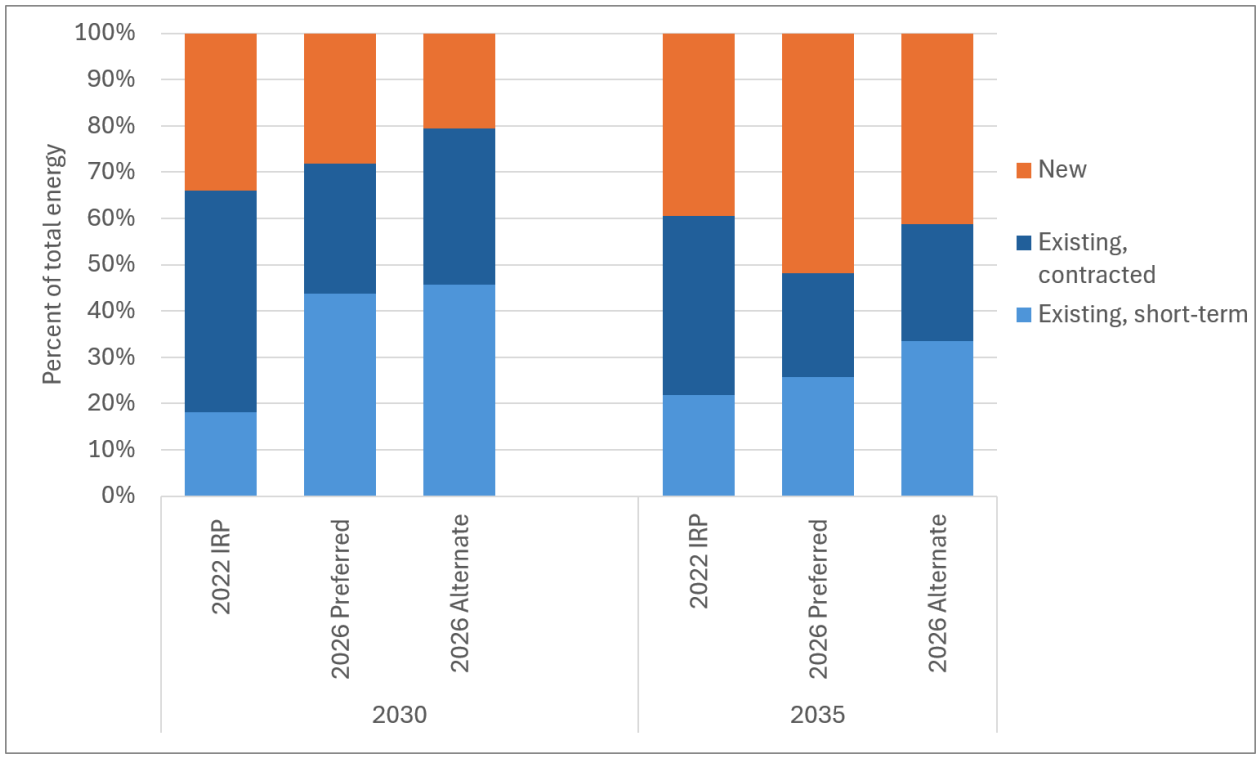

Figure 12. Comparison of contracted existing, short-term existing capacity to new capacity across portfolios

Per SB 846, SVCE ignores its allocation of the Diablo Canyon Power Plant in all years. As described in Section III.h below, this means SVCE is likely to utilize attributes guaranteed to it via SB 846 through at least 2030, reducing its reliance on other system resources and resulting in lower market purchases of GHG-free and PCC1 products.

h. Hydro Generation Risk Management

Historically, SVCE has relied heavily on a significant amount of purchases of GHG-free energy from hydro generators to maintain its Board approved goal of being carbon free on an annual basis. Since its 2022 IRP, SVCE has actively worked to reduce its reliance on short-term purchases of GHG-free energy through its growing portfolio of long-term contracts for renewable resources. This portfolio includes both geothermal resources that can deliver baseload generation and long-duration storage which can effectively utilize renewable energy during peak hours. Additionally, in adopting its current clean targets, staff highlighted the value of emphasizing RPS resources as a means of reducing long-term hydro reliance. SVCE's current board adopted target of 100% RPS by 2035 on a retail sales basis, means the organization will rely on hydro resources solely to cover line losses to meet its clean targets.

Currently, SVCE receives a significant portion of its hydro power from its allocation of PG&E's fleet. Staff monitors the snowpack and expected hydro conditions in California throughout the year and adjusts its forecast of expected allocations accordingly throughout the year and issues RFOs for additional GHG-free attributes to meet its clean goals as needed. For the purposes of this IRP, SVCE did not assume that PG&E would continue allocations past 2030, as SB100 becomes binding, and instead assumes market purchases of other in-state or Pacific Northwest Hydro past that point. In pursuing such contracts SVCE attempts to execute firm contracts to provide certainty on hydro deliveries from suppliers who will only sell specified quantities of resources versus a unit contingent contract that is subject to the vagaries of hydrological conditions. SVCE is able to mitigate its hydrological delivery risk by diversifying the regions from which it procures large hydro. In addition, SVCE is inserting language into contracts that specify that the supplier provide hydrological statistics (storage levels and acre/ft conversions) at certain times of the year for SVCE to better forecast future deliveries. For the portion of hydro supply provided from non-firm resources, SVCE will assess the variability of the resources under various precipitation and hydrological conditions and will rebalance its portfolio with firm carbon-free and/or RPS resources to meet its 100% carbon-free annual goal.

SVCE contracts for hydro resources through a mix of counterparties and for varying terms to manage risk associated with counterparty default on hydro resources. SVCE's goal is to secure a large portion of its large hydro needs under short-term contracts typically of a maximum of three- to five-year tenures; however, it continues to explore longer-term contracting for small hydro facilities.

Figure 13 compares the amount of hydro generation in each conforming portfolio against SVCE's load share allocation of the 2025 PSP hydro assumptions. Though the organization utilizes more than its implied load share allocation of the resource fleet, its share of energy needs met by hydro fall over time. This reliance on hydro is driven in part by the significantly higher load forecast used in this IRP cycle

relative to the prior IRP, which increases the amount of GHG-free energy needed to maintain the agency's clean goals and meet GHG emissions targets. In all scenarios, SVCE uses less than its historical reliance on hydro to meet its clean goals.

SVCE recognizes that imported hydro has risks around the changing hydrological conditions of the Western US, deliverability constraints during peak periods, and market competition. As such, SVCE is actively managing these risks through diversified procurement, deploying other clean firm resources when available, and hydrological monitoring. Additionally, in adopting its annual clean targets the Board allowed for some margin of error in instances where supply cannot be found or is deemed unreasonably costly to procure.

SVCE notes that as part of its 2026 IRP assumptions, it does not include any allocations from the Diablo Canyon Power Plant despite them being expected at least through 2030, per SB 846 (Dodd). Given the organization expects to receive both RA and GHG-free value from the plant, actual hydro needs in the near-term to meet its GHG-free goals are likely to be about 10% lower than shown in Figure 13 below for 2030. The 2035 results may differ significantly depending on whether the plant sees a further extension and upon the mechanism(s) for attribute allocations.

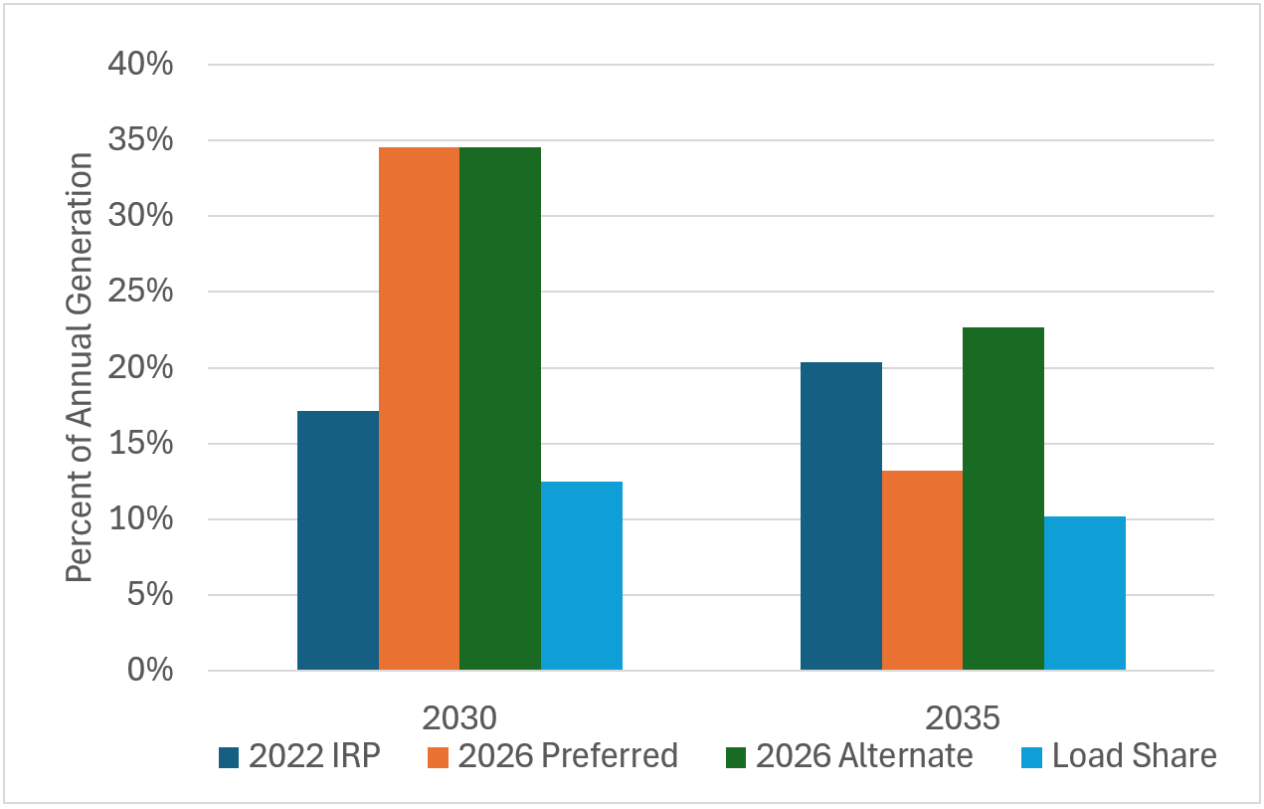

Figure 13. Comparison of hydro generation for 2022 and 2026 IRP portfolios and SVCE's load share allocation of the 2025 RESOLVE results

i. Long-Duration Storage Planning

SVCE included long-duration energy storage (LDES) as a candidate resource in the modeling exercise to develop conforming portfolios this cycle. Modest quantities of 12-hr LDES were selected by the model starting in 2035 and included in both portfolios. As noted in Section IV.a.ii below, SVCE has contracted long-duration storage to meet its requirements under D.21-06-035. Based on the results from recent solicitations and the order requirements SVCE also assumed LDES would satisfy a portion of the recent procurement order (D.26-02-057) and forced generic LDES into the portfolio prior to 2032.

In 2025 SVCE signed the Willow Rock Compressed Air Energy Storage project through its partnership with California Community Power (CC Power). The 500 MW facility is expected to come online in 2030. SVCE signed this contract in part in recognition of the value of supporting emerging technologies and increasing technological diversity on the system, especially non-lithium ion-based storage technologies.

SVCE continues to assess the value of long-duration storage as part of its portfolio planning process and included it as a candidate resource in its capacity expansion modeling. A primary benefit of LDES is its ability to be sited far more broadly than either geothermal or wind resources. If insufficient transmission capacity is made available for the wind and geothermal assumed in SVCE's portfolio, the agency may procure more LDES than shown in its preferred plan in order to meet its procurement needs.

SVCE's 2022 IRP did not include any long-duration storage beyond what was required to meet its obligations under D.21-06-035. Selection of LDES in the portfolio this cycle is likely driven not only by the significant increase in the forecasted load, but also due to use of the Slice of Day framework for its modeling efforts this cycle.

j. Clean Firm Power Planning

As part of its 2026 IRP planning efforts, SVCE included both geothermal and biomass as candidate resources. Despite the relatively high costs of the resources, the model consistently selected high levels of geothermal to meet its procurement needs due to its ability to reduce reliance on system power and provide RA.

SVCE's Preferred Conforming Portfolio selected 325 MW of additional geothermal by 2045, more than two-thirds of which come online after 2040. While this exceeds SVCE's implied share of the CPUC's RESOLVE results, only 101 MW[10], SVCE has consistently seen value in clean, firm resources in its

[10] While RESOLVE selected approximately 4 GW of geothermal by 2045, the CPUC's I&A allowed for more build, especially when including advanced geothermal resources. *2024 – 2026 Integrated Resource Planning (IRP) Inputs and Assumptions*. (2026). California Public Utilities Commission. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/2025_inputs_and_assumptions_report_20260210.pdf

portfolio and supports the State in developing the infrastructure to accommodate development of such technologies, including potentially reserving deliverability for geothermal projects in the transmission planning process (TPP).

Given the only "clean firm" resources provided to the model were geothermal and biomass, SVCE views their selection in the later years of the planning horizon as a proxy for generic clean firm resources. While the organization may use geothermal and biomass to meet these needs, SVCE also continues to monitor and explore the portfolio value emerging technologies may be able to provide going forward, as discussed further in Section IV.a.ii below.

SVCE currently satisfies approximately 18% of its energy needs with geothermal resources and has long recognized the diversity benefits of these clean firm resources. These geothermal resources will help SVCE meet its decarbonization and electrification goals by providing a 24x7 source of carbon-free energy, which can help reduce reliance on natural gas resources.

SVCE is a member of CC Power, a joint procurement agency comprised of nine CCAs. CC Power recently announced Geothermal Exploration, Offtake and Development Engagement (GEODE) agreements with three geothermal developers with innovative approaches to development targeted at unlocking scale-up of in-state geothermal capacity[11]. CC Power sees these proactive relationships between off takers and industry as pivotal in overcoming the commercial and infrastructure challenges geothermal opportunities face. Additionally, as a joint procurement entity representing 30,000 GWh of collective annual load, CC Power is able to engage with a larger diversity of developers and opportunities with different risk profiles than what could be pursued by an individual load serving entity. While total geothermal capacity values in the Preferred and Alternate Conforming Portfolios represent modelled results, SVCE has mapped that capacity in its RDT to several potential GEODE agreements to help ensure the projects are prioritized in CAISO's TPP. These projects are principally focused on development opportunities in Northern California to avoid import constraints.

