

FILED
08/10/26
03:55 PM
R2506019

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Oversight of Electric Integrated Resource Planning and Procurement Processes.	Rulemaking 25-06-019 (Filed June 26, 2025)

CALPINE POWERAMERICA-CA, LLC (ESP #1362) 2026 INTEGRATED RESOURCE PLAN COMPLIANCE FILING

(PUBLIC VERSION)

Katie Jorrie
Chasity Hendren
Davis Wright Tremaine LLP
50 California Street, 23rd Floor
San Francisco, CA 9411
Tel. (415) 276-6554
Email: katiejorrie@dwt.com
Email: chasityhendren@dwt.com

Attorneys for Calpine PowerAmerica-CA, LLC

August 10, 2026

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Oversight of Electric Integrated Resource Planning and Procurement Processes.	Rulemaking 25-06-019 (Filed June 26, 2025)

CALPINE POWERAMERICA-CA, LLC (ESP #1362) 2026 INTEGRATED RESOURCE PLAN COMPLIANCE FILING

(PUBLIC VERSION)

Pursuant to the California Public Utilities Commission ("Commission") *Decision Setting Requirements for Load Serving Entities Filing Integrated Resources Plans,* Decision ("D.") 18-02-018, and the *Assigned Commissioner's Scoping Memo and Ruling,* filed on October 28, 2025, the *Administrative Law Judge's Ruling Setting Requirements for Individual Integrated Resource Plans*, filed on January 16, 2026, and the *Administrative Law Judge's Ruling Correcting Table in January 16, 2026 Filing Requirement Ruling and Confirming August 10, 2026 Integrated Resource Plan Due Date,* filed on March 20, 2026, Calpine PowerAmerica-CA, LLC ("CPA") hereby submits its 2026 Integrated Resource Plan, including a Resource Data Template and Clean System Power Calculator (Appendix A), and officer verification.[1]

Respectfully submitted,

/s/

Katie Jorrie
Chasity Hendren
Davis Wright Tremaine LLP
50 California Street, 23rd Floor
San Francisco, CA 9411
Tel. (415) 276-6554
Email: katiejorrie@dwt.com
Email: chasityhendren@dwt.com

August 10, 2026

Attorneys for Calpine PowerAmerica-CA, LLC

[1] A motion to file under seal the confidential portions of CPA's 2026 Integrated Resource Plan is being concurrently filed.

Standard LSE Plan

Calpine Power America-CA, LLC (ESP#1362)

2026 INTEGRATED RESOURCE PLAN

AUGUST 10, 2026

Table of Contents

I. Executive Summary 1
II. Study Design 3
a. Objectives 4
b. Methodology 4
i. Modeling Tool(s) 4
ii. Modeling Approach 5
iii. Alternative Assumptions 7
III. Study Results 7
a. Conforming and Alternative Portfolios 7
b. Preferred Conforming Portfolio 8
c. GHG Emissions Results 12
d. Local Air Pollutant Minimization and Disadvantaged Communities 13
i. Local Air Pollutants 13
ii. Focus on Disadvantaged Communities 14
e. Cost and Rate Analysis 16
f. System Reliability Analysis 16
h. Hydro Generation Risk Management 18
i. Long-Duration Storage Planning 18
j. Clean Firm Power Planning 18
k. Non-CAISO, including Out-of-State, Wind Planning 18
l. Offshore Wind Planning 18
m. Transmission Planning 19
IV. Action Plan 19
a. Proposed Procurement Activities and Potential Barriers 19
b. Disadvantaged Communities (DACs) 20
c. LSEs' Tribal Customers 20
d. Procurement Products 21
e. Commission Direction of Actions 21
V. Lessons Learned 21

I. Executive Summary

Calpine PowerAmerica-CA, LLC ("CPA") is an Electric Service Provider ("ESP") registered with the California Public Utilities Commission ("Commission") as ESP #1362.

CPA is a wholly owned subsidiary of Calpine, LLC ("Calpine").[1] Calpine is America's largest generator of electricity from natural gas and geothermal resources. Calpine's clean, efficient, modern and flexible generation fleet uses advanced technologies to generate electricity in a low-carbon and environmentally responsible manner. Calpine is the largest renewable power provider in California.

Calpine is a wholly owned subsidiary of Constellation Energy Corporation ("Constellation"). Constellation is the largest private-sector power producer, the largest producer of clean energy and the leading operator of nuclear power plants in the U.S., generating more 24/7, emissions-free electricity than any other company in the nation. With 55 GWs of capacity from nuclear, natural gas, geothermal, hydro, wind and solar facilities, providing about 10% of the nation's clean energy and delivering the around-the-clock reliability needed to power America's growing economy.

CPA currently serves two customers – a large university and a large grocery store chain – as part of California's Direct Access ("DA") program. CPA's customers are committed to aggressive clean energy procurement goals, and with CPA's assistance, its customers have entered into long-term renewable contracts that CPA will use for purposes of Renewables Portfolio Standard ("RPS") and Resource Adequacy ("RA") compliance. CPA expects to continue to serve just these two customers throughout the entire planning horizon. CPA does not serve any residential customers.

CPA analyzed one Preferred Conforming Portfolio ("Conforming Portfolio") as part of its integrated resource plan ("IRP"). The Conforming Portfolio of generation resources assumes forecasted 2028, 2030, 2035, 2040, and 2045 demand levels as assigned by the Commission's staff ("Staff"). The Conforming Portfolio uses demand levels provided by Staff, which assumed no customer demand growth. Based on the Clean System Power ("CSP") calculator's methodology and assumptions used in this IRP, the Conforming Portfolio is projected to achieve emissions at or below CPA's assigned proportional share derived from the following state-wide benchmarks: 30 MMT by 2030, 25 MMT by 2035, 16.8 MMT by 2040, and 8.68 MMT by 2045. The state-wide benchmarks differ from CPA's assigned load-ratio-share benchmark calculated through the CSP methodology. References herein to statewide benchmarks are distinct from CPA's allocated benchmark obligations shown in Tables 2-4.

In analyzing the Conforming Portfolio, CPA accepted the Commission provided commercial and industrial load shape.

[1] Calpine LLC is a Constellation Company.

CPA's renewables procurement comes from a range of energy technologies, including solar, solar-plus-storage, geothermal, and from a mix of resources that are in development and already operating. CPA will continue to actively monitor both its customer load shape as well as the development progress of the resources now under contract to evaluate whether CPA should further diversify its renewable energy purchases to include other renewable energy technologies in order to better meet the greenhouse gas ("GHG") emissions target.

