**BEFORE THE PUBLIC UTILITIES COMMISSION**
**OF THE STATE OF CALIFORNIA**

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

# CLEAN POWER ALLIANCE OF SOUTHERN CALIFORNIA'S 2026 INTEGRATED RESOURCE PLAN [PUBLIC VERSION]

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Attorney for
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August 10, 2026

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In compliance with the requirements of California Public Utilities Code Sections 454.51 and 454.52, California Public Utilities Commission ("Commission") Decision ("D.") 22-02-004**,** *Assigned Commissioner and Assigned Administrative Law Judges' Ruling Identifying Issues and Schedule of Review for 2026 Renewables Portfolio Standard Procurement Plans* ("ACR"), issued on January 16, 2026, the *Email Ruling Granting Joint Request for Extension of Load Serving Entity ('LSE') Integrated Resource Plan ('IRP') Filings*, issued on March 9, 2026, and other rulings and guidance in the above-captioned proceeding, Clean Power Alliance of Southern California ("CPA") hereby provides its 2026 Integrated Resource Plan ("IRP") to the Commission for certification.

## I. IRP DOCUMENTS INCLUDED AS ATTACHMENTS TO THIS FILING

CPA is e-filing this document in the instant Rulemaking and serving it to all parties identified in this Rulemaking's service list. Attached to this Filing are the following IRP related documents:

- *Attachment A* – CPA's IRP Verification
- *Attachment B* – CPA's IRP Narrative Template

- *Attachment C* – CPA's Resource Data Template Version 3 and Clean Power System Calculator (Public Version)

- *CPA's Notice of Availability* – CPA's Notice of Availability of public versions of its IRP documents

## II. REQUEST FOR CONFIDENTIAL TREATMENT OF NON-PUBLIC DOCUMENTS

CPA has developed both public (redacted) and confidential (unredacted) versions of its Resource Data Templates ("RDT") and Clean System Power ("CSP") spreadsheets. CPA has posted the public versions of these documents on its website and is submitting the confidential versions of these documents to the Energy Division through the Commission's file transfer protocol ("FTP") site. Concurrently with the submission of this IRP, CPA is filing a Motion to File Under Seal setting forth the basis for protecting of confidential information redacted from the public versions of these documents.

## III. CONCLUSION

CPA thanks the Commission for its time and effort in the 2024-2027 IRP cycle and for its review of CPA's IRP. CPA respectfully requests that the Commission certify its IRP.

Dated: August 10, 2026

Respectfully submitted,

*/s/ Justin Wynne*

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# Attachment A
# Verification

## VERIFICATION

I am the Chief Executive Officer of the Clean Power Alliance of Southern California ("CPA") and am authorized to make this verification on CPA's behalf. The statements and information in CPA's Integrated Resource Plan and all attachments thereto are true and accurate 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 10, 2026 at Los Angeles, California.

*/s/ Matthew Langer*

Matthew Langer
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# Attachment B
# CPA's IRP Narrative Template

# 2026 Integrated Resource Plan

CLEAN POWER ALLIANCE OF SOUTHERN CALIFORNIA

2026 Integrated Resource Plan

August 10, 2026

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# I. Executive Summary

Clean Power Alliance of Southern California (CPA) is a Load Serving Entity (LSE) and administrator of a Community Choice Aggregation (CCA) program. Formed as a Joint Powers Authority, CPA's 38 member jurisdictions include the unincorporated areas of Los Angeles and Ventura Counties, as well as the cities of Agoura Hills, Alhambra, Arcadia, Beverly Hills, Calabasas, Camarillo, Carson, Claremont, Culver City, Downey, Hawaiian Gardens, Hawthorne, Hermosa Beach, La Cañada Flintridge, Lynwood, Malibu, Manhattan Beach, Monrovia, Moorpark, Ojai, Oxnard, Paramount, Port Hueneme, Redondo Beach, Rolling Hills Estates, Santa Monica, Santa Paula, Sierra Madre, Simi Valley, South Pasadena, Temple City, Thousand Oaks, Ventura, West Hollywood, Westlake Village, and Whittier. CPA serves over 1 million customer accounts representing over 3 million residents and businesses. CPA is governed by a Board of Directors (Board) comprised of elected officials and staff and public experts appointed by its member cities and counties, spanning a territory that is diverse in geography, climate, and customer demographics.