Despite the high portfolio value of geothermal resources, SVCE has seen significant challenges with site development due to limited locations and costly transmission upgrades required. EGS may provide opportunities for geothermal development more broadly, but it remains an emerging technology with increased risks. SVCE will also continue to monitor the characteristics of EGS offerings, specifically whether facilities can provide dispatchability and flexibility akin to natural gas plants. Depending on contract structure, such facilities could provide a valuable energy hedge to the portfolio.

Following the issuance of the MTR order, SVCE has consistently sought geothermal resources through its solicitation processes, both on its own and through CC Power. SVCE has procured additional

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[11] *CC Power Signs 3 GEODE Agreements to Incentivize California Geothermal Development*. (2026). Cacommunitypower.Org. https://cacommunitypower.org/cc-power-signs-3-geode-agreements-to-incentivize-california-geothermal-development/.

Geothermal since its 2022 IRP to meet this order. SVCE has seen significant increases in geothermal prices following the MTR order which the agency suspects is due to developer market power. Uncertainty around the actions of the CPE may also impact the market as some developers could be holding sites from the market in anticipation of a new order. Additionally, increased demand from large corporations, including technology companies seeking to power data centers, is impacting available supply. SVCE continues to view clean firm resources as a necessary component of a clean, reliable electricity system, but cautions the Commission on including similar resource carve-outs in future procurement orders due to the impact on affordability for customers.

SVCE's 2026 Preferred Conforming Portfolio selects significantly more geothermal than its 2022 plan, which ranged from 7 to 27 MW depending on the scenario. This is likely driven by the significant increase to the load forecast relative to 2022 as well as the expanded time horizon and lower allowable emissions in later forecast years.

k. Non-CAISO, including Out-of-State, Wind Planning

As with other resources selected in the PSP, SVCE modeled out-of-state wind (OOS wind) as a candidate resource for its 2026 IRP portfolios. In both conforming plans, OOS wind was selected. To ensure alignment with the IRP modeling assumptions, SVCE created candidate resources for Wyoming, New Mexico and Pacific Northwest wind. SVCE staff limited the wind build out based on observations from the market and review of the IRP inputs and assumptions. The Preferred Conforming Portfolio selected nearly 850 MW of wind, both in- and out-of-state by 2045. Of this, just over half, 448, was OOS wind. This is slightly less than SVCE's implied load share of the RESOLVE results. This does mean that SVCE assumes more than its load share allocation of in-state wind development but notes it may be viable given likely repowers on the system in the coming years. If SVCE cannot find sufficient in-state wind to meet its obligations, it may ultimately procure more out-of-state wind, if available, given the overall similar contributions to energy, emissions, and capacity. Across all model runs, SVCE consistently found OOS wind to be a beneficial resource for its portfolio due to its ability to offset evening emissions, provide reliability and contribute to annual clean targets at a relative discount to full firm clean resources such as geothermal.

SVCE has had bilateral discussions with developers for OOS wind resources, however transmission and cost continue to be a major barrier. Such opportunities are evaluated alongside others and are not penalized for being out-of-state as long as they can deliver to the CAISO. The viability of the project given the development stage of the transmission project and the ability to acquire import capacity rights is factored into the evaluation especially if the project is needed to meet specific procurement targets such as SB 350. SVCE discusses its evaluation of transmission availability more thoroughly in Section III.m below.

Given the substantial barriers to development of out of state wind, and the timelines associated with development of transmission, SVCE encourages the CPUC and CAISO to explore means to also enable development of the remaining wind sites within California, which may include reserving deliverability for

the technologies such as wind and geothermal that have site specific fuel requirements in the TPP. Additionally, SVCE urges the Commission to ensure that LSEs have proper incentives to repower existing California wind sites by ensuring they are given compliance value in the RCPPP. Despite potential barriers, given the potential cost effectiveness and diversity benefit of OOS wind to the CAISO system, SVCE supports the inclusion of OOS wind in the 2026-2027 IRP PSP as a means to help assess the pathway toward building sufficient transmission to allow these resources in the CAISO's TPP.

Since its 2022 IRP, SVCE signed 125 MW of the SunZia wind project located in New Mexico. This 3,650 MW project came online in May of 2026. The capacity of SunZia satisfies nearly all of the 130 MW selected by 2035 in SVCE's 2022 IRP. SVCE's 2026 IRP selects 448 MW of OOS wind in this year's Preferred Conforming Portfolio by 2045, incremental to the SunZia project. This shows a consistent pattern of wind being a desirable resource for the portfolio. The primary factor driving the overall increase in the portfolio is the load forecast, which is 68% higher in 2035 in this 2026 IRP than it was in 2022. SVCE continues to find that OOS wind is more desirable due to its higher capacity factor than in-state wind, but as noted above, recognizes long-term transmission development may meaningfully impact resource availability.

l. Offshore Wind Planning

In its 2026 modeling for the IRP SVCE included offshore wind as a candidate resource, utilizing the wind profiles provided by the CPUC in the RESOLVE and CSP tools. Because Ascend has no cost projections for offshore wind, SVCE developed costs by scaling the Ascend onshore wind costs in the ARS model based on the ratio of on and offshore wind costs provided in RESOLVE. The ARS capacity expansion tool did not select this resource in any of the scenarios modeled, likely due to its cost relative to out of state wind resources which provide many of the same attributes. This finding is consistent with SVCE's modeling efforts in its 2022 IRP. In addition to modeling results, SVCE staff also considers offshore wind in California to have significant development risk which makes it an unfavorable resource for the portfolio.

SVCE did consider the impact of offshore wind procurement by DWR on its portfolio as discussed in Section IV.a.x below. Should the Commission order offshore wind, it would likely have significant impact on LSEs actual procurement activities going forward. Given the risk of delay or failure of emerging technologies such as offshore wind, SVCE encourages the Commission to carefully consider how to ensure LSEs collectively balance ongoing procurement of both proven and emerging technologies to manage risks and help ensure affordability for California ratepayers.

m. Transmission Planning

Transmission needs for contracted resources

SVCE summarizes known transmission upgrades for its resources under contract in Table 13 below.

Table 13. Known transmission upgrades for SVCE contracted resources.

Project Name	Resource Type	Location	Queue Position	Station or Transmission Line	Interconnection Agreement?	Known Transmission Upgrades	Estimated Online Date
Aratina	Solar + Storage	Kern County, CA	1604	[redacted]	[redacted]	[redacted]	[redacted]
San Luis West	Solar + Storage	Fresno County, CA	1389	[redacted]	[redacted]	[redacted]	[redacted]
Fish Lake	Geothermal	Esmerelda County, NV		[redacted]	[redacted]	[redacted]	[redacted]
Ormat Nevada	Geothermal	Various (CA & NV)		[redacted]	[redacted]	[redacted]	[redacted]
Ormat Nevada - Dogwood	Geothermal	Imperial County, CA		[redacted]	[redacted]	[redacted]	[redacted]
Ormat Nevada - Truckhaven Phase 1	Geothermal	Imperial County, CA		[redacted]	[redacted]	[redacted]	[redacted]

				[redacted]
Grace	Solar	Riverside, CA	1761	
Yellow Pine III	Storage	Clark County, NV	1654	
Garden Green	Solar + Storage	Santa Clara County, CA	2358	
Darden	Solar + Storage	Fresno, CA	1949	
Willow Rock	Compressed Air Energy Storage	Kern County, CA	1782	

SVCE has developed its 2026 Preferred Conforming Plan resource portfolio to ensure consistency with the transmission planning assumptions and framework established by the CPUC in its IRP proceeding and by the CAISO in its annual TPP.[12] Although the CPUC requirements identify the CAISO 2024-2025

[12] *2026 Narrative Template*. (2026, January 16). California Public Utilities Commission. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-

Transmission Plan and the 2025-2026 TPP busbar mapping results as the most recent reference points, SVCE has elected to apply a more conservative benchmark by also evaluating consistency against the most recent CAISO 2025-2026 Transmission Plan[13] and CPUC Recommended Base Case Portfolio for the 2026-2027 TPP, as reflected in the busbar mapping dashboard dated January 14, 2026.[14] This forward-looking benchmark provides additional assurance that SVCE's portfolio remains consistent with the most current resource and transmission expectations.

Consistent with CPUC guidance, SVCE has reviewed and relied upon the following sources in developing this discussion:

- CAISO Transmission Capability Estimates White Paper, Version 2024 (August 2024)[15]
- CAISO 2025-2026 Transmission Plan (most recently approved Transmission Plan)[16]
- CPUC Assumptions for the 2026-2027 TPP – Final Modeling Assumptions Report and Final Busbar Mapping Results (February 2026)[17]
- CAISO Data Transparency Matrix and Points of Interconnection (POI) Heat Map[18]
- CAISO Transmission Development Forum materials[19]

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procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/2026-narrative-template.docx Transmission Planning Section, 2026 IRP Filing Requirements.

[13]*2025-2026 Transmission Plan*. (2026). California Independent System Operator. https://stakeholdercenter.caiso.com/InitiativeDocuments/Board-Approved-2025-2026-Transmission-Plan.pdf.

[14]*Dashboard for the Busbar Mapping of the 2026-2027 TPP Base Case Portfolio*. California Public Utilities Commission. Retrieved July 16, 2026, from https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/assumptions-for-the-2026-2027-tpp/final-full-dashboard-for-the-decision-26-27-bc.xlsx

[15]*Transmission Capability Estimates for use in the CPUC's Resource Planning Process*. (2024). California Independent System Operator. https://www.caiso.com/documents/transmission-capability-estimates-white-paper-2024.pdf.

[16]*2025-2026 Transmission Plan*. (2026). California Independent System Operator. https://stakeholdercenter.caiso.com/InitiativeDocuments/Board-Approved-2025-2026-Transmission-Plan.pdf.

[17]*Resource-to-Busbar Mapping & Other Modeling Assumptions for the 2026-2027 Transmission Planning Process*. (2026). California Public Utilities Commission. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/assumptions-for-the-2026-2027-tpp/report_redline.pdf.

[18]*Points of interconnection heatmap*. (2026). Caiso.Com. https://www.caiso.com/poi-heatmap/.

[19]Senate Bill 1174 requires the CPUC, CEC, and CAISO to assess and report on transmission system delays and constraints impacting clean energy development. To facilitate this, CAISO hosts biannual Transmission Development Forums to provide actionable, project-by-project status updates on approved transmission projects

- CPUC Transmission Project Review Process

Where information from these sources was not directly applicable to SVCE's Preferred Plan, the rationale is explained below. SVCE's 2026 IRP filing also builds on its prior 2022 IRP transmission discussion, which demonstrated consistency with the CAISO 2022-2023 TPP.

Transmission Needs for Planned Resources

SVCE's Preferred Conforming Portfolio, as reflected in the RDT and supporting data includes the new build resources between 2027 and 2045 as shown in Table 14 below.

Table 14. SVCE Planned Resource Build 2027 through 2045

Resource Type	Total New Build (MW)		Mapped CAISO Study Area
	Through 2036	Through 2045	
Solar – Northern CA	0	500	PG&E NGBA / GBA / Fresno/Kern
Solar – Southern CA	0	350	SCE Eastern / SCE Northern
In-state Wind – Northern CA	125	250	PG&E NGBA / GBA
In-state Wind – Southern CA	0	150	SCE Eastern / EOP
OOS Wind – Wyoming	35	47.5	via SCE interties
OOS Wind – New Mexico	350	360	via SCE interties
OOS Wind – Pacific NW	40	40	via PG&E NGBA intertie
Hybrid Solar+Storage – N. CA	0	380	PG&E NGBA / GBA / Fresno/Kern
Hybrid Solar+Storage – S. CA	140	430	SCE Eastern / SCE Northern
Geothermal	102 (77 by 2035)	325	PG&E NGBA, SCE Eastern, SCE NOL
Storage (4h)	0	10	Multiple
Storage (8h)	20	20	Multiple
Storage (12h)	70	95	Multiple

The portfolio is deployed gradually beginning in the early 2030s, with material additions of solar, in state and OOS wind, geothermal, and storage resources continuing through 2045. Aggregate quantities are

and network upgrades. *California ISO transmission development forum*. (2025). Caiso.Com. https://stakeholdercenter.caiso.com/recurringstakeholderprocesses/transmission-development-forum.

modest relative to the multi-gigawatt system-wide resource additions reflected in the 2026-2027 TPP base case portfolio and generally require less than SVCE's implied load share of the TPP assumptions except as noted below.[20]

Given SVCE cannot predict the site locations offered in its future RFOs, it has no strong preferences for generic (uncontracted) resource location and followed the PSP distribution of solar/storage hybrid, Northern California wind, OOS wind, and most geothermal resources. For the CC Power geothermal projects (see below), SVCE has specified zonal locations in the RDT that reflect the projects' known interconnection points and requests these not be relocated by staff during busbar mapping. This spreads resources in many transmission zones throughout California and CAISO border. For resources with CODs after December 31, 2029, SVCE does not specify a location, with the exception of some geothermal resources noted below. However, SVCE uses multiple sources of information on transmission upgrades, interconnection, and resource planning. For instance, the Northern California wind is a proxy for generic wind resources in Northern California, Solano, and the Carrizo area.

For planned resources, SVCE evaluated transmission deliverability using three layers of information: (i) the CAISO Transmission Capability Estimates published in August 2024,[21] which identify FCDS and EODS capability and known upgrade pathways across CAISO study areas; (ii) the busbar mapping results of the CPUC Recommended Base Case Portfolio for the 2026-2027 TPP,[22] which inventory expected resource development across each CAISO study area; and (iii) the CAISO Data Transparency Matrix and POI Heat Map[23], which provide visibility into substation-level interconnection capacity.