The Conforming Portfolio includes:

- annual wholesale demand amount;
- Commission provided commercial/industrial load shape;
- renewable energy targets based on the current RPS requirements;
- total supply-side renewable energy in the portfolio, for years 2030 through year 2045 where additional GHG emissions free energy is forecasted, is assumed to be procured from Calpine's geothermal generation facilities (*i.e.,* "The Geysers"[2]) to meet GHG emissions targets;
- an RPS Portfolio Content Category 1 ("PCC 1") renewable resource mix consisting of existing geothermal and solar photovoltaic ("PV") (including solar PV with storage) based on procurement under contract as of August 10, 2026, out to 2045;
- addition of new geothermal generation and new battery storage based on allocations required by Commission Decision ("D.") 26-02-057;
- CPA's excluded Cost Allocation Mechanism ("CAM") allocations from the Resource Data Template ("RDT") because CPA's proportional share of CAM resources is not expected to materially affect portfolio planning conclusions and system reliability obligations; and
- CPA's proportional share of Commission Staff's allocated Assembly Bill ("AB") 1373 forecasted resources, including long-duration energy storage and offshore wind resources.

CPA commits to the following:

- meeting all Commission promulgated RA requirements and any future multi-year RA requirements;
- procuring adequate renewable energy and renewable energy credits ("RECs") from contracts of ten years or greater duration (long-term) in order to meet Senate Bill ("SB") 350 (De Leon) requirements and Commission promulgated RPS rules; and
- considering impacts on disadvantaged communities in its decision process prior to procuring energy directly from non-renewable energy resources that contribute to local air pollution, should any such unforeseen need arise.

[2] Geysers Power Company, LLC is a wholly-owned subsidiary of Calpine.

II. Study Design

CPA currently serves two customers – a large university and a large grocery store chain – as part of California's DA program. The main objectives of CPA's integrated resource planning process were to:

- analyze the Conforming Portfolio of generation resources, assuming forecasted load levels and the default commercial and industrial load shape as provided by Staff;
- estimate GHG emissions for the Conforming Portfolio using the CSP calculator;
- demonstrates how the Conforming Portfolio is designed to support the objectives identified in of Public Utilities Code ("PUC") Section 454.52(a)(1); and
- incorporate the results of the IRP and the resource make-up of the Conforming Portfolio as a guidepost for future renewables procurement.

Load Assignments for Each LSE

For this IRP, CPA used the finalized energy and peak demand load forecasts, and behind-the-meter ("BTM") PV information that had been developed pursuant to the January 16th, 2026 Administrative Law Judgement Ruling filed in this Rulemaking. The load assignment assumed no customer demand growth through 2045 to reflect the fact that the DA program is fully subscribed and will require legislative action to increase the customer participation cap. CPA did not provide alternative load or load modifier shapes, instead accepting the default hourly shapes in the CSP calculator.

Required and Optional Portfolios

CPA analyzed one Conforming Portfolio as part of its IRP. Based on CSP modeling assumptions, the Conforming Portfolio achieves emissions that or below CPA's allocated proportional share of the state-wide 2045 GHG benchmark. The assumed generation resources forecasted 2028, 2030, 2035, 2040, and 2045 demand levels as assigned by the Staff. The Conforming Portfolio uses a load shape provided by the Commission's model; the Conforming Portfolio achieves emissions that are equal to or less than CPA's allocated proportional share of the 30 MMT by 2030, 25 MMT by 2035, 16.8 MMT by 2040, and 8.68 MMT by 2045.

The Conforming Portfolio includes:

- amount of annual wholesale demand based on CPA's individual load assignment;
- Commission provided commercial/industrial load shape;
- renewable energy targets based on the current RPS requirements;
- total supply-side renewable energy in the portfolio, for year 2030 through year 2045, additional GHG free energy is forecasted—assumed to be procured from geothermal generation resources—to meet GHG emissions targets;
- RPS PCC 1 renewable resource mix of existing solar PV (including solar PV with storage) based on procurement as of 2027 extended to 2045;
- addition of new geothermal and battery storage, this additional forecasted procurement includes that procurement allocations required by D.26-02-057; and

- 2026 demand response allocations as well as Commission Staff provided AB 1373 resource allocations.

To determine a mix of resources in 2030, 2035, 2040, and 2045 that will meet CPA's GHG emissions targets for the Conforming Portfolio, CPA first forecasted its RPS procurement by extending any existing RPS contracts to 2045. This assumption has CPA meeting its 60% RPS by 2030 compliance obligation. The remaining GHG-free emissions procurement shortfall to meet the 2030, 2035, 2040, and 2045 GHG-emissions targets for the Conforming Portfolio was calculated and CPA is forecasting procurement from geothermal generation plants for 2030 and the years beyond. Further analysis is provided below under *Additional Resources*.

To meet CPA's system reliability obligation for years 2026 through 2045, CPA extended all existing 2026 RA capacity contracts through 2045 and included forecasted capacity procurement associated with D.26-02-057. In addition CPA forecasted its demand response and AB 1373 allocations provided by Staff. Any shortfall in capacity remaining is assumed to be procured from existing natural gas generation on an annual basis if needed.

The final 2030, 2035, 2040, and 2045 generation resource mix selected for the Conforming Portfolio is discussed further below.

a. Objectives

CPA procures energy, renewable energy, new GHG-free capacity and resource adequacy capacity on behalf of DA customers throughout California. The objectives for this IRP are to:

- analyze the conforming portfolio of generation resources assuming forecasted load levels provided by the Commission's staff and the default commercial/industrial load shape as provided by the Commission's model;
- estimate GHG emissions for the conforming portfolio using the Commission approved CSP calculator;
- show the preferred conforming portfolios meets all requirements of PUC Section 454.52(a)(1); and
- incorporate the results of the IRP and the resource make-up of the conforming portfolio as a guidepost for future renewables and GHG-free energy procurement.

b. Methodology

i. Modeling Tool(s)

CPA relied exclusively on the Commission's CSP calculator spreadsheet tool to estimate GHG emissions and local criteria pollutants. CPA did not independently validate Staff-provided assumptions embedded within the CSP calculator and relied on Commission-provided inputs

where specified. CPA did not conduct any production cost modeling or portfolio optimization studies. The CSP calculator and RDT are included in Appendix A.

ii. Modeling Approach

To determine a mix of resources in 2030, 2035, 2040, and 2045 that will meet CPA's GHG emissions targets for Conforming Portfolio, CPA first forecasted its RPS procurement by extending any existing PCC 1 RPS contracts that expire before 2030 to 2045. CPA's forecast does not indicate a PCC 1 RPS compliance shortfall. The remaining GHG-emissions free procurement to meet the 2030, 2035, 2040, and 2045 GHG-emissions targets for the Conforming Portfolio was calculated and, in this IRP, CPA is forecasting procurement from geothermal generation. More analysis is provided below under *Additional Resources.*

To meet CPA's reliability obligation for years 2028 through 2045, CPA extended all existing 2026 RA capacity contracts through 2045 and included forecasted capacity procurement associated with D.19-11-016, D.21-06-035, and D.26-02-057. In addition, per Staff direction, CPA used 2026 forecasted demand response allocations. Any remaining capacity shortfall is assumed, for planning purposes, to be met through market-based RA procurement, including existing natural gas generation if necessary.