CPA began offering service to municipal customers of unincorporated Los Angeles County in February 2018 and began service to non-residential customers of unincorporated Los Angeles County, Rolling Hills Estates, and South Pasadena beginning in June 2018. CPA enrolled residential customers from 31 of its member jurisdictions in February 2019 and completed enrollment of its then-current non-residential customers in May 2019. Both residential and non-residential customer enrollments in Westlake Village occurred in June 2020. In March 2024 CPA completed enrollment for all customers in Hermosa Beach, Monrovia, and Santa Paula, and in October 2025 all customers in La Canada Flintridge, Lynwood, and Port Hueneme began transitioning to CPA service. Additionally, CPA filed Addenda Number 6 to its implementation plan and will enroll all customers in the cities of Cudahy and Fillmore beginning in October 2027.

As set out in its Joint Powers Agreement (JPA), CPA is a mission-driven organization. CPA is charged with to developing and maintaining an electric supply portfolio with overall lower greenhouse gas (GHG) emissions than that of the local investor owned utility (IOU), Southern California Edison (SCE). CPA's JPA encourages the use and development of cost-effective renewable and distributed energy resources and discourages the use of unbundled renewable energy credits (RECs). CPA also seeks to manage its energy portfolio and products in a manner that provides customer value, support public health, promotes regional economic benefits and workforce development, and offers customers a choice of differentiated renewable products.

Now in its eighth year of operations, CPA relies on a blend of short- and long-term procurement products and resources to meet the needs of its customers while remaining price-competitive and satisfying regulatory requirements. CPA currently offers three supply options: Lean Power (a minimum of 40 percent clean energy content), Clean Power (a minimum of 50 percent clean energy content), and 100% Green Power (100 percent renewable energy content). CPA procures electricity for its customers from a variety of resources guided by policies adopted by CPA's governing body and by regulatory requirements established by the Legislature and state regulatory agencies. CPA is committed to providing safe, reliable,

affordable, and clean energy to its customers and to collaborating with statewide energy stakeholders to support California's energy goals.

Consistent with CPA's governance practices and Public Utilities Code section 454.52, this Integrated Resource Plan (IRP) was approved on July 22, 2026, by the CPA Energy Planning & Resources Committee, the standing committee to whom the Board delegated authority for approval of the IRP through formal action on July 2, 2026, similar to the approval process used for CPA's 2018, 2020, and 2022 IRPs.

This IRP describes CPA's planning approach and modeling results to support statewide coordination and demonstrate portfolio conformance with the California Public Utilities Commission's (CPUC's or Commission's) 2026 IRP filing requirements. CPA developed one Preferred Conforming Portfolio consistent with the 8 MMT by 2045 GHG benchmark framework, using assumptions that are aligned with CPUC planning requirements and statewide modeling conventions. CPA estimated portfolio emissions using the CPUC's Clean System Power (CSP) Calculator to demonstrate that portfolio emissions are at or below CPA's CPUC benchmark levels. The Preferred Conforming Portfolio reflects a diversified mix of long-term clean resources, anchored by wind and solar and supported by 4-hour and 8-hour storage, along with geothermal and biomass resources that contribute to operational diversity and clean firm capability to support reliability and reduce GHG emissions. Overall, the preferred portfolio is directionally consistent with broader statewide trends reflected in the CPUC's Reference System Plan.

This IRP is intended to inform planning and demonstrate conformance with state policy goals; it is not a procurement commitment or a binding contracting schedule. CPA's actual procurement decisions will continue to be made through CPA's established procurement and governance processes (including competitive solicitations and as needed market purchases) and will remain subject to CPA's Board and/or delegated authority approvals, market conditions, project deliverability, evolving regulatory requirements, and community priorities. Because there are material differences between certain CPUC-required planning assumptions and the assumptions and constraints CPA uses for day-to-day procurement execution, the specific buildout shown in this IRP may differ from CPA's eventual contracting outcomes; however, the portfolio provides a good-faith, analytically supported representation of CPA's long-term resource needs and contribution to statewide reliability and emissions objectives.