SVCE's in-state solar and wind procurements are mapped to PG&E NGBA, PG&E Greater Bay, PG&E Fresno, PG&E Kern, SCE Eastern, and SCE Northern study areas. Comparison against the 2026-2027 TPP base case mapping confirms that:

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[20] *2026-2027 Transmission Planning Process Draft Transmission Plan. (2026). California Independent System Operator. https://stakeholdercenter.caiso.com/InitiativeDocuments/Presentation-2026-2027-Transmission-Planning-Process-Feb-24-2026.pdf.*

[21] *Transmission Capability Estimates for use in the CPUC's Resource Planning Process*. (2024). California Independent System Operator. https://www.caiso.com/documents/transmission-capability-estimates-white-paper-2024.pdf.

[22] *2026-2027 Transmission Planning Process (TPP) Proposed Decision Modeling & Analysis*. (2026). California Public Utilities Commission. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/assumptions-for-the-2026-2027-tpp/26-27-tpp-pd-resolve-and-servm-analysis.pdf.

[23] *Points of interconnection heatmap*. (2026). Caiso.Com. https://www.caiso.com/poi-heatmap/.

- SVCE's Northern California solar and wind volumes fall well within the FCDS/EODS capacity envelopes assumed in the 2026-2027 TPP base case for PG&E NGBA, GBA, Fresno and Kern study areas.
- SVCE's Southern California solar and hybrid resources are aligned with the substantial solar buildout in SCE Eastern and SCE Northern areas assumed in the 2026-2027 TPP, and benefit from upgrades already under construction or approved by the CAISO Board through prior TPP cycles.
- Storage resources (4-hour, 8-hour, and 12-hour) are assumed to be co-located or sited at substations with sufficient interconnection capability identified through the POI heat map.

While SVCE's planned solar and storage build fall well within its implied share of the 2026-2027 TPP base case assumptions, the SVCE Preferred Conforming Plan includes more than its implied share of the expected in-state wind capacity in the TPP portfolio. In its 2021-2022 Transmission Plan, the CAISO approved a new 500/230 kV substation (Collinsville) in the solano county creating access to wind resources.[24] The Collinsville project is expected to be highly effective in addressing several deliverability constraints to facilitate full capacity deliverability of the Solano area wind generation. The Commission's Modeling Assumptions also confirm this for the CAISO 2026-2027 TPP. Therefore, the base portfolio provided by the Commission for the CAISO 2026-2027 TPP assume 780 MW and 244 MW of wind resources in the PG&E North of Greater Bay Study and PG&E Greater Bay Study Area zones, respectively, adding to more than 1,000 MW in Northern California by 2036, as they can likely be accommodated on the existing and approved CAISO transmission.[25] Given this information, SVCE assumes that its procurement of Northern California wind resources in 2030-2036 is not expected to trigger any transmission delivery network upgrades (DNU). Furthermore, SVCE also estimates that approximately 4 GW of in state wind resources on the CPUC baseline resource list are likely to reach end of life and require repowering by 2045. Such resources, if eligible for IRP procurement mandates, may satisfy a portion of SVCE's going forward in-state wind needs. As noted above in Section III.k, SVCE encourages the state to consider means to ensure development of in-state wind and geothermal resources, including potentially holding deliverability for location limited resources in the CAISO TPP process.

SVCE's planned procurement of 102 MW and 325 MW of geothermal by 2036 and 2045, respectively aligns with 5,105 MW of CAISO-wide procurement assumed in the 2026-2027 TPP portfolios.[26] Table 15 shows

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[24] *ISO Board Approved 2021-2022 Transmission Plan*. (2021). California Independent System Operator. https://stakeholdercenter.caiso.com/InitiativeDocuments/ISOBoardApproved-2021-2022TransmissionPlan.pdf. Page 6.

[25] *Compact dashboard for the PD 26-27 TPP base case*. California Public Utilities Commission. Retrieved July 10, 2026, from https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/assumptions-for-the-2026-2027-tpp/compact-dashboard-for-the-pd-26-27-tpp-base-case.xlsx**.** Summary by CAISO Zone tab

[26] *Ibid*.

a comparison of assumed geothermal resources in Base Portfolio assumed in the 2026-2027 TPP versus in the 2025-2026 TPP.

Table 15. A Comparison of Assumed Geothermal Resources in Base Portfolio: 2026-2027 TPP vs. 2025-2026 TPP

CAISO Study Area	2026-2027 TPP	2025-2026 TPP
PG&E North of Greater Bay Study Area	3,065	123
PG&E Greater Bay Study Area	29	-
PG&E Fresno Study Area	265	-
SCE Metro Study Area	-	389
SCE North of Lugo (NOL) Study Area	303	10
East of Pisgah Study Area	908	517
SCE Eastern Study Area	7	500
SDG&E Study Area	529	100
Total (MW)	**5,105**	**1,639**

Given the higher level of geothermal resources assumed in the 2026-2027 TPP Base portfolio relative to the 2025-2026 TPP Base portfolio, SVCE expects additional policy-driven transmission triggered in the 2026-2027 TPP than those identified in the CAISO 2025-2026 Transmission Plan. For example, the Collinsville-Tesla 500 kV Line constraint in the PG&E North of Greater Bay Area was exceeded by the mapped 2035 portfolio in the 25-26 TPP. The full TPP analysis is necessary to confirm if the White Paper upgrade is the optimal solution or if a potentially different solution is applicable. However, the CAISO Transmission capability estimates for CPUC's resource planning process indicate that the existing CAISO transmission has adequate buffer to accommodate a significant portion of this geothermal portfolio. As noted in Section III.j above, SVCE views the geothermal capacity in the later years of the portfolio as a proxy for firm, clean resources, meaning that ultimately a portion of this need may be satisfied by emerging technologies, such as carbon capture and storage, in the future.

SVCE's Preferred Plan includes approximately 447.5 MW of out-of-state wind (Wyoming, New Mexico, and Pacific Northwest), modeled as delivered to the CAISO border via existing interties. The 2026-2027 TPP base case includes substantial volumes of out-of-state wind delivered into PG&E GBA, SCE Metro, SCE Eastern, and East of Pisgah study areas,[27] indicating that the planning framework anticipates MIC expansions and/or transmission upgrades to support these imports. SVCE's quantities are a subset of the modeled OOS wind buildout and are expected to be accommodated within the MIC expansion and intertie upgrades being studied through the CAISO TPP.

A portion of SVCE's procurement of the OOS wind procurement can be accommodated within the CAISO-wide procurement of these resources as described below.

- New Mexico wind accessed via SunZia Transmission Project: CAISO has secured deliverability (MIC) of 2,131 MW thru Palo Verde. [28] SVCE understands that Sunzia will deliver the power to the CAISO grid at Palo Verde, and CAISO has approved in-CAISO transmission upgrades to ensure deliverability of 2,131 MW between Palo Verde and the CAISO load centers.
- Wyoming wind accessed via Transwest Express Transmission Project: 1.5 GW of the 3 GW HVDC line from Aeolus to IPP is allocated to CAISO, delivered via a second 1.5 GW HVAC line from IPP to Harry Allen. 900 MW of wind resource at Aeolus is under development with an estimated COD by 2030. [29]
- Pacific Northwest Wind is accessed via existing transmission.

SVCE's planned New Mexico wind resources beyond those that can be accessed via SunZia Transmission Project are assumed to be delivered on new transmission. The CAISO is currently investigating transmission solution options for integrating these additional New Mexico wind resources.[30] SVCE's selected wind in New Mexico would necessitate use of roughly double its implied load share of the TPP resource allotment by 2041. If other LSEs plans report similar levels of New Mexico wind resources additional transmission capacity may be necessary to study. SVCE model results generally found New Mexico wind to have significant value, suggesting that even with additional transmission costs they may still be a cost-effective resource for California. Ultimately SVCE may consider alternative

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[27] *Ibid*.

[28] *Proposed Updates to the Busbar Mapping Methodology*. (2026). California Public Utilities Commission. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2024-2026-irp-cycle-events-and-materials/assumptions-for-the-2027-2028-tpp/mag-webinar_final_slides_20260616.pdf.
Page 21

[29] *Ibid*.

[30] Board Approved 2025-2026 Transmission Plan Appendix F Policy Assessment. (2026). Retrieved July 21, 2026, from https://stakeholdercenter.caiso.com/InitiativeDocuments/Board-Approved-2025-2026-Transmission-Plan-Appendix-F-Policy.pdf. See Section *F.16. Exploring options for integration of out-of-state wind resources* pp.203-205.

resources for procurement if no viable wind projects are offered to the organization through RFOs or bi-lateral negotiations.

Relatively small quantities of geothermal resources from Nevada and New Mexico are assumed to be imported via existing transmission, with the SVCE MIC delivered to PG&E NGBA and SCE Eastern areas, respectively.

Consistent with the CPUC's principle of maximizing utilization of existing transmission capability, SVCE has prioritized locations where existing FCDS or EODS capacity is available, or where upgrades are already under construction or CAISO board approved. To SVCE's knowledge, SVCE's Preferred Plan does not include resources that would require entirely new, unstudied transmission corridors that have not been previously evaluated in the CAISO TPP.

Consistent with the CPUC busbar mapping methodology, which incorporates LSE scoring of CAISO interconnection queue projects as a commercial interest signal, SVCE has reviewed the active interconnection queue projects in the study areas where its planned resources are located. SVCE's scoring of interconnection projects was informed by:

- Whether the project corresponds to a resource type SVCE intends to procure,
- The project's interconnection study status (e.g., Phase I/Phase II completion, IA execution),
- The project's location relative to areas with available FCDS or EODS capability, and
- The project's expected commercial operation date relative to SVCE's procurement timeline.

SVCE has reviewed active CAISO interconnection queue projects in the study areas where its planned resources are located, considering project status, COD, location, and resource type. SVCE's commercial procurement strategy has been informed by these factors. SVCE's scoring results were incorporated into its commercial procurement strategy and reflected in the RDT to the extent applicable.

SVCE's 2026 Preferred Plan is necessarily materially different from its 2022 plan given the CPUC has increased the agency's 2035 load forecast by 68%. However, like its 2022 plan, SVCE has endeavored to ensure there are reasonable pathways to map its selected resource portfolio to the 2025-2026 and 2026-2027 TPP base case portfolios. As with past IRPs, SVCE reiterates that ultimately the resources procured to meet the portfolio needs will be dependent on market offers received through RFPs and bilateral negotiations. Where SVCE has refined its resource locations relative to prior filings, the refinements reflect (i) updates to SVCE's commercial procurement activity (notably the CC Power geothermal contracts), and (ii) the most recent transmission capability information published by CAISO.

In summary, SVCE's Preferred Conforming Plan resource portfolio is consistent with the CPUC IRP base transmission planning framework and with the CAISO 2024-2025 and 2025-2026 Transmission Plans and using a more conservative benchmark of the 2026-2027 TPP Recommended Base Case Portfolio busbar

mapping results.[31] SVCE's contracted and planned resources are sited within transmission capability envelopes that have been studied or are being studied through the CAISO TPP. The CC Power geothermal projects represent investment-grade information appropriate for CAISO transmission planning purposes; all other resources are appropriately treated as flexible for staff mapping and modeling. SVCE will continue to monitor and update its transmission deliverability analysis as new CAISO and CPUC materials become available. Further, consistent with CAISO's TPP, SVCE supports the consideration of advanced reconductoring and other grid enhancing technology where they can cost-effectively improver deliverability, reduce congestion, and leverage existing transmission infrastructure.

IV. Action Plan

a. Proposed Procurement Activities and Potential Barriers

As a community-driven LSE, SVCE works with its governing board to set policy, strategies, and directives. In addition to establishing clean energy targets in 2024, in 2018 SVCE's board approved a Decarbonization Roadmap[32] which set a path for achieving economy-wide decarbonization goals. SVCE's decarbonization approach consists of four central tenets that are all necessary to achieving deep decarbonization: procure and maintain a sustainable, affordable and carbon-free power supply; electrify the built environment; electrify mobility; and promote energy efficiency and successful grid integration. SVCE staff is actively reviewing and updating this Decarbonization Roadmap and expects to take the 2026 update to the Board by the end of the year.

At the outset of this Action Plan, SVCE also reiterates that both of its conforming plans rely on an aggressive load forecast which may not come to fruition. SVCE's internal load forecasting team is closely monitoring both electrification and data center developments in its service territory to ensure it is able to meet its customers' needs in a cost-effective manner. If the assigned load forecast in this IRP does not materialize, SVCE's actual necessary procurement activities may differ significantly from its Preferred Conforming Portfolio. Relatedly, enforcement of this, or future IRP plans, may have significant costs and risks for SVCE's customers.

As in past cycles, SVCE continues to view the CPUC's "order by order" based approach to procurement as detrimental to the implementation of LSEs IRP plans. Each order establishes strict timelines and new resource accounting methods that fundamentally alter viable procurement decisions for LSEs. As such

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[31] *Ibid*.

[32] *Decarbonization Strategy Programs & Roadmap*. (2018). Silicon Valley Clean Energy. https://www.svcleanenergy.org/wp-content/uploads/2019/03/Decarbonization-Strategy-Programs-Roadmap_Dec-2018.pdf.

any future CPUC procurement orders may meaningfully alter SVCE's procurement activities. SVCE strongly encourages the CPUC to act expeditiously to finalize the RCPPP to ensure LSE IRP plans can be made as accurate as possible going forward. This is discussed in further detail in Section V below.

As SVCE's efforts to help the local community decarbonize continue to expand and scale, it hopes to drive non-linear increases in DERs, EVs, all-electric buildings, and customer literacy on Time of Use (TOU) rates. These changes will significantly impact not only the load, but also the load shape over time, resulting in changes to both our RA needs and hourly emissions. SVCE's decarbonization approach prioritizes innovation and experimentation. This approach, and the continuously evolving nature of the regulatory and planning space, necessarily results in some degree of uncertainty of the impact and timing of its efforts. SVCE will continue to monitor and forecast the impacts of its decarbonization approach and its impact on SVCE's supply side needs, but views flexibility in planning going forward as necessary to best serve its customers.