The final 2030, 2035, 2040, and 2045 generation resource mix selected for the Conforming Portfolio is discussed further below.

Renewable Resources

CPA covers its RPS obligations derived from its customers' demand in two ways: (1) CPA receives long-term RECs contracted directly by the customer under a power purchase agreement ("PPA") with the facility (pursuant to SB 702[3]); or (2) the customer delivers qualifying long-term RPS directly to CPA to cover the compliance obligation. CPA already has secured contracts with a number of diverse renewable resources on a stable and long-term basis throughout the planning horizon.

The Conforming Portfolio includes the current contracts for RPS PCC 1 renewable resources CPA has procured to serve its retail customers as of 2027. In comparison to the 2022 IRP, CPA continues its reliance on long-term RPS contracts. Years 2030 through 2045 incorporates a mix of renewable resource technology types as actually procured for 2027. CPA is forecasted to meet the RPS compliance percentage of 60%. The level of RPS PCC 1 energy and RECs in each portfolio is the minimum needed to satisfy RPS portfolio content and portfolio quantity requirements for 2030 (*i.e.,* 75% of 60%, which is 45% per the direction offered by Staff). This IRP does not model CPA's procurement of RPS PCC 2 and RPS PCC 3 renewable energy credits ("RECs").

[3] *See* SB 702 (Hill), 2020.

Additional Resources

Currently, CPA procures unspecified system power to meet customer energy demand above that demand met with the energy from RPS PCC 1 renewable resources as required to comply with the California RPS Program. This is forecasted to continue through year 2045. However, in order to meet the 2030 GHG emissions targets assigned to CPA, the Conforming Portfolio requires additional procurement of GHG-emissions free energy to meet the GHG emissions targets the Commission has set. For planning purposes, that procurement is currently assumed to come from geothermal generation resources.

As part of CPA's procurement mandates directed by the Commission in D.19-11-016, D.21-06-035, and D.26-02-057, CPA has entered into long-term contracts with facilities that incorporate battery storage as part of the project. Therefore CPA's IRP includes these resources whether currently online, or forecasted to be online.

CPA has not modeled alternative procurement scenarios associated with a failure of forecasted AB 1373 resources to materialize because those resources are treated as Staff-directed assumptions in the current IRP cycle.

GHG Emissions

CPA relied upon the Commission-approved GHG calculator spreadsheet tool (*i.e.,* CSP calculator) to estimate GHG emissions for the Conforming Portfolio. Of all renewable energy resource contracts, only RPS PCC 1 resources are considered GHG-emissions free.

Resource Adequacy

RA capacity is procured separately from energy with the exception of capacity procurement related to the replacement of the Diablo Canyon Nuclear Power Plant.[4] Because of Commission decisions there have been tangible amounts of new GHG-emissions free RA capacity acquired, generally in the form of four-hour battery storage, along with a small amount of geothermal generation. These quantities are reported in the RDT. Also forecasted for future years is continuing procurement of RA capacity from existing resources, specifically natural gas generation facilities as well as procurement associated with Commission D.26-02-057. In addition, CPA, and all ESPs, also receive an RA allocation for a portion of RA procured by the investor-owned utilities ("IOUs") for reliability purposes when the cost of the procurement is borne by all customers (*i.e.,* CAM resources); this capacity and is not included in the RDT as CPA's proportional share is not material to system reliability planning. However, Commission Staff provided AB 1373 long-duration energy storage and offshore wind capacity are included in the RDT.

[4] *See* D.21-06-035.

Load Shape

CPA, an ESP, does not serve residential customers. Therefore, CPA elected to adopt the Commission provided commercial/industrial load shape as provided in the CSP calculator as the default profile to represent CPA's expected load shape in this IRP. The commercial/industrial load shape is the sum of baseline net energy for load, electric vehicle load, building electrification, energy efficiency, data center load, climate change load increases, climate change load decreases, BTM PVs, BTM storage losses and BTM storage capacity. These default load profiles are unaltered by CPA.

iii. Alternative Assumptions

CPA elected to analyze only one Conforming Portfolio and no alternative portfolios in this IRP cycle and therefore has no alternative assumptions to describe.

III. Study Results

CPA elected to analyze one conforming portfolio and no alternative portfolios. The Conforming Portfolio is targeted to meet CPA's proportional share of the 30 MMT by 2030, 25 MMT by 2035, 16.8 MMT by 2040, and 8.68 MMT by 2045. CPA used the 2028, 2030, 2035, 2040, and 2045 forecasted energy demand provided by Staff. The load assignment assumed no customer demand growth through 2045 to reflect the fact that the DA program is fully subscribed and will require legislative action to increase the customer participation cap.

a. Conforming and Alternative Portfolios

The Conforming Portfolio of generation resources assumes forecasted 2028, 2030, 2035, 2040, and 2045 demand levels assigned by Staff. The Conforming Portfolio uses a load shape provided by the Commission's model; the Conforming Portfolio achieves emissions that are equal to or less than CPA's proportional share of the 30 MMT by 2030, 25 MMT by 2035, 16.8 MMT by 2040, and 8.68 MMT by 2045.

The accompanying RDT lists all contracted and planned new resources associated with the Conforming Portfolio to achieve the Commission directed GHG-emissions targets.

At a summary level, the RDT lists the GHG-free emission capacity resources CPA has invested in or will invest in via a procurement contract of at least 10-years duration per Commission D.19-11-016, D.21-06-035 and D.26-02-057, RA capacity resources contracted in 2026 assumed through 2045, RPS generation resources contracted in as of August 10, 2026, out to 2045. Additional non-RPS, GHG emissions-free resources are included in the Conforming Portfolio which includes procurement of existing geothermal generation starting in 2030. For specific generation unit details, please refer to CPA's RDT associated with this IRP.

As shown in Table 1, the new resources listed in CPA's RDT conform to the mix of new resources identified in the 2025-2026 Transmission Planning Process ("TPP") Portfolio, battery storage, long-duration battery storage, geothermal energy generation, and offshore wind.