The remainder of this narrative is organized to follow the CPUC template. Section II (Study Design) summarizes CPA's modeling process, key inputs and assumptions, and any alternative assumptions used (including load shapes, market price forecasts, and candidate resource pricing). Section III (Study Results) presents the Preferred Conforming Portfolio results, including clean energy content, emissions outcomes, costs, and reliability performance. Section IV (Action Plan) describes CPA's procurement pathways and potential barriers, including how CPA intends to use competitive solicitations, innovation-focused procurement, and short-term products to manage gaps while maintaining flexibility. Section V (Lessons Learned) describes key insights from this cycle and identifies areas for future improvement in data, tools, and planning alignment.

# II. Study Design

This IRP study was designed to provide CPA, its Board, and management with a long-term resource plan that supports CPA's needs for renewable energy content, reduced greenhouse gas (GHG) emissions, resource diversity, reliability, and cost-effectiveness. The filing is also intended to demonstrate conformance with applicable regulatory and statutory requirements for the 2026 IRP cycle. CPA's IRP was prepared based on CPA's internal policy objectives and planning targets and informed by the CPUC's Final 2025 Inputs and Assumptions (I&A) for the 2024–2026 IRP cycle.

**Load Assignments for Each LSE**

CPA used the energy and peak demand load forecasts and behind-the-meter photovoltaic (BTM PV) values approved in the Administrative Law Judge (ALJ) Ruling dated January 16, 2026 as the basis for IRP modeling. Over the planning horizon, CPA's assigned annual retail sales and peak demand increase steadily, reflecting continued electrification and load growth; overall retail load growth is approximately 2.9% compound annual growth over the core study period. For modeling purposes, CPA represents load both at the retail meter and at the generation busbar by applying a consistent loss treatment, such that the busbar load reflects retail sales grossed up for transmission and distribution losses in a manner consistent with the CSP workbook. Figure 1 summarizes CPA's annual retail and busbar load forecast for select years.

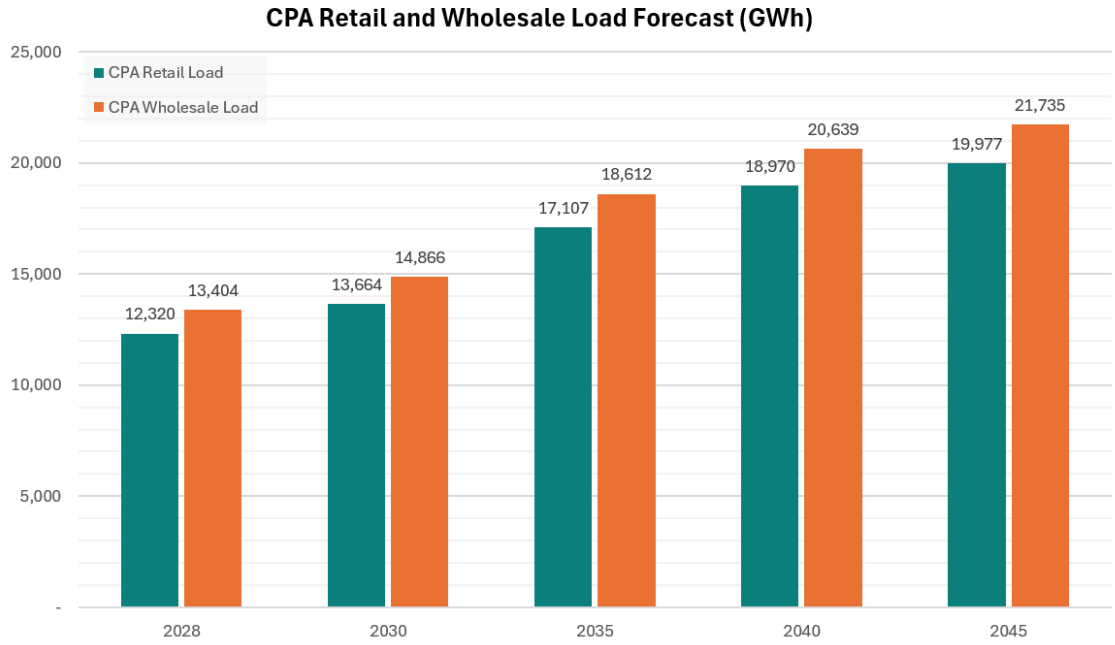



*Figure 1: CPA's Retail and Wholesale Load Forecast for the 2026 IRP*

BTM PV within CPA's service territory is also forecast to grow across the planning horizon, increasing both annual generation and installed capacity. Figure 2 summarizes the forecasted BTM PV energy and nameplate capacity trajectory used for CPA's assigned load and net load representation in this IRP.