SVCE will continue to monitor its procurement needs and the marketplace to assess when to time new solicitations. While SVCE may indicate preferred resource types in such solicitations SVCE generally reviews offers from any clean generator or storage resource and expects to continue to do so. SVCE expects to issue one to three Requests for Offers (RFOs) for long-term projects each year going forward. Staff will evaluate all offers based on the best fit for the portfolio given its open position, outlook and compliance obligations at that time. SVCE discusses financial and viability considerations for specific resource types in the sections below.

i. Resources to meet IRP mandated procurement requirements, including D.21-06-035 and D.23-02-040:

SVCE has included all resources contracted as of April 1, 2026 in its IRP portfolio, including those being used to meet its obligations under D.21-06-035 and D.23-02-040. As described in its bi-annual remediation plans submitted to the CPUC, the agency has worked diligently to address project delays and cancellations when they have occurred. Should any additional projects intended for IRP compliance have similar issues going forward, SVCE will work to address such problems with the developers and will keep the CPUC and its staff informed of the status of the project.

As described in Section III.a.i, SVCE also included generic resources in its portfolio which it views as a proxy for its obligations under D.26-02-057. SVCE included a mix of geothermal, LDES and hybrid resources based largely on the results of its first RFO intended to meet this order which was closed on March 4, 2026. SVCE expects to issue one to three RFOs for new long-term contracts each year on a forward-looking basis to address both the needs of the recent procurement order and any future orders along with procurement needs as established in the RCPPP.

ii. Plans for resources that are currently non-candidate in CPUC's IRPs not described above

SVCE did not model candidate resources beyond those assumed in the CPUC's candidate resource pool given both timing constraints and a desire to align with the CPUC's inputs and assumptions.

SVCE encourages offers of emerging technologies into its RFOs for long-term resources. In its first long-term RFO in 2026 SVCE expressed a preference for certain technologies including bioenergy carbon capture, advanced nuclear, linear generators, other clean internal combustion engine technologies and non-lithium-ion battery technologies.

SVCE has historically been willing to explore and contract with developers of emerging technologies as evidenced by its contracting of the Willow Rock CAES facility and Tumbleweed LDES, the first operational eight-hour lithium-ion battery project in California. Given many of these technologies may carry more development risk than more standard renewable technologies, SVCE has found benefits in its membership in CC Power, a joint powers authority which has enabled its 10 CCA members to do joint procurement, particularly for emerging technologies.

iii. Other renewable and/or zero carbon resources not described above

As discussed in Section III.j above, SVCE views the inclusion of significant quantities of geothermal in its Preferred Conforming Portfolio as a proxy for clean, firm capacity more broadly and may ultimately procure such resources to meet the needs of its portfolio in lieu of only geothermal. While the timing for this IRP cycle did not allow for SVCE to model additional resource types beyond the candidate resources provided by the CPUC, the SVCE planning team intends to further explore the value proposition of emerging technologies, such as carbon capture and storage and small modular reactors, for its portfolio in more detail in 2027.

iv. Other energy storage not described above

As noted in the response to Section IV.a.v above, SVCE did not allow any candidate resources beyond those in the IRP modeling tools. SVCE's procurement team continues to assess offers and opportunities as they are presented. In particular, SVCE sees potential diversification value from procuring nonlithium-based batteries in the future, such as its Willow Rock CAES storage project, and will continue to explore the potential of such technologies.

v. Other demand response not described above

Ensuring system-wide affordability and reliability is of particular importance to SVCE. For this reason, SVCE has several initiatives underway to shape demand that are part of its broader demand flexibility and demand response strategy. New, flexible end-use loads, including EVs, BTM batteries, heat pumps, and smart controls have introduced new challenges, but also opportunities for SVCE to help shape demand in ways that could benefit our customers and SVCE's operations.

SVCE is currently evaluating the potential costs and benefits of numerous demand response initiatives, and the market mechanisms that will allow SVCE to transact for their value. These potential programs include battery storage, C&I demand response, as well as new rate structures. SVCE is actively exploring the possibility of becoming a CAISO Demand Response Provider, by developing a market-integrated DR program for C&I customers.

SVCE views the primary opportunities in demand shaping as being in load-modifying programs that shift load every day, and market-integrated demand response programs that can generate RA and energy revenue. SVCE views load modifying programs as a best-fit option for daily load shaping, but also as a solution when market barriers limit or prohibit their use as a proxy demand resource. Conversely, event-based demand response may also provide customers with the opportunity to reduce demand charges, while also generating qualified RA.

SVCE considers its portfolio of demand response activities to include demand flexibility and efforts to test dynamic rates. Per the CPUC's definition, dynamic rates are a type of demand response.[33] In response to Load Management Standards regulations set at the California Energy Commission (CEC) in 2023, SVCE began developing a strategy for offering its customers the option to either enroll in a program or rate that is tied to an hourly real time price. Since then, SVCE has partnered with PG&E to offer customers the option to enroll in a dynamic rate pilot. As part of this pilot, SVCE hopes to learn how its customers respond to dynamic rates and whether dynamic rates are better suited to certain types of customer classes over others. Mid-term evaluation data on pilot results will be available in the Summer of 2026, with final evaluation data available Spring of 2028. This data will inform aspects of SVCE's demand response and broader load shifting strategy.

This work layers on top of pilots and programs SVCE has already tested in previous years, such as the GridShift: EV Charging app (1,500+ EVs enrolled in a managed charging app, including a cohort testing hourly price signal response), Lights On Silicon Valley (a partnership with Sunrun to aggregate local behind-the-meter batteries to provide daily load shaping for SVCE), and an E-ELEC pilot (an SVCE-specific time-of-use rate built on E-ELEC that had a higher peak price signal and a 30% lower off-peak price signal for generation). These programs have led to some load shifts and customer savings, but have not led to major, countable adjustments to SVCE's load shape to date. However, the learnings thus far have been pivotal in understanding the potential and barriers to widespread demand flexibility that influence SVCE's current strategy.

Because SVCE's active demand response programs and rates are in development or pilot stage, SVCE did not explicitly include any expected change to its load shape when modeling the IRP portfolio or in developing its CSP. SVCE will continue to explore what programs and rate structures best balance the

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[33] *Guiding Principles for Demand Response in California. (2025). California Public Utilities Commission. https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M582/K074/582074542.PDF, Page 3.*

value of load shaping against program costs and expects to use these findings to inform its next Load Management Standards plan due to the CEC in 2027.

vi. Other energy efficiency not described above

Energy efficiency is an essential part of SVCE's four tenets to decarbonization, providing real customer value as well as emissions reductions. At a high level, SVCE has long envisioned its role in energy efficiency as being additional to the role that the IOU, Regional Energy Network (REN), and CCA energy efficiency administrators already play. SVCE has therefore focused most programmatic offerings on electrification or decarbonization initiatives since they have historically played a relatively small part of the statewide energy efficiency portfolio. At the same time, SVCE also encourages customers to leverage all PG&E, REN, or state programs that are available via active outreach to customer and resource links on SVCE's website.

One of the benefits of SVCE's self-funded programs is that they do not operate in competition with the ratepayer funded PG&E programs. SVCE's electrification and decarbonization programs are very closely related to traditional energy efficiency programs, although SVCE's programs can be assessed outside of the broader energy efficiency portfolio given SVCE's mission statement.

SVCE delivers both residential and non-residential programs, including a C&I Decarbonization Program, a small/medium business heat pump program, and a number of programs for residential customers designed to support a shift away from natural gas appliances and equipment, in favor of high efficiency electric equivalents.[34] Some of these programs also provide incentives for switching from inefficient electric equipment to high efficiency electric alternatives.

While SVCE does not currently expect to apply to administer dedicated energy efficiency programs, SVCE continues to advance energy efficiency with existing decarbonization programs, and through coordination with BayREN and PG&E.

vii. Other distributed generation not described above

As mentioned in Section IV.a. above, SVCE's VPP strategy involves developing programs to enroll and control behind-the-meter distributed generation resources. SVCE has contracted with a Distributed Energy Resources Management System (DERMS) software company to provide infrastructure technology services to support load modification or flexibility operations for program designs (e.g. battery storage, C&I demand response), and to engage flexibility service providers.

Additionally, SVCE supports the development of distributed generation projects directly in its service territory through its Community Grants Program. Since inception, SVCE has awarded grants to 9 member agencies for solar photovoltaic plus battery, and battery only projects. These grants help SVCE's

[34] *Appliance Marketplace*. (2026). Svcleanenergy.Org. https://ehub.svcleanenergy.org/products.

member agencies identify, prioritize, and implement resilient energy strategies by contributing a portion of the total project's costs.

Table 16. SVCE solar + battery, and battery only community resiliency projects

Jurisdiction	Project Type	Location
Los Altos Hills	Battery to existing solar	Town Hall
Morgan Hill	Battery to existing solar	Recreation Center
Los Gatos	Battery to existing solar	Library
Mountain View	Battery to existing solar	Community Center
Milpitas (Project 2 of 2)	Solar + battery	Community Center
Unincorporated Santa Clara County	Solar + battery	South County Fire Station
Milpitas (Project 1 of 2)	Solar + battery	Senior Center
Sunnyvale	Solar + battery	City Hall
Los Altos	Solar + battery	Community Center
Monte Sereno	Solar + battery	City Hall
Sunnyvale	Solar + battery	Fire Station

Beyond the Community Grants Program, in SVCE's territory, approximately 15% of SVCE's customers generate solar. Almost all of these solar customers are residential customers who installed solar under Net Energy Metering tariff NEM1 and NEM2. Approximately 12,000 customers are under NEM1, 27,000 customers under NEM2, and 4,000 are under Net Billing Tariff (NBT). Since the transition to NBT, there has been an 83% decrease in new NEM customer applications year over year, suggesting the IEPR forecast for the IRP for BTM PV may be too aggressive.

SVCE's solar rate structures (NEM, NEM 2.0 and NBT) and Net Surplus Compensation currently mirror the IOU's. SVCE offers a more attractive net surplus compensation rate (2.5X) for CARE/FERA customers who generate an annual surplus. SVCE continues to actively promote pairing of battery storage with solar, and to the extent possible, solutions that enable alignment of BE loads with solar production.

An essential part of identifying solutions is modeling the monetary value of BTM storage for SVCE and customers. At the start of 2026, SVCE, in partnership with our DERMS provider, conducted a thorough Net Economics Solar and Storage Analysis of the value of BTM storage to SVCE and end customers across dozens of residential scenarios. The scenarios included 8760 load profiles of customers with and without solar and storage, different NEM tariffs, and various charging and discharging patterns based on market price signals. The monetary value to SVCE was inclusive of energy, capacity, GHG, and other attribute costs SVCE considers when procuring power, as well as costs offset by a VPP program.

SVCE found that from a customer's bill savings perspective, installing solar and storage under NBT is likely the best scenario due to reduced generation and delivery charges. However, the value to SVCE is not as straightforward. Current market and regulatory dynamics introduce challenges that prevent SVCE

from accessing the full benefits of BTM storage. These dynamics include inability to access the grid's distribution benefits and inability to be compensated for energy exported for market-integrated resources. Although SVCE found that the benefits of developing an upfront storage incentive program currently do not outweigh the costs, SVCE looks to innovate pathways to decarbonization and will continue to research and advocate for solutions that support distributed generation. Part of the advocacy effort includes advocating for proxy demand response (PDR) battery resources to receive credits for exports as part of the changes the CAISO is considering in the Demand and Distributed Energy Market Integration (DDEMI) stakeholder initiative. Concurrently, in the CPUC's RA proceeding, SVCE, through its trade association, has advocated for the CPUC to develop a qualifying capacity (QC) methodology for PDRs capable of exports. Receiving the full RA program and energy market value of BTM storage is essential to fully unlocking the cost and reliability benefits of distributed generation and storage. Both for SVCE to be able to offer incentives at a level commensurate with the true value of these assets to the grid, and to ensure that end customers are getting the most value possible from their investments.

viii. Transportation electrification, including any investments that correspond to different levels than what is included in Integrated Energy Policy Report (IEPR)

Emissions from transportation comprise the largest source of GHG emissions in SVCE's territory, and SVCE has created programs to tackle some of the hardest challenges in this sector. SVCE's transportation electrification focus continues to be on scaling accessible EV charging infrastructure to support rapid and widespread adoption of EVs. Silicon Valley already has some of the highest EV penetration in the state, and SVCE expects to see this trend continue. However, given the number of early adopters and recent federal policy changes, SVCE views the likely growth of EV demand in the territory to be closer to 39% over the next decade versus the IEPR's 56% assumption.

SVCE has a portfolio of transportation electrification programs to accelerate EV adoption and EV charging deployment. To date, these programs have incentivized the installation of over 700 EV charging ports, 68% of which are installed in multifamily housing. In 2020, SVCE partnered with four other LSEs across San Mateo and Santa Clara Counties on the California Electric Vehicle Infrastructure Project (CALeVIP 1.0), which is a regional deployment of a statewide program co-funded by the CEC. The CEC and SVCE each contributed $6M, for a total of $12M to incentivize new EV charging installed in SVCE territory in the 2020-2026 timeframe.

SVCE funds several of its own programs to address EV adoption barriers for multifamily property tenants, who adopt EVs at disproportionately lower rates than single-family property residents with home charging access. Since 2022, SVCE's Multifamily EV Charging Incentive Program has provided rebates for Level 1 and Level 2 Electric Vehicle Supply Equipment (EVSE) and allows charging equipment to be installed in both shared and assigned parking spaces, addressing the needs of a wider range of property types. SVCE has also provided no-cost technical assistance to multifamily property managers to demystify the charging installation process, including customized site plans and contractor bidding support. For deed-restricted affordable housing properties, which often lack funding for capital improvements, SVCE's Multifamily Retrofits program provides no cost direct installation services to fully

electrify properties and add EV charging for residents and staff. From 2022-2024, SVCE also ran a pilot program, Priority Zone DC Fast Charging, which provided incentives for three fast-charging stations near dense multifamily neighborhoods, recognizing that convenient and reliable fast charging is also an important solution for renters with EVs. Most recently, in 2025 SVCE funded three Innovation Onramp pilots to test solutions to reduce charging costs at multifamily properties through virtual submetering and a novel direct-to-meter wiring device.

To help address high upfront cost barriers to EVs, SVCE launched an income-qualified EV Rebate Program available at the point of sale at participating dealerships or post-purchase. Since late 2024, this program has helped more than 400 eligible customers with their EV purchase or lease. SVCE recognizes the importance of educating customers about the benefits of electrification, and partners with community-based organizations to offer EV education opportunities via webinars, EV discount campaigns, and in-person EV Ride & Drive events.