Table 1. CPA's Resource Mix and 2025-26 TPP Portfolio



b. Preferred Conforming Portfolio

CPA accepted the Commission's default commercial/industrial assumptions used to construct the load shape for the Conforming Portfolio based on the inputs in the CSP calculator.

The reduction in CPA's reliance on system power in years 2030 and beyond is attributable to the procurement of additional GHG-emissions free energy resources needed to bring the Conforming Portfolio's GHG emissions target at or under the Commission's GHG emissions benchmarks of 19.498 MMT in 2030, 15.653 MMT in 2035, 12.952 MMT in 2040, and 6.676 MMT in 2045 (shown in Table 2 below). To achieve CPA's proportional share of these GHG emissions benchmarks, CPA is forecasting the need to procure additional GHG-emissions free energy in an amount that equals approximately [redacted] of CPA's retail energy demand (approximately [redacted] GWh depending on the year modeled). These GHG-emissions free procurements are in addition to the PCC 1 RPS procurements that account for 45% of CPA's retail energy demand.

CPA's selection of resources in its 30 MMT and 25 MMT conforming portfolios is consistent with all of the goals in PUC Section 454.52(a)(1), as described in detail below.

GHG Reduction Targets

Based on the output of the CSP calculator, the 2030, 2035, 2040, and 2045 GHG emissions associated with the Conforming Portfolio are at the Commission's assigned GHG reduction benchmarks as shown

in Table 2. Thus, the Conforming Portfolio meets PUC Section 454.52(a)(1)(A) by reducing GHG emissions to meet state GHG reduction targets.

Renewable Energy

PUC Section 454.52(a)(1)(B) states that load-serving entities must procure at least 60% renewable energy resources by December 31, 2030. The resources in CPA's Conforming Portfolio are forecast to meet current RPS requirements for PCC 1, including the long-term contracting requirement, as well as future renewable procurement requirements, including the requirement that at least 45% of all PCC 1 energy is from eligible renewable generation by 2030. This is demonstrated in the CSP as well as CPA's 2026 Draft RPS Procurement Plan.[5]

Just and Reasonable Rates and Minimizing Bill Impact

CPA recognizes the importance of PUC Section 454.52(a)(1)(D)'s goal of minimizing the impact of planned procurement on customer bills. As an ESP, CPA operates in a competitive market with customers free to choose their electricity supplier from among a plethora of ESPs and, if applicable, their Community Choice Aggregator or their incumbent utility. Additional price competitive actions being taken by CPA may be found discussed in Section X and Appendix C of CPA's 2026 Draft RPS Procurement Plan. Lastly, as described under *Diversity, Sustainability, and Resilience of Transmission, Distribution, and Local Communities*, CPA does not discourage its customers' efforts to reduce costs by developing BTM generation capacity, deploying energy efficiency efforts, or participating in demand response programs.

Ensuring System and Local Reliability

To meet PUC Section 454.52(a)(1)(E)'s goal of ensuring system and local reliability, CPA has prepared a forecast of how it plans to meet the Commission's system RA requirements as detailed in Section III(f) of this IRP. Moreover, CPA's system RA portfolio is forecasted to consist of a combination of short-term RA capacity contracts, long-term RA capacity contracts to meet IRP procurement requirements (*e.g.,* D.19-11-016, D.21-06-035, and D.26-02-057), which are intended to support both system reliability needs but also to meet the impact of climate change and electrification of the California economy, and Commission demand response allocations. CPA also commits to meeting all local RA requirements, except for those local RA requirements that must be contracted for by the central procurement entities. As part of D.19-11-016 and D.21-06-035, CPA has procured long-term capacity and GHG-free energy to meet its share of the Minimum Zero-Emitting Capacity (i.e. Diablo Canyon Replacement) obligation.

[5] Filed in Commission Rulemaking 24-01-017 on June 12, 2026.

In the San Diego Local Capacity Requirement ("LCR") area, CPA continues to procure local RA at a minimum of three-years forward until such time as the Commission establishes a central procurement entity for that LCR and relieves CPA of the local RA procurement obligation.

Additionally, the resources in the Conforming Portfolio will contribute to grid reliability by providing 24-hour energy (in the case of geothermal) and providing the ability to shift production into other hours (in the case of co-located battery storage). Additionally, solar and geothermal all have different production profiles that help smooth out the generation associated with CPA's RPS over any given 24-hour period.

To ensure both system and local capacity reliability, and in order to fulfill its RA capacity obligations under the Commission's RA program, CPA uses a combination of public request for offer ("RFO") processes, participation in utility RFO processes, self-supply, purchases from corporate affiliates, and direct bilateral procurement from counterparties that control RA capacity. CPA has not incurred any penalties to date for non-compliance under the RA program.

RPS Long-Term Procurement Requirement

PUC Section 399.13(b)(1) requires that at least 65% of a retail sellers' RPS procurement come from long-term contracts, or in its ownership or ownership agreements for eligible renewable energy resources. As extensively detailed in CPA's 2026 Draft RPS Procurement Plan, CPA plans to meet its entire 65% long-term contracting requirement with three projects, including long-term RPS from a solar facility that its university customer has under a long-term PPA, CPA's university customer's solar-plus-storage project, and CPA's grocery store customer's long-term RPS agreement.

Diversity, Sustainability, and Resilience of Transmission, Distribution, and Local Communities

Consistent with the goals in PUC Section 454.52(a)(1)(G), CPA has selected a diverse set of renewable technological resources for its conforming portfolio, including solar PV and geothermal generation. CPA is not constrained by a preferred geographic location in its current, nor in its expected future renewable electricity procurement. Thus, CPA is free to weigh-in its procurement decisions, locations best suited to the needs of the grid, while balancing other statutory goals such as cost minimization and enhancement of local communities.

CPA's customers have also deployed nearly 10 MWs of BTM renewable generating capacity and have programs in place to analyze additional opportunities to increase BTM generating capacity. Additionally, CPA's customers have over 30 sites with electric vehicle charging system infrastructure in place, with more opportunities currently being analyzed. These efforts have the effect of accreting resilience to the transmission and distribution grid, while also strengthening the local communities served by those customer sites.

Demand-Side Energy Management

PUC Section 454.52(a)(1)(H) states portfolios must have a goal of enhancing demand-side energy management. CPA has an allocated share of demand response resources from each IOU in its portfolio. Additionally, CPA does nothing to discourage its customers from participating in IOU-run demand response programs. In fact, CPA customers participate in demand response programs at over 100 customer sites across California, for a combined capacity of over 2.5 MWs. In addition, CPA's grocery store customer has invested tens of millions of dollars in energy efficiency projects, including integrating LED lighting, Building Energy Management Systems, ECM Motors, Refrigeration Controls, Anti-Sweat heaters, etc.