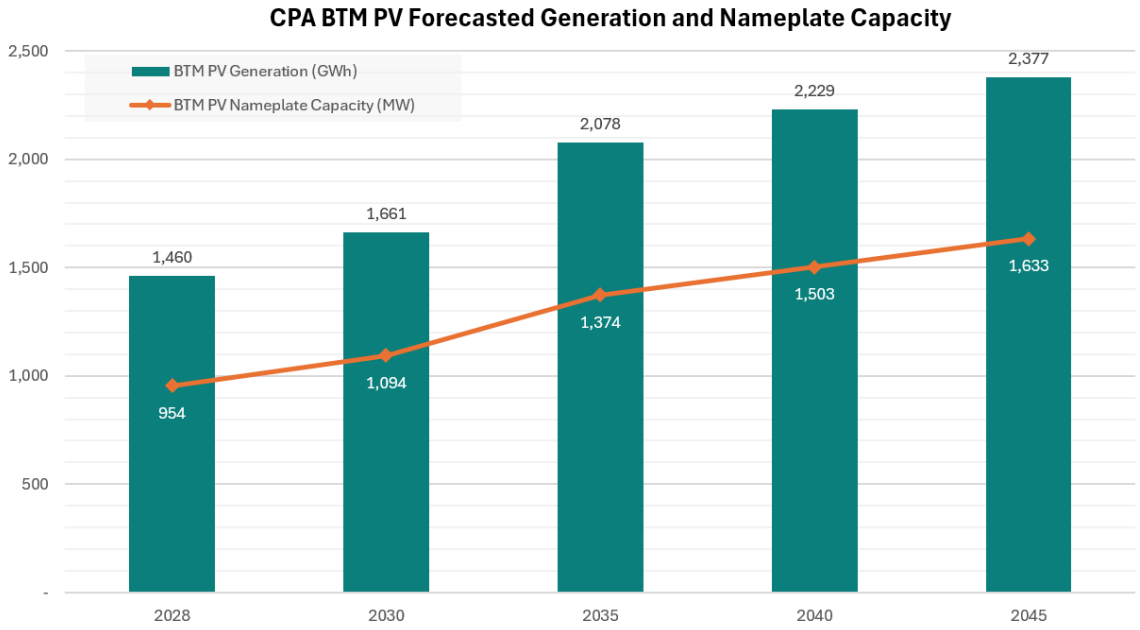



*Figure 2: BTM Solar PV Forecast: Annual Generation (GWh) and Installed Capacity (MW)*

For hourly modeling, CPA applied a custom hourly load shape in lieu of the default hourly profiles sourced from the 2024 Integrated Energy Policy Report (IEPR) Policy Scenario Demand Forecast. The custom hourly shape is derived from CPA's internal load forecast and is normalized to preserve the CPUC-assigned annual retail sales totals. This approach is intended to improve the representation of intra-day and seasonal patterns while maintaining consistency with the CPUC's planning total annual retail sales. Figure 3 compares: (1) the CPUC-assigned contribution to system peak derived from the CSP workbook using CPA's normalized profile, (2) CPA's reliability procurement need (RPN) as defined by the Resource Data Template (RDT), and (3) CPA's internal estimate of annual peak demand. Differences across these metrics are expected because the RPN reflects CPA's coincident contribution to CAISO system peak conditions, whereas the internal peak estimate reflects CPA's non-coincident peak within its service territory.