SVCE also partners closely with member agencies to support smart policy and strategic decarbonization projects. In 2022, SVCE and its member agencies renewed efforts to adopt local building codes that would exceed the state code in promoting decarbonization benefits. These Reach Codes included requirements for installing EV charging access to reach 100% of multifamily resident parking spaces in new construction, which was later incorporated into the 2025 state code. SVCE provides no-cost technical assistance for fleet electrification planning to 15 public fleets in the territory, as well as multiple rounds of municipal and community decarbonization grants to help fund the implementation of these plans.

Despite the rollback of federal support and funding for transportation electrification, SVCE remains committed to advancing programs and policies that further state and local EV adoption goals. SVCE's programming seeks to fill gaps and remove barriers to ensure that all customers have access to clean transportation options. In the coming year, SVCE plans to expand the EV Charging Incentive Program to workplaces and public sites and launch an income-qualified e-bike voucher program to promote alternative e-mobility solutions.

A challenge SVCE continues to see affecting transportation electrification is with energization timelines and permitting processes that drive up project costs, delay EV charger installations, and ultimately limit the state's ability to meet its economy wide GHG goals. As mentioned below, SVCE is working with its member agencies to reduce friction in permitting processes but will look to CPUC action to accelerate the energization process that IOUs control. Although the CPUC has adopted timelines by which IOUs such as PG&E must complete energization services, the timelines remain overly extended and have not alleviated customer dissatisfaction with delays.

ix. Building electrification, including any investments that correspond to different levels than what is included in Integrated Energy Policy Report (IEPR)

In 2018, SVCE published the Decarbonization Strategy & Programs Roadmap, a strategic guiding document outlining actions SVCE could pursue towards decarbonization of power supply, buildings, and transportation. A series of additional strategic documents were developed in the following years, including Joint Action Plans for decarbonizing the building and transportation sectors, and the Clean Pathways long-term supply strategy. Key program areas were identified, along with areas for additional innovation and research. These guiding documents are shown in Figure 14 below.

Figure 14. Strategic documents informing decarbonization strategies for power supply, buildings, and transportation.

Building on these initial strategic documents along with 7 years of implementing programs, collecting data, and learning from SVCE's and other program implementers' experiences, SVCE is drafting an updated strategic planning document known as the Integrated Decarbonization Roadmap. This updated guiding document will identify key electrification barriers, articulate SVCE's role in the broader decarbonization landscape, establish electrification targets, and provide strategic recommendations to guide action over the next 3-5 years.

BE strategy in the Integrated Decarbonization Roadmap is informed by the SVCE Market Segmentation Study, performed in 2022. The goal of the study was to better understand the number of natural gas-fueled residential and commercial appliances throughout Santa Clara County, and to estimate the cost of electrifying them. The study leveraged survey data, particularly the ACS and Residential Appliance Saturation Survey (RASS), to estimate the number of residential natural gas devices in the SVCE Service

Territory. Nonresidential equipment data was informed by additional data sources including Co-Star, NEEA surveys, and IOU surveys across California. A summary of residential and nonresidential fossil-fuel machines estimated across Santa Clara County can be seen in Figure 15 below.

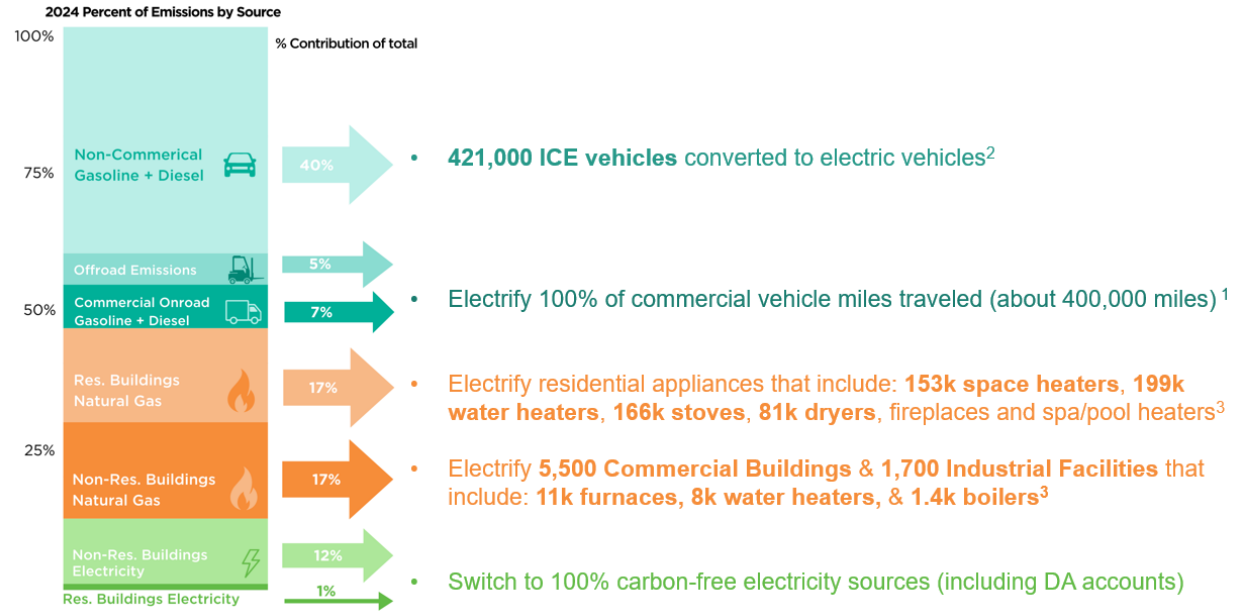

Figure 15. Summary of fossil-fuel consuming equipment across Santa Clara County based on the SVCE Market Segmentation Study.

Electrification adoption scenario pathways were evaluated for key equipment types, including residential heat pump HVAC, heat pump water heaters, induction cooking, and EVs. Best available market data was used along with local jurisdiction permit and incentive data to forecast natural market adoption as well as installations driven by state, regional, and local building codes and policies. The technology adoption scenario modeling was used to inform electrification targets for 2030 and 2035 toward the goal of 100% electrification in 2045. Adoption scenario models informed BE strategy by highlighting technology with lower natural market adoption in need of greater supplemental investment and programmatic support. An example of Heat Pump Water Heater (HPWH) adoption scenario modeling can be seen below in Figure 16.

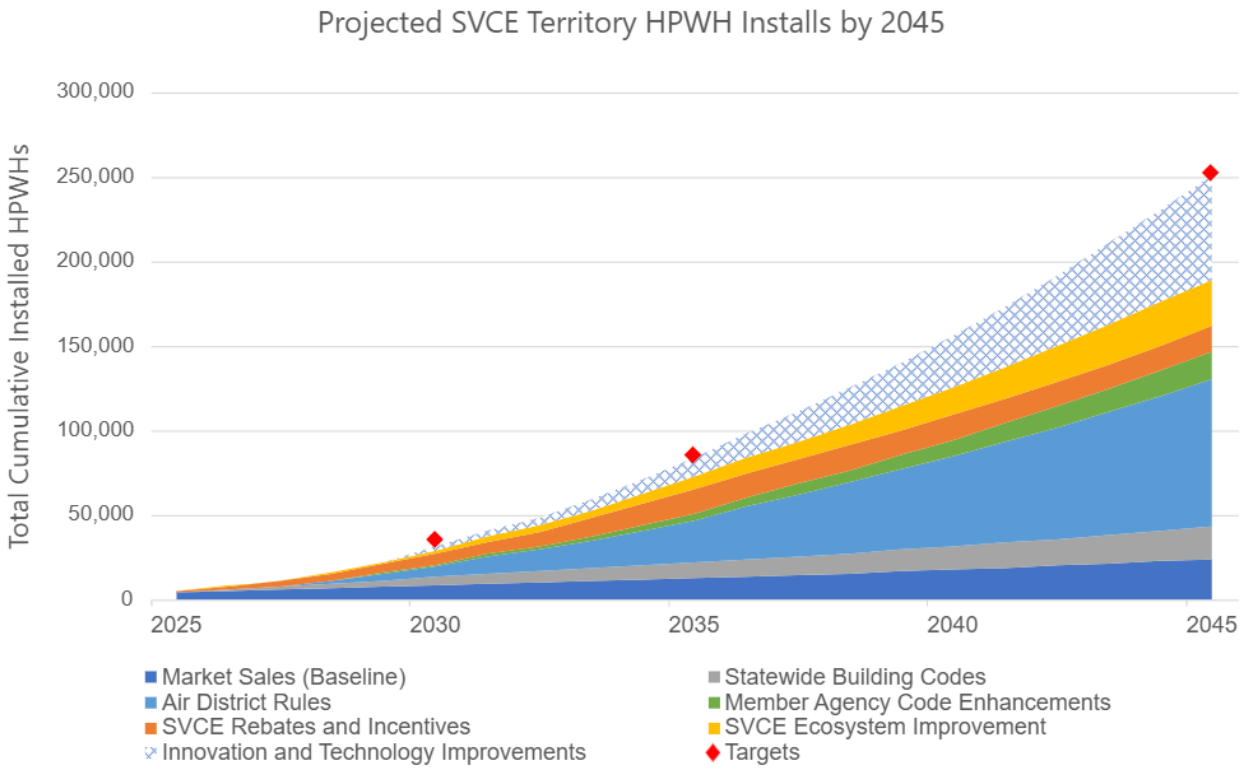

Figure 16. Example HPWH electrification adoption scenario model results

To maximize impact on decarbonization, SVCE pursues a joint programs and policy strategy for decarbonization. Policy efforts supporting member agencies include technical support for building officials and sustainability staff, support with reach code development and adoption, permitting streamlining, and general education and awareness.

In addition to supporting its member agencies' activities, SVCE has several specific programs targeted at BE. Launched in October 2022, SVCE's Home Rebates Program has supported residential customers by providing rebates for HPWHs, heat pump space heating and cooling systems (Heat Pumps), dryers, induction cooktops, and prewiring and electrical infrastructure upgrades. These incentives support the growth of the local all-electric market and contractor network, in addition to the equipment directly incentivized by SVCE. To date, the program has been very successful, having served more than 3,500 customers, and incentivized more than 1,200 HPWHs and 2,600 Heat Pumps. The strong uptake of this program highlights a growing demand for rebates as more customers become aware of electrification and choose to make the transition in their homes. SVCE aims to continue this program to support the local market for electric technologies ahead of the Bay Area Air District's Rules 9-4 and 9-6, which will

begin phasing out NOx-emitting appliances starting with a prohibition on the sale of gas water heaters in 2027.[35]

SVCE also developed a FutureFit Fundamentals Contractor Training program for workforce development, which aims at impacting deployment of a variety of BE technologies across resource categories. Eligible contractors can receive $500 for completing a five-hour online training course covering a variety of electric technologies. Once contractors complete the training course, they can earn up to $5,000 per year by installing qualifying all-electric heat pump equipment for customers participating in SVCE's Home Rebates program (up to 10 installs per year). Eligible contractors may also receive up to $5,000 to install a qualifying electric technology in their home or business. Through this program, SVCE hopes to increase the size of the local contractor pool, help educate customers, and expand awareness of the benefits of all-electric heat pump equipment. The online training and stipend are available to contractors throughout Santa Clara County and is offered in both English and Spanish language.

Additionally, to help reduce the upfront costs associated with BE retrofits and allow more customers to be able to participate in the benefits of decarbonization, SVCE has deployed a financing program to augment its customer offering. In spring 2025, SVCE launched its Zero Interest Financing program,[36] offering 0% interest loans to help cover the cost of heat pumps for water heating, space heating, and air conditioning with loan repayments being offset by energy savings from the new efficient equipment. The program targets customers with high bill savings-potential from electrification upgrades and provides direct install services paired with financing and incentive layering to lower out-of-pocket costs for home upgrades. The innovative finance offering, implemented with support from the TECH initiative,[37] is a learning opportunity to inform future Tariffed On-Bill Financing programs, including SCE's tariffed on-bill pilot recently approved by the CPUC in December 2025 as part of the Clean Energy Financing proceeding.[38] SVCE's timeline to deploy its own CPUC-approved tariffed on-bill program is uncertain because it depends on the progress of the SCE pilot and PG&E's billing system modernization effort. Meanwhile, SVCE and TECH are sharing the finance program learnings with stakeholders and will publish reports evaluating the attractiveness of the offer, marketing strategies, customer bill impacts, the potential to scale the finance model, and possible adjustments and modifications to the original design to enable even greater scaling.

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35 *Rules 9-4 and 9-6 Building Appliances*. (2023). Baaqmd.Gov. https://www.baaqmd.gov/rules-and-compliance/rule-development/building-appliances.

36 *Hassle-Free Home Upgrades with Zero Interest Financing*. (2025, April 16). Silicon Valley Clean Energy. https://svcleanenergy.org/financing/.

37 *TECH Inclusive utility investment pilot*. (2022). Techcleanca.Com. https://techcleanca.com/pilots/tariffed-on-bill-pilot/.

38 *Clean Energy Financing*. (2023). Ca.Gov. https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/clean-energy-financing.

Ultimately, in determining BE strategic focus areas, it is paramount to be realistic about SVCE's level of impact and influence. Areas where SVCE has limited impact and influence include timely energization. Part of SVCE's efforts to support BE involve advocating for changes to the energization process. SVCE has found that many of its customers are frustrated by the long waiting times to receive service and the confusing process for applying to become energized. Although the CPUC adopted minimum energization timelines in the Fall of 2024, the timelines do not go far enough to ensure meaningful improvements in wait times so that customers are not discouraged from seeking to electrify their buildings. SVCE will continue to advocate for improvements to these timelines as well as consequences for noncompliance at the CPUC.