Localized Air Pollutants

CPA's Conforming Portfolio complies with the PUC Section 352(a)(1)(I) goal of minimizing localized air pollutants and other GHG emissions, with early priority on disadvantaged communities ("DACs"). Table 4 below summarizes the expected NOx, PM2.5, and SO_2 emissions from gas-fired generation associated with CPA's Conforming Portfolio. CPA does not directly contract with any fossil fuel-fired generation to meet its energy needs and has no plans to in the future. All gas generation associated with the Conforming Portfolio is from CAISO system power. The emissions are estimated directly within the CSP calculator.

Additionally, some of CPA's customers' renewable energy facility development is occurring in DACs. Not only do these renewable-energy projects create economic development at the time of construction, but also the technology type of these renewable energy facilities are zero pollutant emissions for the life of their electricity generation, it reduces CPA's reliance on CAISO fossil fuel-derived system power. These renewable energy facility developments may reduce pollutant emissions in DACs where fossil fuel generation is located and certainly reduce pollutant emissions state-wide.

Given that CPA does not have a defined service territory and only provides service to select commercial and institutional customers, CPA as a stand-alone corporate entity does not have residential programs related to activities and programs in disadvantaged communities such as demand response programs, affordability programs, solar programs, or outreach to disadvantaged customers. However, CPA's customers support such IOU programs for DACs through non-bypassable charges, including through distribution rates and Public Purposes Program charges. Further, given commercial penetration rates, CPA's customers located in DACs are likely to undertake self-generation with the use of roof-top solar to support local emissions reductions.

Lastly, as described above, CPA's customers deployed a significant amount of BTM renewable generating capacity. This arrangement reduces CPA's reliance on system power by some measurable amount, which reduces emissions state-wide.

Diverse Portfolio of Energy Resources

CPA is obligated to procure certain GHG emissions-free resources in support of system reliability, per D.19-11-016, D.21-06-035, and D.26-02-057. This includes capacity associated with solar PV, four-hour and eight-hour duration battery storage, and geothermal generation. CPA does not expect, and has not modeled, any new natural gas resources. CPA may re-contract with existing natural gas resources as necessary.

Additionally, as provided by Commission Staff, CPA modeled its proportional share of forecasted AB 1373 procurement which assumes Department of Water Resources long-duration battery storage and offshore wind generation procurement.

Comparison of 2045 Energy Resources with 2035 Energy Resources from CPA's 2022 IRP

In its 2026 IRP, CPA's Retail Sales Forecast decreased slightly from its 2022 IRP, therefore, the quantity of supply from energy resources remains essentially unchanged. The selected technologies needed to meet its GHG-emissions target remain geothermal generation. CPA's reliance on geothermal generation is not because Calpine is the largest geothermal generator in California, although that does weigh into the decision making process, but because CPA has also entered into geothermal capacity contracts in support of D.21-06-035, forecasted geothermal capacity procurement from D.26-02-057, as well as the inclusion of the forecasted AB 1373 allocations provided by Staff.

c. GHG Emissions Results

CPA adopted the Commission-approved GHG emissions benchmarks for DA customers in each California IOU service territory. To translate these benchmarks into an appropriate benchmark for CPA specifically, CPA used a load ratio share allocation, as built directly into the CSP calculator tool. The load ratio share is calculated separately for each service territory.

Table 2. CPA's Load Ratio Share for Years 2030

Portfolio	LSEs within Utility Territory	2030 DA GHG Emissions Benchmark (MMT)	2030 DA Load (GWh)	CPA's 2030 Load (GWh)	CPA's Benchmark (MMT)
30 MMT	Pacific Gas and Electric Company (Direct Access)	*0.9185*	*11,393*	[redacted]	[redacted]
	Southern California Edison Company (Direct Access)	*1.1123*	*12,230*		
	San Diego Gas and Electric Company (Direct Access)	*0.4392*	*3,942*		
	TOTAL		**27,565**		

Table 3. CPA's Load Ratio Share for Years 2035

Portfolio	LSEs within Utility Territory	2035 DA GHG Emissions Benchmark (MMT)	2035 DA Load (GWh)	CPA's 2035 Load (GWh)	CPA's Benchmark (MMT)
25 MMT	Pacific Gas and Electric Company (Direct Access)	*0.5888*	*11,393*	[redacted]	
	Southern California Edison Company (Direct Access)	*0.7540*	*12,230*		
	San Diego Gas and Electric Company (Direct Access)	*0.2852*	*3,942*		
	TOTAL		**27,565**		

Table 4 shows CPA's GHG emissions results from the CSP calculator. For all modeled years emissions levels fall just below the benchmarks listed in the table above for each scenario.

Table 4. CPA's CO_2 Emissions for Years 2030, 2034, 2040, and 2045

	Emissions Total	*Unit*	2030	2035	2040	2045
	CO_2	*MMt/yr*	*0.11*	*0.07*	*0.05*	*0.03*

d. Local Air Pollutant Minimization and Disadvantaged Communities

i. Local Air Pollutants

PUC Section 454.52(a)(1)(I) requires load serving entities ("LSEs") to "[m]inimize localized air pollutants and other greenhouse gas emissions, with early priority on disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code."

Table 5 summarizes expected NOx, PM2.5, and SO_2 emissions from gas-fired generation associated with CPA's Conforming Portfolio. CPA does not directly contract with any fossil-fired generation to meet its energy needs. All gas generation associated with the Conforming Portfolio is from CAISO system power. While CPA does not plan to procure energy directly from in-state generation resources in the future (excluding RPS and GHG-free emission sources), to the extent it does, CPA will consider the potential impact of such procurement on DACs as part of its decision-making process.

The emissions are estimated directly within the CSP calculator.

Table 5 shows emissions decrease over time. This is largely due to the addition of GHG-free emissions generation.

Table 5. CPA's estimated NO_x, SO_2, and PM2.5 emissions for the Conforming Portfolio.

	Emissions Total	*Unit*	2030	2035	2040	2045
	PM2.5	*tonnes/yr*	*20*	*7*	*5*	*4*
	SO_2	*tonnes/yr*	*2*	*1*	*0*	*0*
	NOx	*tonnes/yr*	*25*	*9*	*7*	*3*

ii. Focus on Disadvantaged Communities

CPA's specific activities are targeted to support DACs, minimize criteria air pollutants, and reduce system reliance on fossil-fueled power plants involve supporting procurement from, and new development of, renewable energy facilities. As detailed in CPA's 2026 Draft RPS Procurement Plan, Appendix D, CPA does not own renewable generation projects located within DACs.