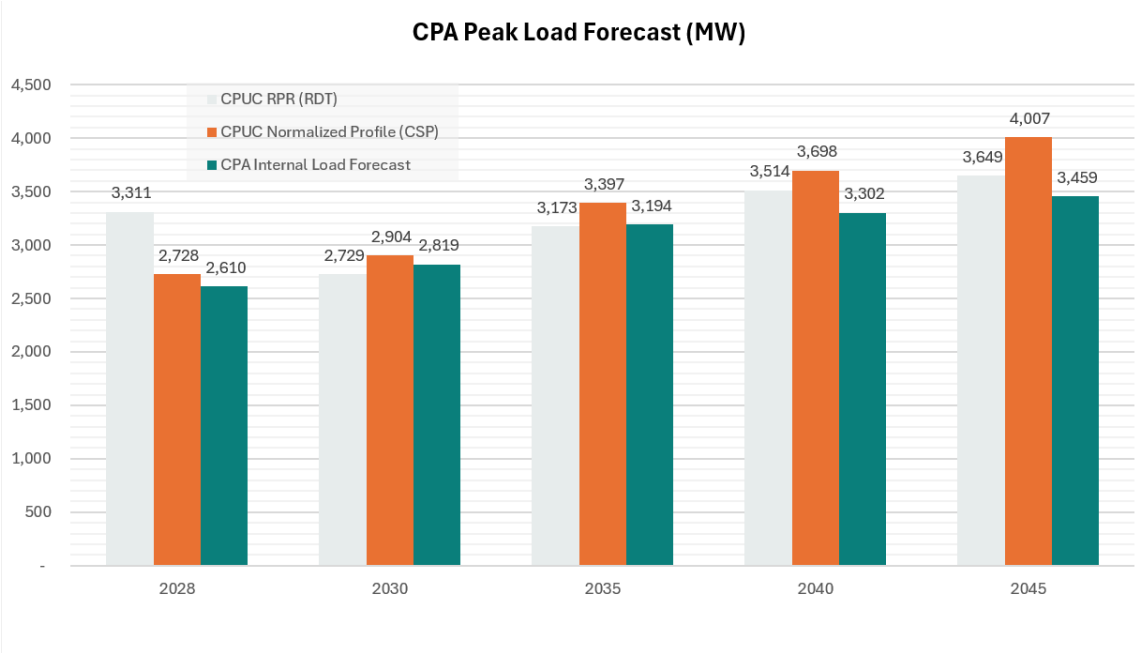



*Figure 3: CPA Assigned Annual Peak Load Forecast versus Internal*

**Required and Optional Portfolios**

CPA's IRP filing presents a unified strategy for satisfying the agency's energy and capacity obligations over the planning horizon, guided by CPA's goals and policies and the State's requirements for load-serving entities, including Renewable Portfolio Standard (RPS) and GHG obligations. CPA analyzed supply-side options over the 2027–2045 planning horizon consistent with the objectives described below.

CPA submits one Conforming Portfolio as its individual IRP filing for the 2026 cycle, thereby serving as its de facto Preferred Conforming Portfolio (PCP). The PCP satisfies all Commission-adopted Conforming Portfolio criteria, as detailed below. In addition, CPA has accounted for the costs and benefits of resources subject to the Cost Allocation Mechanism (CAM), consistent with Commission requirements.

CPA's PCP is consistent with the Commission-adopted Conforming Portfolio criteria by:

- Meeting the 2045 GHG emissions benchmark: achieving GHG emissions equal to or less than CPA's proportional share of the 2045 8 MMT (Million Metric Tons) target;
- Using the assigned load forecast: applying the energy and BTM PV forecasts assigned by the CPUC per the January 16, 2026, ALJ ruling in CPUC Rulemaking R.25-06-019 (ALJ Rulemaking);
- Meeting reliability needs in all years, except for 2026 due to the non-inclusion of Diablo Canyon[1]: ensuring the portfolio's perfect-capacity-equivalent MW meets or exceeds CPA's assigned reliability procurement need (RPN) in each planning year;

[1] Pursuant to Public Utilities Code Sec. 454.52 (f) CPA did not include energy, capacity, or any attribute from Diablo Canyon Unit 1 or 2 beyond August 26, 2025

- Maintaining proper load shapes in the CSP Calculator: keeping total annual energy consistent with the assigned load forecast, with all "Demand Inputs" tab checks reporting "TRUE";
- Using proper custom resource shapes: following CPUC formatting requirements for any custom production profiles, with all "Supply Inputs" tab checks reporting "TRUE";
- Using standard inputs and assumptions: applying inputs and assumptions from the 2025–2026 Transmission Planning Process (TPP) Portfolio (with updates), with any deviations from CPUC defaults identified and justified; and
- Completing all filing documents: submitting fully completed RDT, CSP calculator, and narrative template in accordance with the CPUC's completeness definition.