While electrification of the building sector is a core part of SVCE's mission and the organization endeavors to support the full decarbonization of the local economy, SVCE's outlook for BE does differ from its assigned IEPR forecast used for this IRP cycle. SVCE's staff conduct a detailed review of market trends and the impact of policy in the service territory as part of its annual forecasting process. Based on this, SVCE forecasts lower BE growth than the assigned IRP forecast. SVCE assumes an 18% annual growth rate for BE over next 10 years while the 2024 IEPR assumes 73% statewide. Notably, the growth rate is a more modest 47% in the 2025 IEPR. Like the transportation electrification forecast, this difference appears to be largely driven by the share of early adopters in the SVCE service territory making the near-term growth rates in the IEPR forecast unviable for Santa Clara County.

x. Potential Centralized Procurement, pursuant to AB-1373

To assess the impact of potential centralized procurement activities taken by the DWR, SVCE input the expected energy from the CPUC provided allocation assumptions into the RDT and CSP associated with its Preferred Conforming Portfolio. Staff then removed capacity associated with the ARS model output until emissions results once again aligned with the Preferred Conforming Portfolio. The results portfolio build out is shown below.

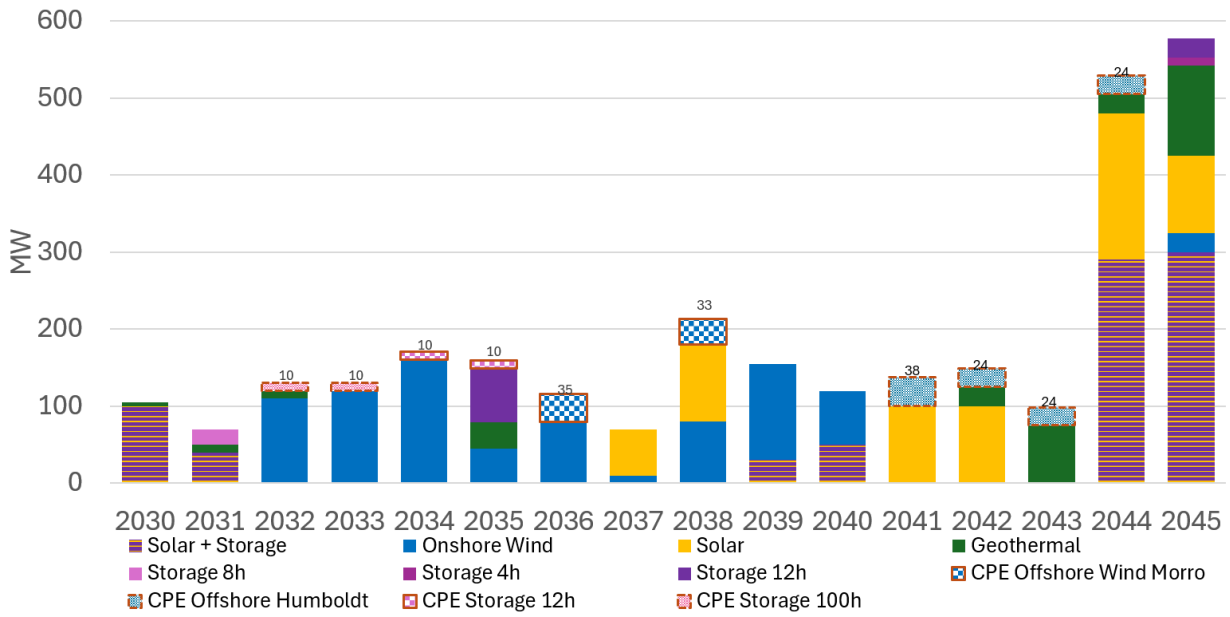

Figure 17. Results of SVCE Preferred Conforming Portfolio with CPE Resources

SVCE found that its self-procured portfolio would be reduced by 200 MW of solar, 23 MW of onshore wind, 29 MW of geothermal and 10 MW of storage. In total, the change in capacity given the additional resources would amount to 15 fewer MWs in the portfolio by 2045.

SVCE also notes DWR procurement can have adverse impacts on the market and LSEs. First, establishing the DWR procurement function without providing clarity on what actions the agency will take has created meaningful and detrimental uncertainties for LSE procurement teams. As with procurement orders in general, the potential of having resources forced into an LSE's portfolio strongly disincentivizes proactive procurement by LSEs due to heightened stranded asset risk. It is necessary to ensure that LSEs have sufficient forewarning of CPE allocations to avoid over-procurement in their portfolios which can result in stranded assets and higher customer costs. Additionally, centralized procurement may distort the market if developers withhold capacity in the hopes of selling to a central government agency facing procurement obligations. Finally, the CPUC has yet to clarify how development risk associated with CPE procurement will be managed, specifically whether LSEs will be expected to backstop CPE failure to maintain compliant portfolios. The CPUC allocations of CPE resources for this exercise start entering LSE portfolios as early as 2032. Given LSEs are already actively procuring for the 2030s and the potential for CPE allocations to impact optimal procurement for the entire planning horizon, SVCE encourages the CPUC to consider such impacts when considering approval of DWR procurement.

xi. Other

In addition to its conforming portfolios, SVCE staff also ran a study to assess procurement needs using an internal load forecast. Relative to the IEPR, this forecast utilizes a more modest outlook for data center developments in SVCE's service territory. The load modifier forecast also differs from the 2024 IEPR in meaningful ways, as described in sections IV.a.viii and IV.a.ix above. SVCE's internal load forecast is based on SVCE's detailed understanding of local customer growth, historical trends, and achievable electrification of buildings and vehicles adoption rate. It also incorporates a more realistic BTM PV forecast that reflects current federal and local policies, incentive structures, cost projections and payback periods. In contrast, the IEPR applies more aggressive assumptions for baseline growth, electrification and PV adoption that may be appropriate for statewide planning but may overestimate future load growth within SVCE's service territory. In addition, SVCE includes only data center loads which it views as likely to seek service from SVCE. The forecast times the online dates and ramping of such projects consistent with information from customers and local governments. While SVCE acknowledges there remains a high degree of uncertainty in data center demand growth and may ultimately have a conservative outlook in its current forecast, given the high level of uncertainty associated with these loads, SVCE strongly cautions the CPUC from ordering procurement based on speculative data center applications. As shown in Figure 18 below, while the forecast is notably lower than the assigned IRP forecast, it is still meaningfully higher than the forecast the CPUC assigned for IRP modeling in 2022.

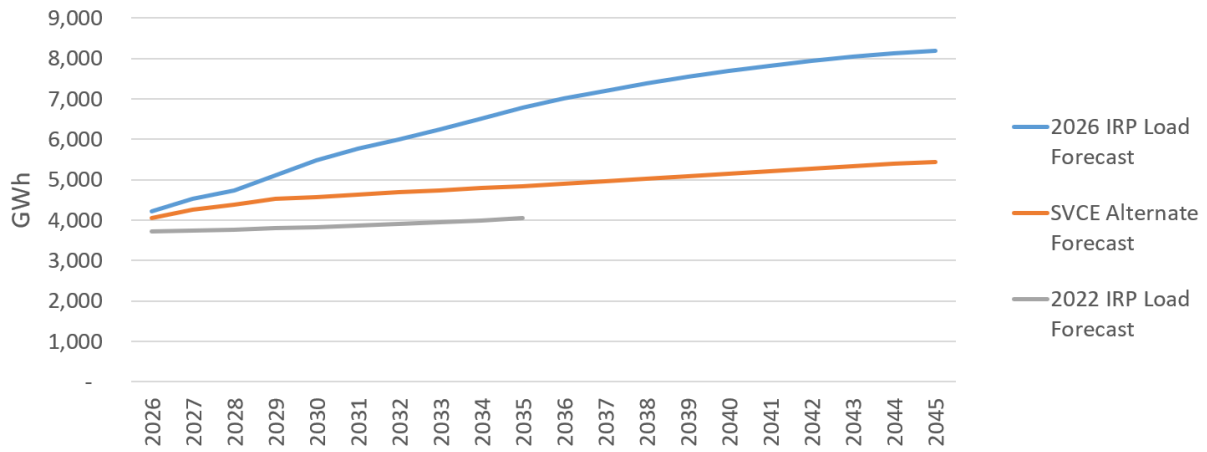

Figure 18. Load Forecast Comparison

The results of this study show a markedly different resource build-out as shown in Figure 19 below, reducing the total build need by more than 50% on a nameplate capacity basis[39]. Notably, under this

[39] Results from this study were not validated through the CSP tool due to lack of a corresponding emissions target. Additional capacity for post-processing alignment with emissions may have been necessary if emissions targets

lower build-out, the model also selects significantly less geothermal to meet its targets. This high degree of load forecast uncertainty, much of which is dependent on emerging and highly ambiguous data center load, suggests more frequent review of LSE plans and potentially more scenario analyses are warranted as part of the CPUC's ongoing IRP process.

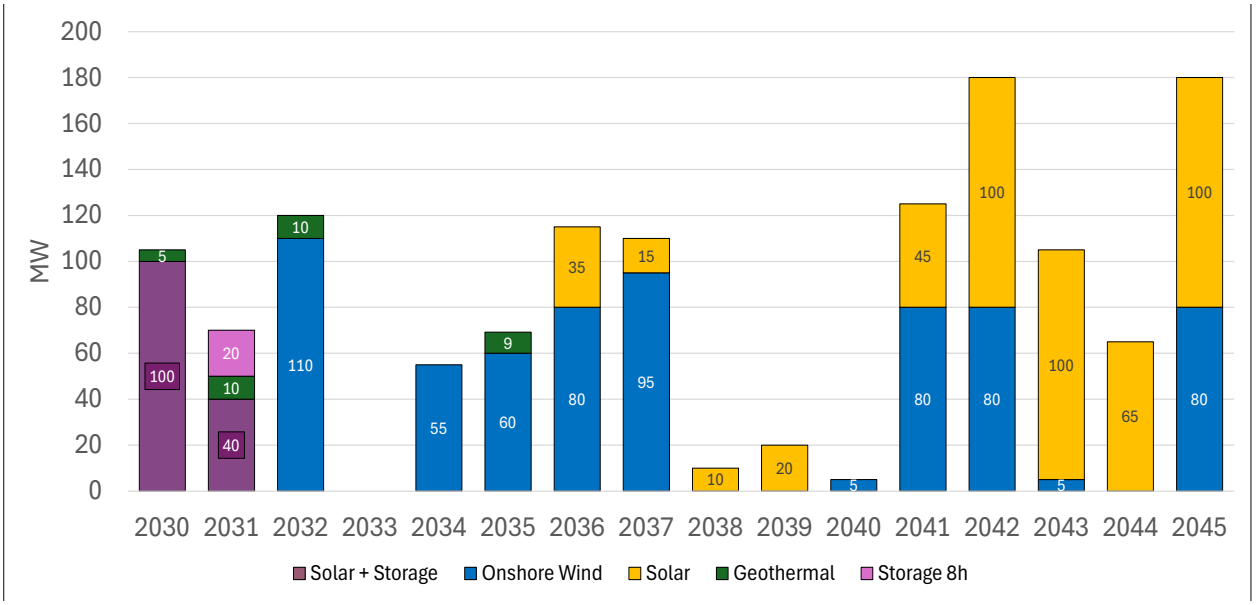

Figure 19. Results of SVCE Alternate Load Forecast scenario

b. Disadvantaged Communities (DACs)

As a community-based LSE, the SVCE Board of Directors is made up of thirteen elected officials representing each of the thirteen member jurisdictions that comprise the SVCE service territory. Decisions on procurement, programs and investments are made by these elected officials in the interest of all their constituents, including specific underserved communities that they and their municipal staff are closest to.

SVCE provides specific, customized support to address underserved communities. These include lower rates for income-qualified customers, the development and implementation of a Programs Equity Framework and use of Socioeconomic Vulnerability Index (SEVI) metrics to guide program planning and design, as well as ongoing community engagement and outreach efforts. Income-qualified CARE/FERA customers comprise approximately 10% of the SVCE residential customer base. Over the past six years, SVCE has offered an additional generation rate discount on top of the monthly on-bill discount provided to CARE/FERA customers. SVCE has distributed $19M through this initiative to date.

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had been known. Results were also not validated through the RDT given timing constraints. With such validations the model may have selected more battery storage to compliment the selected solar.

At the direction of the SVCE Board, the SVCE decarbonization programs and community outreach are customer-focused and designed to be inclusive of the needs of underserved communities. SVCE utilizes an internally developed Programs Equity Framework to guide investment in underserved communities. SVCE defines an underserved community as one that is underrepresented in decision-making and whose access to key information and resources is limited when it comes to energy issues and receiving the benefits of decarbonization. Underserved communities can face barriers associated with lower socioeconomic status (affordable housing tenants, CARE/FERA customers), type and ownership of housing (renters, tenants of older multifamily properties), geographic isolation, language barriers or cultural isolation, or limited access to digital platforms.

The primary indicator used by SVCE to identify underserved communities and develop program approaches is the SEVI, originally developed as part of the CPUC's Affordability Report. SVCE has taken the statewide SEVI data by census tract and grouped the tracts that are in SVCE territory into four quartiles, as shown in Figure 20 below. SVCE selected SEVI over California Enviroscreen designated DACs because 1) there are only 7 official DACs in the territory, many of them partially in the territory, and using this designation would leave the majority of underserved communities in the territory out and 2) the key vulnerability in the territory is economic vulnerability (i.e. affordability) due to high economic inequality. Importantly, SEVI identifies relative socioeconomic vulnerability across SVCE's entire service territory. DACs within SVCE's service territory, as defined by CalEPA, are exclusively in the SEVI 4 quartile.