Of the generation facilities located in California in communities that scored in the highest 25% of overall scores in the CalEnviroScreen 4.0 and that CPA has under contract for this IRP, two renewable generation facilities in DACs identified as rural and agricultural areas are identified below. As CPA is a contractual off taker and not the developer, CPA elected to use zip codes to identify the facilities.

Zip Code: [redacted] – Unincorporated Kings County area, [redacted] Solar
Zip Code: [redacted] – Mojave, [redacted] Solar and Energy Storage

Based on future GHG emissions targets for CPA, it is anticipated that additional future procurement and future development of renewable energy facilities will occur and be documented in future IRPs. Such zero pollutant emitting projects will support state-wide emission reductions as well as provide for the potential reduction of air pollutants through the displacement of fossil fuel generation that are located in DACs. These projects will also reduce CPA's reliance on fossil fuel derived system power. Furthermore, CPA does not plan to execute any contracts with any new criteria air polluting emitting resources in DACs. CPA does not dispatch specific fossil fuel resources. CPA's procurement activities are forecasted to meet 2030 through 2045 GHG-emission reduction and renewable energy targets. That procurement is forecasted to come from RPS eligible resources.

Moreover, CPA through its parent company Calpine, supports the reduction of GHG emissions and reliance of fossil fuels through the development and/or procurement of large-scale energy storage and in-state natural gas generation utilizing carbon capture and sequestration ("CCS")

technologies.[6] For example, Calpine's Nova Power Bank, a battery energy storage system project located in Southern California, repurposed a decommissioned natural gas-fired power plant and provides 680 MWs of storage and discharge capabilities. Calpine has also received funding from the U.S. Department of Energy to actively pursue the deployment of CCS technology at their gas-fired facilities, which includes Sutter Energy Center and Los Medanos Energy Center in California.

Calpine conducts targeted outreach directed toward DACs and the communities in which it serves. To that end, Calpine engages with and supports its communities throughout the lifetime of all projects, and through local charitable undertakings tailored to each community. For example, at The Geysers, Calpine supports the youth of Lake County's Future Farmers for America by buying their raised animals, then donating the meat and other animal products to County food banks. This practice goes beyond traditional charity by empowering young farmers while simultaneously benefiting the wider community.

To respond to historically disenfranchised communities in which Calpine operates, the Calpine engages with local businesses, particularly those that are owned by minorities, women, and service-disabled veterans. Calpine continues to have ongoing and long-term engagement with organizations and the community in an impactful way. Calpine also works closely with minority serving institutions, particularly community colleges, to offer apprenticeship programs.

In the Pittsburg, California community, Calpine has a long history of supporting various programs aimed at addressing food insecurity in the region. They have provided thousands of turkeys during the Thanksgiving holiday to families across Contra Costa County. Calpine has sponsored and volunteered with the Contra Costa Food Bank. This work has extended to the Loaves and Fishes organization, which provides food pantry items to the unhoused, veteran and senior community through their mobile unit. Calpine has volunteered at their central kitchens, which provide patrons with a warm meal and connect them with partner organizations providing hygienic care, clothing, health and addiction services, and available city programs.

More information on community outreach programs may be found in the Calpine 2023 Sustainability Report.

Constellation, the corporate parent of Calpine, continues to publish its annual Constellation Sustainability Report.[7] The 2026 Constellation Sustainability Report provides a detailed blueprint of Constellation's overall corporate strategies, goals and initiatives for key environmental, social, workforce, and governance topics driving our broader corporate sustainability and environmental objectives to accelerate the nation's transition to a clean

[6] *See Calpine 2023 Sustainability Report* ("Calpine 2023 Sustainability Report") at 10-12, available at https://www.calpine.com/wp-content/uploads/2024/11/Calpine_2023_Sustainability_Report-1.pdf

[7] *See Constellation 2026 Sustainability Report*, available at https://www.constellationenergy.com/sustainability/environment/constellation-sustainability-report.html.

energy economy. Constellation works within local communities to make environmental justice and energy equity a central focus of its actions and works to build a more equitable future for its employees, customers, business partners and community members.

For example, in 2026 Constellation held a series of volunteer events across the nation. This summer, for the first time, students from the West Coast, including California, are participating in Constellation's Youth Energy Summit – a week-long, in person, experience that brings together young people who are interested in helping to solve America's energy and environmental challenges through clean energy careers.

e. Cost and Rate Analysis

As an ESP, CPA operates in a competitive market with customers free to choose among a host of ESPs and their Community Choice Aggregators and these customers demand the products and services that best meet their needs and budgets. Thus, maintaining competitive pricing is critical to maintaining satisfied customers. CPA notes that the Commission has a more limited scope of oversight over ESPs. ESPs are not regulated as "public utilities" under PUC Section 216; the Commission does not regulate retail sale transactions by ESPs or establish rates for ESP products or services, nor does the Commission directly review and approve of the procurement activities of ESPs undertaken in order to serve an ESP's retail transactions which includes cost quantification information. However, in order to be responsive to the Commission and the IRP process, costs for energy and RPS and RA procurement obligations have not materially changed from CPA's 2022 IRP and were approximately $29 million per year in 2025. CPA provides detailed renewable cost and rate impact, both historical and forecast, in Appendix C of CPA's 2026 Draft RPS Procurement Plan.