**GHG Emissions Benchmark**

CPA's 2045 GHG Emissions Benchmark was established via the ALJ Ruling. The benchmark reflects the electric-sector planning target methodology applied in the prior IRP cycle and is consistent with the California Air Resources Board's 2022 Climate Change Scoping Plan for Achieving Carbon Neutrality. CPA used the CPUC's Clean System Power (CSP) methodology and CSP Calculator Tool to conduct GHG accounting and determine the emissions associated with CPA's Preferred Conforming Portfolio.

To maintain consistency with CSP accounting, CPA's portfolio optimization and emissions evaluation reflect key CSP concepts, including: the application of hourly system power GHG emission intensities, the treatment of hours in which system power is not on the margin (with associated non-displaceable emissions allocated on a pro rata basis), and the ability for portfolios to receive emissions reduction credit when generating excess GHG-free energy during hours in which system power is on the margin. CPA's milestone-year benchmark values and portfolio results are summarized in Table 1. Table 1 also reflects administratively assigned emissions elements embedded in the CSP framework, including in-front-of-meter combined heat and power (IFM CHP) allocations and non-displaceable system power emissions, as described in the CSP workbook. While behind-the-meter CHP emissions are not directly represented in the CSP calculator, the CPUC accounts for those emissions at the system level during development of the Preferred System Plan.

*Table 1: CSP Portfolio GHG Emissions by Category (MMT/yr)*

| Emission Metric | 2028 | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|---|
| IFM CHP | 0.253 | 0.239 | 0.247 | 0 | 0 |
| System Power | 1.289 | 1.001 | (0.104) | 0.242 | 0.123 |
| Total Emissions | 1.542 | 1.240 | 0.143 | 0.242 | 0.123 |

## a. Objectives

CPA's IRP is designed to guide CPA's Board, management, and stakeholders in identifying a Preferred Conforming Portfolio that maintains reliability and affordability while advancing GHG reductions over the planning horizon. The IRP also supports the Commission's statewide planning by demonstrating how CPA's portfolio contributes to California's reliability and policy objectives using the Commission's required inputs, templates, and emissions accounting approach.

CPA's portfolio development reflects Board and stakeholder input on resource preferences, diversity, risk management, and cost-effectiveness, and is designed to comply with applicable statutory and regulatory requirements governing load-serving entities, including CCAs. In addition to meeting statewide minimum requirements, CPA's planning reflects locally adopted objectives—particularly above-compliance voluntary renewable procurement, lower portfolio emissions than the incumbent investor-owned utility, and a focus on minimizing localized impacts to Disadvantaged Communities (DACs).

CPA's IRP methodology and Preferred Conforming Portfolio are intended to achieve the following objectives:

- **Meet statutory IRP planning requirements applicable to CCAs**, including demonstrating that CPA's plan addresses the requirements of *Public Utilities Code Section 454.52(a)(1)* (and related IRP statutes governing plan development and Commission review/certification).
- **Satisfy Commission specifications for a Conforming Portfolio**, including use of the Commission-assigned load forecast and conformity with required filing tools and assumptions.
- **Demonstrate portfolio conformance with CPA's CPUC-assigned GHG Emissions Benchmarks**, using the Commission's required Clean System Power (CSP) methodology and calculator (with benchmark values presented in Table 1).
- **Demonstrate progress toward meeting or exceeding Renewable Portfolio Standard (RPS) and SB 100 goals**, including CPA's approach to maintaining compliance while reflecting customer-driven renewable energy demand.
- **Demonstrate contribution to system reliability and satisfaction of Resource Adequacy (RA) needs**, including showing that the portfolio can meet reliability needs across the planning horizon through a feasible mix of contracted, planned, and market resources.