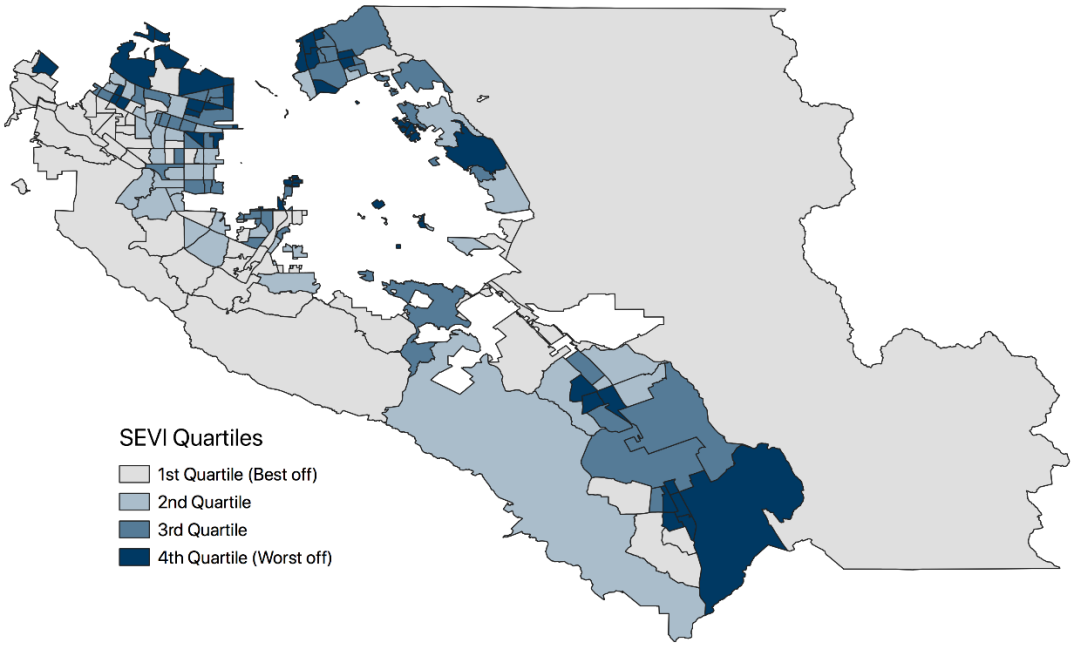

Figure 20. Map of SVCE census tracts by SEVI quartile

SVCE has performed analysis to understand the different demographics in these SEVI quartiles using utility and tax assessor data. See Table 17 below for a high-level overview of some example statistics by SEVI quartile that SVCE uses to inform program design.

Table 17. SEVI quartiles and key demographic information

	SEV 1	SEVI 2	SEVI 3	SEVI 4
Residential Accounts	60,000 (26%)	61,000 (26%)	59,000 (25%)	53,000 (23%)
Population	200,000 (22%)	235,000 (26%)	215,000 (24%)	243,000 (27%)
CARE/FERA Accounts	2,600 (4%)	4,200 (7%)	6,300 (11%)	11,000 (21%)
Median Income	$219,000	$192,000	$162,000	$120,000

The goal of using SEVI as a primary indicator is to provide a first pass at identifying varying community and customer demographics, associated decarbonization needs, and to support and track how those needs are being met. SEVI quartiles help SVCE staff think about program design and outreach. As an example, Figure 21 shows how housing composition varies among SVCE customers in SEVI 1 (best-off) and SEVI 4 (worst-off) quartiles. Considering that the population in SEVI 4 tends to have lower electrification rates overall is important, but understanding the differences in housing composition is critical to determining how best to formulate a program for these underserved communities.

This analysis, in part, led to SVCE's decision to offer both a BE incentive program (simpler for single-family homeowners) and a direct installation program (designed for multifamily). SVCE is still considering how best to reach single-family renters, another underserved subgroup.

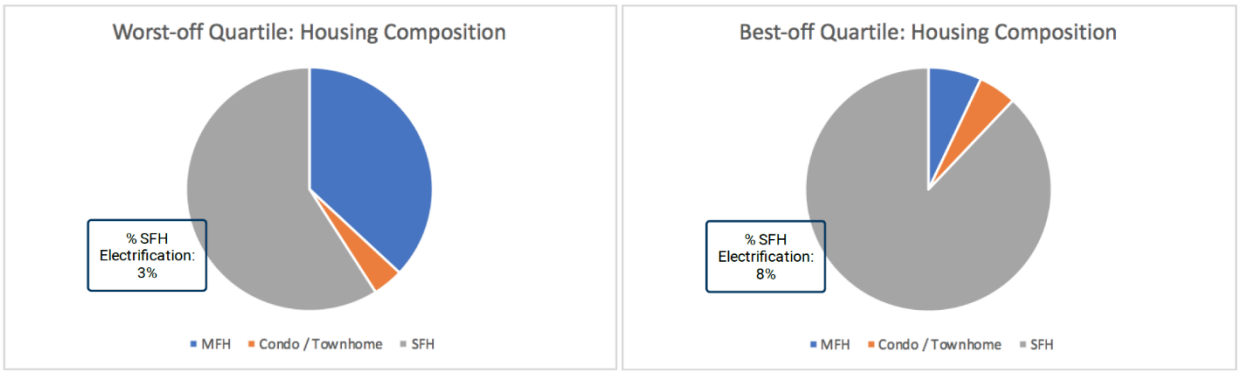

Figure 21. Housing comparison of SEVI 4 (worst-off) and SEVI 1 (best-off) quartiles

SVCE has developed a framework that guides its programmatic, marketing, and communications approach to reaching the full set of diverse customers in this region. Core to the SVCE mission is helping all customers benefit, directly and indirectly, from decarbonization – that is, in order to achieve its goals,

SVCE must ensure that all customers have a pathway to participate in this movement and are actively doing so. While each initiative has its own specific constraints that guide what tactics can be used, this internal framework provides a consistent set of approaches to consider and best practices.

The guiding principles for SVCE efforts to reach all different types of customers are to build community trust through meaningful engagement, leverage strategic partnerships with stakeholders, make data-based equity decisions, and design tailored, adaptable programs and associated marketing materials.

There are many examples of SVCE programs launched specifically to support underserved customers through their design, including:

- SVCE provided grant funding to launch two innovative pilots to provide reliable and affordable charging access to multifamily residents. The pilot with EVmatch tested their reservation-based software platform for shared charging for multi-unit dwelling tenants[40]. The pilot with Ecology Action demonstrated lower power charging technology and a business model designed for affordable housing communities[41]. SVCE further supported successful applications for CEC grant funds by both companies to greatly expand their efforts locally.
- The SVCE EV Rebate Program provides a $2,000 incentive towards the purchase or lease of a new or pre-owned EV for income-qualified customers. The high upfront purchase cost of EVs is one of the most significant barriers to equitable EV adoption, especially for lower income communities. In order to reach as many customers as possible, the SVCE rebate is available both as an instant rebate at the point-of-sale at participating local dealerships, or as a post-purchase rebate. SVCE partners with local CBOs to host in-person and virtual EV education events, including EV Expos, EV Ride and Drives, and financial incentive workshops.
- The SVCE Multifamily Retrofits program provides deed-restricted affordable multifamily properties with no-cost upgrades for BE and EV charging infrastructure. Low rental revenues and high upfront costs of electrification are significant barriers to electrifying affordable housing. During program design, SVCE met with affordable housing property owners to gather feedback on program implementation. This allowed SVCE to refine program processes and offerings to ensure these owners' unique needs were met. Once property owners enroll in the program, SVCE also supports owners in engaging tenants on the planned upgrades. SVCE, in coordination with a local CBO, hosts tenant engagement meetings to educate residents on the planned upgrades and construction process. Once the upgrades are made, SVCE hosts a subsequent

[40] *SVCE Innovation Onramp Summary: EVMatch*. (2022). Silicon Valley Clean Energy. https://svcleanenergy.org/wp-content/uploads/SVCE-Innovation-Onramp-Summary_EVMatch.pdf.

[41] *SVCE Innovation Onramp Final Report: Ecology Action*. (2021). Silicon Valley Clean Energy. https://svcleanenergy.org/wp-content/uploads/IN-Ecology-Action-Innovation-Onramp-Final-Report_11.5.21_digital.pdf.

post-installation meeting with tenants to provide education on equipment operations and maintenance, and bill savings. All meetings provide live interpretation in Spanish and Vietnamese to support non-English speaking residents at these properties.

- The Full-Service Home Upgrades program provides no-cost upgrades to income-qualified (<80% area median income) households. This direct install program helps customers understand their energy opportunities through a non-biased Energy Advisor and connects them to a vetted contractor to perform electrification, energy-efficiency, and remediation (e.g., asbestos, unsafe panels etc.) upgrades. As a result, income-qualified homeowners are able to live in healthier, safer homes. It is fundamental that SVCE partners with local community-based organizations representing underserved communities to help promote available resources to their community. These organizations also provide SVCE with direct customer feedback and useful input on program design. As one example, SVCE partnered with the Silicon Valley Independent Living Center to distribute 50 portable batteries to Medical Baseline customers who live in fire-prone areas and depend on having electricity to power equipment for medical needs.

On an ongoing basis, SVCE conducts outreach and engagement with its 280,000+ customers, through both direct and electronic channels. Quarterly, SVCE hosts a meeting with community partners to gain feedback on SVCE's energy services, program results and upcoming plans. Community partners include local advocacy groups, residents serving on local governmental commissions, and community non-profit organizations. As a public entity, SVCE Board and Committee meetings are publicly noticed and open to the public for input and comment. The SVCE website, public notifications and outreach materials are provided in the top four languages spoken in its service area – English, Spanish, Chinese and Vietnamese, as well as being compliant with accessibility standards.

In 2025, SVCE implemented two key campaigns to reach vulnerable communities. The first, The Payment Assistance and Efficiency Resources campaign, was developed to help customers in need learn about payment programs and ways to save on their bills. The campaign was targeted in vulnerable communities within the SVCE service area and directly to customers with bill payment arrearages. The campaign also collected direct feedback from target customers through a survey that offered direct insights into where customers go for information and resources. This provided SVCE with recommendations for future community partnership opportunities. For the second program, SVCE partnered with a Spanish-language marketing agency to develop a campaign to promote its customer electrification offers and services in a Spanish-first approach. The campaign resulted in significant customer engagement on its Spanish landing pages about available rebates for heat pump equipment.

Outside of its service territory, SVCE also engages with underserved communities its power procurement activities may impact. As discussed in Section III.d.ii above, in 2023 SVCE signed a contract with the Hanford Hybrid Power Plant. The Hanford plant is a hybrid natural gas peaker power plant ("peaker") and battery energy storage system that SVCE contracted with for twelve years to ensure that SVCE can meet its RA program obligations as mandated by California and to assist with meeting SVCE's procurement obligations under the CPUC Mid-term Reliability procurement order. The SVCE contract with the facility enabled the addition of adding a battery energy storage system to reduce the run time

of the gas plant as the battery will be called on first to offer the reliability benefits and reduce overall emissions from the facility.

However, due to the expectation that even with the batteries, there will still be some emissions from the facility due to the gas peaker dispatching, the Board directed staff to develop a policy and/or guidelines to set aside funds for programs and/or projects to mitigate emissions associated with energy produced by the plant. Hanford is located in Kings County, located within the San Joaquin Valley. Hanford has been designated a disadvantaged community as defined by the 2022 version of CalEPA's CalEnviroScreen 4.0.

In developing the Hanford Emission Mitigation Fund, SVCE conducted extensive community outreach to ensure funds provided maximum benefit to the community while also being consistent with SVCE's mission. To identify appropriate projects to fund, staff sought community input from local organizations that serve Kings County. Staff researched and contacted approximately a dozen different organizations and met with four that have programs aligned with the goals and guidelines in the Hanford Mitigation Fund. In these conversations, the nonprofit organizations referenced past and recent community needs assessments and their reports indicated that one of the primary residential concerns is energy affordability and utilities assistance. Specifically, affordable housing, food insecurity, home repairs and employment were also top community priorities.

The two organizations that the SVCE Board approved funds for from the Hanford Mitigation Fund include Self-Help Enterprises (SHE) and Kings County Action Organization (KCAO).

Serving nine counties in the San Joaquin Valley, SHE is a community development organization whose mission is to work together with low-income families to build and sustain healthy homes and communities. One of their program areas, Sustainable Energy Solutions, includes projects on affordable energy, EV adoption, and community engagement and education on energy topics. Approximately $1.2 million has been allocated to SHE to fund electrification outreach and readiness initiatives across three program areas, focused on energy efficiency and electrification, over five years.

KCAO is a local community services organization and federally designated anti-poverty agency providing services to Kings County. KCAO, like other service organizations throughout California, offers emergency utility bill assistance and weatherization services. $300k has been allocated to KCAO for their home weatherization program. The current program is primarily funded by federal grants from the Department of Energy and the Low-Income Home Energy Assistance Program (LIHEAP). Under their current funding amount, they can serve approximately 80 homes with an average cost of approximately $5,600 per home. SVCE funds can assist with reaching up to 100 homes each year, over a two-year period.

c. LSEs' Tribal Customers

SVCE has no federally recognized tribes as customers. SVCE recognizes that its service area is part of the unceded lands of the Muwekma Ohlone Tribe. Based on census data, SVCE estimates that approximately 6,400 people identify as American Indian or Alaskan Native within its service territory.

Through its *Power Purchase Agreement Project Selection Policy,* SVCE remains committed to prioritizing environmental stewardship, workforce development and community engagement for all long-term contracts the organization pursues including any future contracts on or near tribal lands.

d. Procurement Products

SVCE is governed by its Board of Directors, which has approved acceptable product and transaction types through its ERMP. Table 18 below demonstrates the scope of approved product types, enabling contracts, markets and approved transaction types.

Table 18. SVCE Board of Directors approved product types

Product Type (Approved)	Contract	Other Product Name	Market	Transaction Type
Energy	EEI, PPA	ISTs	OTC, CAISO	Fixed, Index, Physical Swap*** (Exchange of Quantities)
Resource Adequacy	WSPP, EEI, PPA	RA, Generic, Flex, IAR	OTC	Fixed, Physical Swap*** (Fixed Price)
Reliability	PPA	MTR	OTC	Fixed
Attributes	WSPP, EEI, PPA	RPS, PCC1, CF, GHG Free	OTC	Fixed
Ancillaries	CAISO, PPA	(Regulation, Spinning, etc.)	CAISO	Settlement Statement
Basis	CAISO	CRRs	CAISO	Allocation, Auction
Tolling*	PPA	Natural Gas Tolling*	OTC	Fixed, Index
Natural Gas Hedges**	EEI, Exchange	Physical & Financial NG	OTC, ICE	Fixed, Futures

*Tolling agreements and natural gas tolling agreements specifically approved by the Board
**Natural gas hedges needed to manage risk associated with Board-Approved natural gas tolling agreements. This includes use of both physical and financially settled natural gas hedges and bilateral purchase of energy products.
*** Does not include Financial Swaps (Derivatives)

SVCE expects that it will utilize the above-mentioned product types on a forward-going basis, consistent with the Board approved ERMP to best manage its cost and risks for its customers.