f. System Reliability Analysis

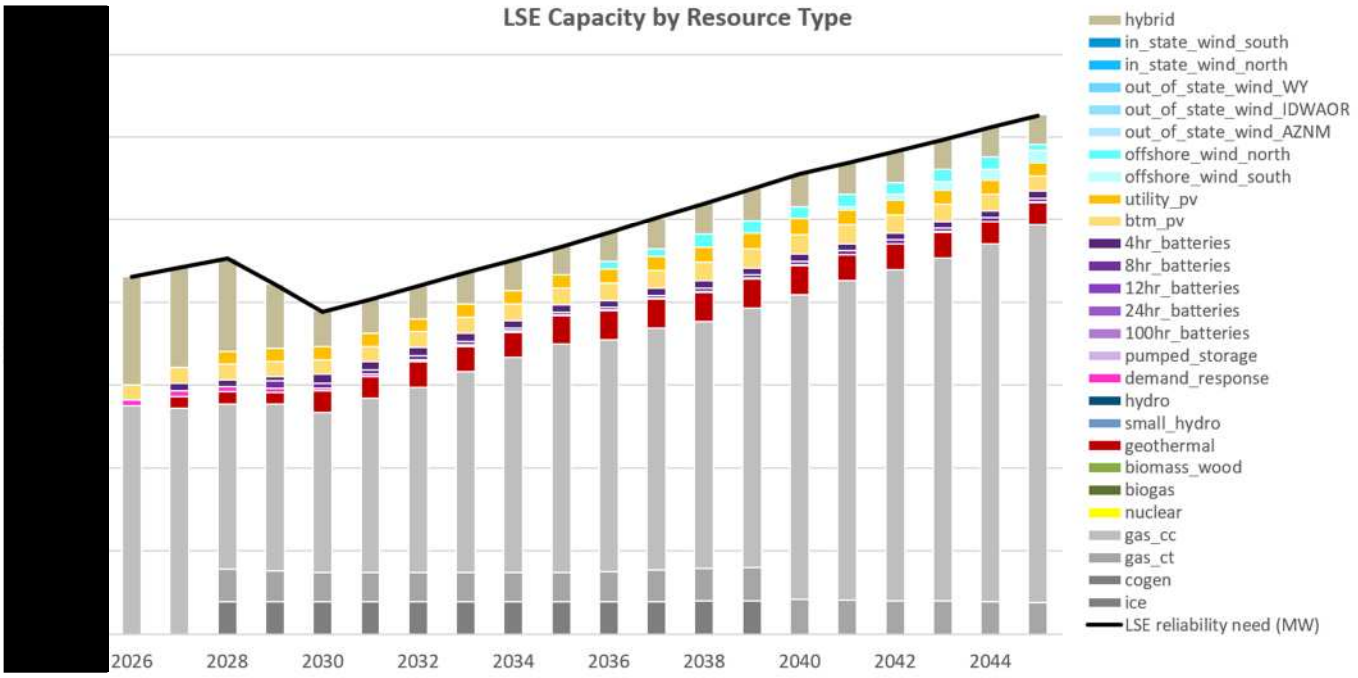
CPA is committed to meeting all Commission RA requirements. With the continuing changes to the RA construct, including Commission compliance rule changes and the procurement of RA to meet a 24-hour profile, it is difficult to forecast RA procurement in detail. Nonetheless, CPA provides below the Load and Resource Table by Contract Status for the Conforming Portfolio. The RA portfolio includes the following resources:

- All executed contracts or intercompany transfers for RA with deliveries in 2026. All such contracts are short-term deals with deliveries between 2026 through 2028 except for contracts entered or forecasted to be entered to meet the capacity obligations assigned to CPA in Commission D.19-11-016, D.21-06-035, and D.26-02-057 which requires the purchases to have a term of no less than 10-years.
- CPA's 2026 load ratio share of demand response resources, held constant through year 2045, and Staff's allocation of AB 1373 forecasted procurement.
- CPA did not model its allocated share of resources subject to the CAM, as noted previously in this IRP, due to CPA's proportional load share, CAM resources are de minimis.

- To the extent there is still a gap in RA procurement needs, CPA assumes it will procure System RA using short-term, RA-only contracts or intercompany transfers from existing natural gas generation resources. These are planned existing contracts for combined cycle resources in the tracking table.

Table 6. Load and Resource by Contract Status

[redacted]



g. Existing Resource Planning

CPA's Conforming Portfolio largely includes existing resources. Given the mid-term reliability compliance requirements, which CPA has successfully completed, CPA's Conforming Portfolio includes more capacity resources in development than its 2022 IRP. The existing resources that CPA relies upon are stable resources that add numerous benefits to the grid. CPA's online long-term RPS resources consist of a portion of the output from The Geysers' geothermal operations, which has a long and predictable operating history and of the university customer's existing solar facility, which has operated reliably since commercial operations began in 2016. Reliance on such stable resources, particularly when a resource was developed specifically for a customer, is reasonable and mitigates any risk that CPA will not be able to continue to procure that existing resource.

In CPA's 2022 IRP 25MMT preferred Conforming Portfolio, the percentage of existing resources that were forecasted was over 90%. The main driver for the difference in percentage of "online" resources currently under long-term contract between CPA's 2026 IRP and CPA's 2022 IRP was the undertaken procurement associated with D.19-11-016, D.21-06-035, and D.26-02-057 in the intervening IRP reporting years. CPA assumes that certain existing contracts may be extended and/or renewed into the future years beyond 2035.

h. Hydro Generation Risk Management

CPA's portfolio has no dependence on hydroelectricity generation and no exposure to the risk of reduced hydro availability due to climate change induced drought.

i. Long-Duration Storage Planning

As part of D. 21-06-035 and D.26-02-057, CPA has a mid-term reliability obligation to procure its share of 1,000 MWs of long-duration storage, which it has achieved, as well as its share of 1,500 MWs of long-duration storage associated with D.26-02-057. Given the current cost of long-duration storage, it is unlikely that CPA will procure more long-duration storage than it is already directed to by D.26-02-057. CPA forecasted procurement of long-duration storage by 2028 as well as AB 1373 allocations which includes 12-hour and 24-hour long-duration energy storage starting in 2032.

j. Clean Firm Power Planning

As part of D.19-11-016, D.21-06-035, and D.26-02-057, CPA has achieved its mid-term reliability obligation to procure its share of 1,000 MWs of clean firm power. CPA's IRP includes its mid-term reliability procurement of geothermal capacity procurement as well as Commission Staff provided AB 1373 allocations which includes geothermal energy starting in 2032.

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

CPA's Conforming Portfolio has little dependence on specific wind resources at specific locations. What little wind reliance is associated with a portfolio of wind resources located throughout California. Given the long-term contracts CPA already has under contract, CPA does not anticipate any additional out-of-state wind procurement at this time.

l. Offshore Wind Planning

CPA's IRP includes AB 1373 allocations which includes offshore wind energy starting in 2036. Excluding those allocations, CPA did not model additional offshore wind procurement in this year's IRP. Between the current estimated cost, transmission upgrades needed and the long planning horizon, this type of resource was not selected for additional procurement modeling in this IRP cycle.

However, as with other state and Commission procurement directives, if so ordered, CPA will procure offshore wind and will include offshore wind planning details in future IRPs.

m. Transmission Planning

At the time of this IRP, CPA does not have any planned or executed renewable energy procurement contracts that are contingent upon a significant transmission upgrade or development. Additionally, CPA assumed that it will be able to extend the duration and procurement quantities of existing renewable energy procurement contracts in order to achieve RPS compliance in 2030 and beyond. Therefore, the geographical location of this procurement is predicated on existing renewable generation facilities by that timeframe.

CPA is not constrained by a preferred geographic location in its current nor in its expected future renewable energy procurement.

IV. Action Plan

a. Proposed Procurement Activities and Potential Barriers

In the near term, CPA proposes to stay focused on meeting its remaining procurement obligations under Commission D.26-02-057, having substantially completed its procurement obligations under D.19-11-016 and D.21-06-035.

CPA will rely on approximately [redacted] GWh of existing geothermal energy resources in order to meet its 2030 GHG-emissions target and years beyond. Please see *Additional Resources* in this IRP for additional details.

CPA has no forecasted plans to procure additional storage resources in this year's IRP beyond its obligations associated with D.19-11-016 and D.21-06-035 obligations, to which the regulatory obligations have been fulfilled. However, CPA has assumed procurement associated with Commission D.26-02-057, which has an energy storage resource component.

For this year's IRP, CPA does not forecast procuring demand response, energy efficiency, or distributed generation resources, nor does CPA forecast investments in transportation electrification or expansion of building electrification programs for its customers. Procurement of long-lead time resources under D.24-08-064 is incorporated into this IRP and are materially completed, as well as Commission Staff's AB 1373 allocations. However, CPA has assumed procurement associated with D.26-02-057, which has a long-lead time energy storage resource component. In this IRP, CPA has not modeled additional procurement scenarios on what additional GHG-emissions free energy procurement it would undertake if, in the unlikely event, forecasted AB 1373 resources fail to materialize.

b. Disadvantaged Communities (DACs)

As detailed above in *Diversity, Sustainability, and Resilience of Transmission, Distribution, and Local Communities* above, CPA's customers have deployed nearly 10 MWs of BTM renewable generating capacity, with nearly 1.3 MWs of capacity coming from customer sites located in DACs. One customer is analyzing over 60 additional sites for solar energy opportunities. CPA's customers are also deploying additional electric vehicle charging system infrastructure at CPA's customer sites located in DACs, with even more opportunities currently being analyzed. Lastly, CPA's grocery store client is also evaluating additional demand response opportunities, including for sites located in DACs. Finally, some of CPA-customers' renewable energy development is an emissions free facility occurring in a DAC. Presumably, renewable energy facilities that are emissions free not only aid DACs with economic development, but also aid the surrounding communities, whether disadvantaged or not, with the purported health benefits associated with providing pollutant-free electricity generation.

CPA, through its parent company Calpine, conducts targeted outreach directed toward DACs and the communities in which it serves. To that end, Calpine engages with, and supports, its communities throughout the lifetime of all projects, and through local charitable undertakings tailored to each community. For example, at The Geysers, Calpine supports the youth of Lake County's Future Farmers for America by buying their raised animals, then donating the meat and other animal products to the County's food banks. This practice goes beyond traditional charity by empowering young farmers while simultaneously benefiting the wider community. Furthermore, in the communities in which it operates, Calpine has a history of engagement with local businesses, particularly those that are owned by minorities, women, and service-disabled veterans. As a result of this history of community-engagement and commitment to continued, future engagement, Calpine has affirmed its social license to operate in the communities it serves. Calpine also works closely with minority serving institutions, particularly community colleges, to offer apprenticeship programs.

More information on Calpine's community outreach programs may be found in the 2023 Sustainability Report.[8]

Constellation, Calpine's corporate parent, strongly believes in giving back to the communities it serves. In 2025 alone, Constellation contributed a total of $24.5 million, in combined company, foundation, and employee giving, plus Constellation employees logged nearly 130,000 volunteer hours in service to communities, including contributions towards charities in California.

c. LSEs' Tribal Customers

CPA would engage with Tribal Customers in the same manner as any other potential customer. By offering an energy product at prices less than the Tribal Customer's utility or community choice

[8] *See* 2023 Sustainability Report at 26-27.

aggregator, such energy savings may support broader operational or community priorities identified by Tribal Customers.

d. Procurement Products

CPA is unaware of any physical or financial products it may utilize in its procurement activities associated with its Conforming Portfolio.

e. Commission Direction of Actions

CPA has no additional requests for the Commission at the time of this IRP.

V. Lessons Learned

Based on its IRP process, CPA is confident that it is on track to satisfy all existing state requirements with respect to RPS (including long-term contracting requirements), RA, and energy storage procurement.

CPA has concerns about future system reliability in a GHG-free resource portfolio. With increasing reliance on variable resources, especially wind and solar PV, that have energy limitations on an annual, seasonal, and hourly basis, the forecasted use of all available generation technologies to reduce GHG emissions should continue to be a goal of the IRP process. While CPA does not rely on CCS technologies applied to existing natural gas generation to meet its 2030 and beyond GHG emissions targets in this IRP, it is anticipated that natural gas generation will operate at high-capacity factors in order for CCS to be a cost-effective technology. CPA recognizes that CCS technologies may play a future role in supporting reliability and reducing emissions associated with thermal generation resources by converting what is currently being dispatched as peaking resources into base load resources. CCS conversions will also help address major weather events that could depress solar PV generation for days, if not weeks, and counteract the impact of extended low water years due to drought conditions impacting hydroelectric generation, which will increase grid resilience and reliability.

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**: 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).*

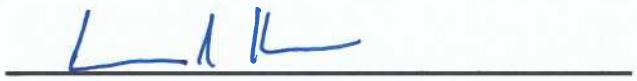
***Transmission Planning Process (TPP)**: process conducted by the California Independent System Operator (CAISO) to identify potential transmission system limitations and areas that need reinforcements over 10-year and 15-year horizons.*

OFFICER VERIFICATION FORM

I am an officer of the reporting organization herein, and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on _August 5th, 2026_ at _San Diego, California_



Jeff Huber, Vice President, Calpine PowerAmerica-CA, LLC

Integrated Resource Planning (R.25-06-019)
2026 IRP Filing Requirements
LSE Contact Information Form

Please provide the following information. CPUC staff will contact the person(s) listed here for questions about LSE's filing.

Name of Load Serving Entity (LSE)	Calpine PowerAmerica-CA LLC
The LSE's abbreviation, provided in the Resource Data Template's workbook in the "lse_names" tab	CPA

Contact Person for Questions about this Filing	
Name	Greg Bass
Title	Regulatory Director
Email	Greg.bass@calpine.com
Telephone	619-540-5026

Back-Up Contact Person for Questions about this Filing (Optional)	
Name	Katie Jorrie
Title	Attorney for CPA
Email	katiejorrie@dwt.com
Telephone	415-276-6554

Back-Up Contact Person for Questions about this Filing (Optional)	
Name	
Title	
Email	
Telephone	

Appendix 1:

(Confidential Version)

Resource Data Templates:

cpa_rdtv3_8mmt_preferred_conforming_na_confidential_v1

Clean System Power Calculators:

cpa_csp_8MMT_preferred_conforming_na_confidential_v1

(Entire Appendix 1 Filed Under Seal)