For the purpose of modeling in this IRP cycle, SVCE assumed that all new long-term resources would be procured through bundled PPAs, for which the agency receives Energy, RA and PCC1 attributes from the

contract. For the short-term clean products, SVCE assumed procurement via index plus contracts. Additionally, SVCE assumed some level of short-term RA only product purchases each year to meet its reliability needs.

e. Commission Direction of Actions

While SVCE has attempted to put forward reasonable and actionable portfolios as part of this IRP, there is significant uncertainty in regulatory and market conditions which were considered in selecting a preferred conforming portfolio. Part of SVCE's qualitative evaluation of the conforming portfolios included assessing regulatory risk. Generally, such risks provide incentive for an LSE to maintain optionality on a forward-looking basis to adapt to changing conditions.

SVCE appreciates the Commission's progress to date in developing a RCPPP, especially the 2025 Energy Division Staff Proposal and stakeholder review period which followed its release. However, it must be noted that progress in developing the RCPPP has been slow, and LSEs have been waiting for the regulatory certainty it would provide for over four years. As long as the Commission continues to rely on procurement orders and potential DWR procurement to ensure the state remains on track to meet its clean goals and reliability targets the IRP planning process will be compromised. Put bluntly, each procurement order effectively renders LSE IRP plans irrelevant. Perhaps more importantly, these orders also negatively impact LSEs abilities to develop least cost portfolios for their customers, further impeding affordability for California ratepayers.

Simultaneously, as noted above, changing regulatory and market conditions necessitate that LSEs have an ability to adjust their procurement activities and portfolio management to serve their customers at least cost. For this reason, SVCE strongly cautions the CPUC against adoption of the Additional Proposal for a Reliable and Clean Power Procurement Program, issued on June 23, 2026.[42] This proposal would not only bind LSEs to their plans long-term, potentially at significant cost and risk to its customers, but may also still necessitate short-term procurement orders to manage large swings in the IEPR forecast or other IRP assumptions that prove to be inaccurate, as we have seen in recent years.

SVCE continues to support an RCPPP which follows the structure SVCE laid out in its July 15, 2025 RCPPP Proposal[43]. This proposal best ensures an affordable system which considers the entire resource fleet (new and existing), is consistent with other compliance requirements including those laid out in the RPS

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[42] *ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENTS ON ADDITIONAL PROPOSAL FOR A RELIABLE AND CLEAN POWER PROCUREMENT PROGRAM*. (2026). California Public Utilities Commission. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M609/K223/609223925.PDF.

[43] Silicon Valley Clean Energy. "Opening Comments of Silicon Valley Clean Energy on Administrative Law Judge's Ruling Seeking Comment On Reliable And Clean Power Procurement Staff Proposal". July 15, 2025. R.20-05-003.

and RA proceedings and acknowledges key uncertainties including those related to load growth and future grid dispatch.

V. Lessons Learned

SVCE applauds the Commission for the continued evolution of the Integrated Resource Planning process, which has had meaningful improvements over the past three cycles. SVCE acknowledges the challenges associated with aggregating dozens of LSE plans into a viable planning portfolio that can be used by the CPUC and CAISO for important forward looking planning activities. In particular, SVCE appreciates that relative to the 2022 cycle, LSEs were provided more time to develop their plans. With that said, six months is still a limited window to develop a 20-year outlook for an organization. SVCE's planning team intends to maintain focus on integrated resource planning and scenario analyses to better inform its next compliance plan. To the extent the CPUC can signal to LSEs likely scenarios and load forecasts prior to official release of the next IRP Inputs and Assumptions, it may help organizations such as SVCE develop improved and more actionable plans.

As noted throughout this document, numerous regulatory and forecasting uncertainties continue to impact the viability of LSE's plans. A key issue this cycle is the assigned load forecast. Relative to the 2022 IRP cycle, SVCE's 2035 forecast increased 68%. This significant change has prompted SVCE to develop a 2026 Preferred Conforming Portfolio that, as discussed throughout Section III above, bears little resemblance to its 2022 plan. In future cycles, SVCE encourages the CPUC to consider requiring LSEs to evaluate multiple scenarios around key assumptions which are of particular concern due to their high impact and relative uncertainty. However, the CPUC must account for this additional work when considering how much time to provide LSEs to develop their plans. Additionally, this degree of uncertainty and variance each cycle highlights the challenges, and even plausibility, of enforcing these plans as suggested in the Additional Proposal for a Reliable and Clean Power Procurement Program, as discussed further in section IV.e above.

Going forward, SVCE expects regulatory and forecasting uncertainty to persist. Notably, at the time of this writing it is unclear if the Diablo Canyon Nuclear Power Plant will be further extended. If the plant's retirement is delayed again, SVCE strongly supports allowing its inclusion in state planning processes such as the IRP. Failure to do so results in inaccurate portfolio forecasts and significant over-procurement in the system impacting customer affordability. SVCE also believes it is important that the attributes from the facility – including the procurement value – flow to the entities which cover the ongoing costs of the plant's operations.

Finally, SVCE also suggests that the CPUC develops a set of workshops in 2027, or once the PSP is complete, to allow a thorough and holistic review of the IRP compliance materials. SVCE would like to explore opportunities for simplification of the RDTs for the purposes of individual LSE IRP plans and also believes review of the CSP tool logic by stakeholders may be warranted again. For example, the CSP resource profiles for renewables (i.e. wind and solar) are based on 2009 historical weather data, which may not represent the most up-to-date capacity factors. SVCE encourages CPUC to continue improving

the renewable resource profiles in coordination with CEC and CAISO. While the current approach provides a useful standardized baseline, reliance on a single historical weather year may not fully reflect future renewable generation. Since CEC's IEPR demand incorporates climate impacts, it would make sense for the generation profiles to align. Additionally, convening parties to discuss long-term planning challenges not addressed by the tools, such as how to plan for reliability should a dual winter and summer peaking system occur in the future, may also be warranted.

Glossary of Terms

Alternative Portfolio: LSEs are permitted to submit "Alternative Portfolios" developed from scenarios using different assumptions from those used in the Preferred System Plan with updates. Any deviations from the "Conforming Portfolio" must be explained and justified.

Approve (Plan): the CPUC's obligation to approve an LSE's integrated resource plan derives from Public Utilities Code Section 454.52(b)(2) and the procurement planning process described in Public Utilities Code Section 454.5, in addition to the CPUC obligation to ensure safe and reliable service at just and reasonable rates under Public Utilities Code Section 451.

Balancing Authority Area (CAISO): the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Baseline resources: Those resources assumed to be fixed as a capacity expansion model input, as opposed to Candidate resources, which are selected by the model and are incremental to the Baseline. Baseline resources are existing (already online) or owned or contracted to come online within the planning horizon. Existing resources with announced retirements are excluded from the Baseline for the applicable years. Being "contracted" refers to a resource holding signed contract/s with an LSE/s for much of its energy and capacity, as applicable, for a significant portion of its useful life. The contracts refer to those approved by the CPUC and/or the LSE's governing board, as applicable. These criteria indicate the resource is relatively certain to come online. Baseline resources that are not online at the time of modeling may have a failure rate applied to their nameplate capacity to allow for the risk of them failing to come online.

Candidate resource: those resources, such as renewables, energy storage, natural gas generation, and demand response, available for selection in IRP capacity expansion modeling, incremental to the Baseline resources.

Capacity Expansion Model: a capacity expansion model is a computer model that simulates generation and transmission investment to meet forecasted electric load over many years, usually with the objective of minimizing the total cost of owning and operating the electrical system. Capacity expansion models can also be configured to only allow solutions that meet specific requirements, such as providing a minimum amount of capacity to ensure the reliability of the system or maintaining greenhouse gas emissions below an established level.

Certify (a Community Choice Aggregator Plan): Public Utilities Code 454.52(b)(3) requires the CPUC to certify the integrated resource plans of CCAs. "Certify" requires a formal act of the Commission to determine that the CCA's Plan complies with the requirements of the statute and the process established via Public Utilities Code 454.51(a). In addition, the Commission must review the CCA Plans to determine any potential impacts on public utility bundled customers under Public Utilities Code Sections 451 and 454, among others.

Clean System Power (CSP) methodology: the methodology used to estimate GHG and criteria pollutant emissions associated with an LSE's Portfolio based on how the LSE will expect to rely on system power on an hourly basis.

Community Choice Aggregator: a governmental entity formed by a city or county to procure electricity for its residents, businesses, and municipal facilities.

Conforming Portfolio: the LSE portfolio that conforms to IRP Planning Standards, the 2045 LSE-specific GHG Emissions Benchmark, use of the LSE's assigned load forecast, use of inputs and assumptions matching those used in developing the Reference System Portfolio, as well as other IRP requirements including the filing of a complete Narrative Template, a Resource Data Template and Clean System Power Calculator.

Effective Load Carrying Capacity (ELCC): a percentage that expresses how well a resource is able avoid loss-of-load events (considering availability and use limitations). The percentage is relative to a reference resource, for example a resource that is always available with no use limitations. It is calculated via probabilistic reliability modeling, and yields a single percentage value for a given resource or grouping of resources.

Effective Megawatts (MW): perfect capacity equivalent MW, such as the MW calculated by applying an ELCC % multiplier to nameplate MW.

Electric Service Provider: an entity that offers electric service to a retail or end-use customer, but which does not fall within the definition of an electrical corporation under Public Utilities Code Section 218.

Filing Entity: an entity required by statute to file an integrated resource plan with CPUC.

Future: a set of assumptions about future conditions, such as load or gas prices.

GHG Benchmark (or LSE-specific 2045 GHG Benchmark): the mass-based GHG emission planning targets calculated by staff for each LSE based on the methodology established by the California Air Resources Board and required for use in LSE Portfolio development in IRP.

GHG Planning Price: the systemwide marginal GHG abatement cost associated with achieving a specific electric sector GHG planning target.

Integrated Resources Planning Standards (Planning Standards): the set of CPUC IRP rules, guidelines, formulas and metrics that LSEs must include in their LSE Plans.

Integrated Resource Planning (IRP) process: integrated resource planning process; the repeating cycle through which integrated resource plans are prepared, submitted, and reviewed by the CPUC

Long term: more than 5 years unless otherwise specified.

Load Serving Entity: an electrical corporation, electric service provider, community choice aggregator, or electric cooperative.

Load Serving Entity (LSE) Plan: an LSE's integrated resource plan; the full set of documents and information submitted by an LSE to the CPUC as part of the IRP process.

Load Serving Entity (LSE) Portfolio: a set of supply- and/or demand-side resources with certain attributes that together serve the LSE's assigned load over the IRP planning horizon.

Loss of Load Expectation (LOLE): a metric that quantifies the expected frequency of loss-of-load events per year. Loss-of-load is any instance where available generating capacity is insufficient to serve electric demand. If one or more instances of loss-of-load occurring within the same day regardless of duration are counted as one loss-of-load event, then the LOLE metric can be compared to a reference point such as the industry probabilistic reliability standard of "one expected day in 10 years," i.e. an LOLE of 0.1.

Maximum Import Capability: a California ISO metric that represents a quantity in MWs of imports determined by the CAISO to be simultaneously deliverable to the aggregate of load in the ISO's Balancing Authority (BAA) Area and thus eligible for use in the Resource Adequacy process. The California ISO assess a MIC MW value for each intertie into the ISO's BAA and allocated yearly to the LSEs. A LSE's RA import showings are limited to its share of the MIC at each intertie.

Net Qualifying Capacity (NQC): Qualifying Capacity reduced, as applicable, based on: (1) testing and verification; (2) application of performance criteria; and (3) deliverability restrictions. The Net Qualifying Capacity determination shall be made by the California ISO pursuant to the provisions of this California ISO Tariff and the applicable Business Practice Manual.

Non-modeled costs: embedded fixed costs in today's energy system (e.g., existing distribution revenue requirement, existing transmission revenue requirement, and energy efficiency program cost).

Nonstandard LSE Plan: type of integrated resource plan that an LSE may be eligible to file if it serves load outside the CAISO balancing authority area.

Optimization: an exercise undertaken in the CPUC's Integrated Resource Planning (IRP) process using a capacity expansion model to identify a least-cost portfolio of electricity resources for meeting specific policy constraints, such as GHG reduction or RPS targets, while maintaining reliability given a set of assumptions about the future. Optimization in IRP considers resources assumed to be online over the planning horizon (baseline resources), some of which the model may choose not to retain, and additional resources (candidate resources) that the model is able to select to meet future grid needs.

Planned resource: any resource included in an LSE portfolio, whether already online or not, that is yet to be procured. Relating this to capacity expansion modeling terms, planned resources can be baseline resources (needing contract renewal, or currently owned/contracted by another LSE), candidate resources, or possibly resources that were not considered by the modeling, e.g., due to the passage of time between the modeling taking place and LSEs developing their plans. Planned resources can be specific (e.g., with a CAISO ID) or generic, with only the type, size and some geographic information identified.

Qualifying capacity: the maximum amount of Resource Adequacy Benefits a generating facility could provide before an assessment of its net qualifying capacity.

Preferred Conforming Portfolio: the conforming portfolio preferred by an LSE as the most suitable to its own needs; submitted to CPUC for review as one element of the LSE's overall IRP plan.

Preferred System Plan: the Commission's integrated resource plan composed of both the aggregation of LSE portfolios (i.e., Preferred System Portfolio) and the set of actions necessary to implement that portfolio (i.e., Preferred System Action Plan).

Preferred System Portfolio: the combined portfolios of individual LSEs within the CAISO, aggregated, reviewed and possibly modified by Commission staff as a proposal to the Commission, and adopted by the Commission as most responsive to statutory requirements per Pub. Util. Code 454.51; part of the Preferred System Plan.

Short term: 1 to 3 years (unless otherwise specified).

Staff: CPUC Energy Division staff (unless otherwise specified).

Standard LSE Plan: type of integrated resource plan that an LSE is required to file if it serves load within the CAISO balancing authority area (unless the LSE demonstrates exemption from the IRP process).

Transmission Planning Process (TPP): process conducted by the California Independent System Operator (CAISO) to identify potential transmission system limitations and areas that need reinforcements over 10-year and 15-year horizons.