Beyond the state's minimum renewable procurement requirements, CPA has additional renewable energy procurement requirements through CPA's product offerings: Lean Power (a minimum of 40 percent clean energy from a mix of renewables and zero-carbon hydroelectric power), Clean Power (a minimum of 50 percent clean energy), and 100% Green Power (100 percent renewable energy). Each of CPA's 38 communities selects a preferred energy option for their individual cities or counties (a "default product") and then individual customers can choose which product suits their needs. Based on these community selections and individual customer choices, approximately two-thirds of CPA's customers receive the 100% Green Power product.

Both the Lean Power and Clean Power tiers include escalating annual renewable and/or zero-carbon energy content requirements over the planning horizon, which drives a progressively cleaner overall portfolio. Across the planning horizon, CPA's retail mix remains relatively stable, with approximately 67 percent of retail load served under 100% Green Power, 16 percent under Clean Power, and 17 percent under Lean Power. As a result of this voluntary procurement, CPA expects to meet or exceed SB 100 renewable targets ahead of the 2030 RPS compliance deadline.

Consistent with CPA's Joint Powers Agreement, CPA has a goal of achieving overall lower GHG emissions than the local IOU. To support that objective, CPA's planning includes procurement of non-RPS carbon-free resources, including existing large hydroelectric generation, in addition to renewable procurement undertaken to serve customer demand and meet compliance obligations. The assumptions and treatment of this procurement are described in more detail in the Methodology section.

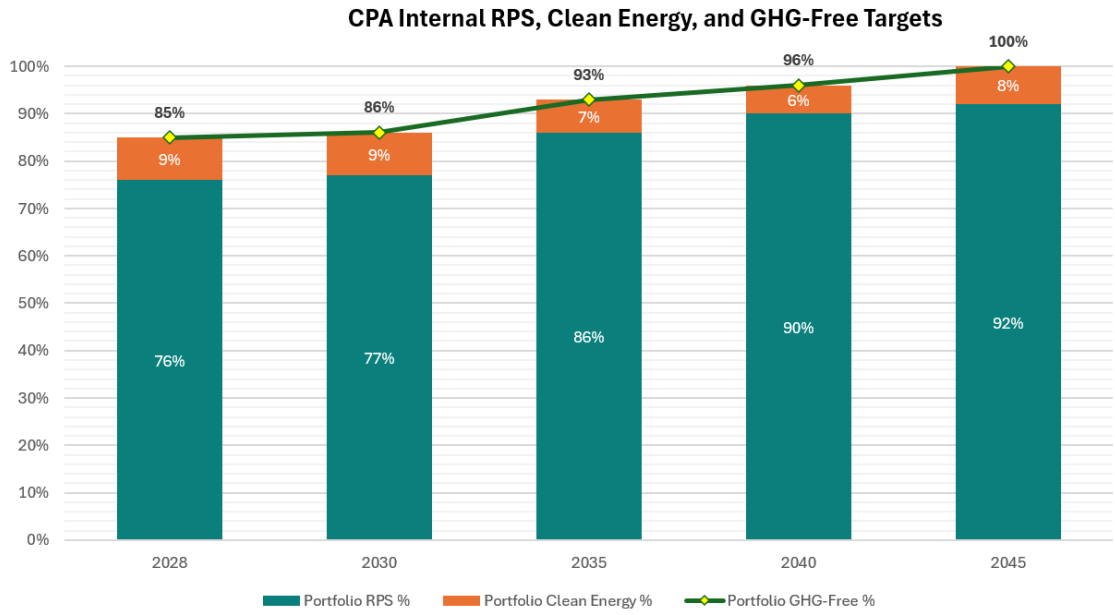



*Figure 4*: CPA Internal Portfolio RPS, Clean Energy, and GHG-Free Targets by Year (% of Retail Load)

Figure 4 presents CPA's internal RPS, clean energy, and GHG-free targets as a percentage of retail load across the planning horizon. CPA also considered community impacts in selecting its Preferred Conforming Portfolio, including prioritizing portfolios that minimize negative impacts and emphasize benefits for DACs, and that reduce procurement and market risks through long-term contracting for renewable resources at fixed prices.

## b. Methodology

This section provides an overview of the data, analytical tools, and methods CPA used to assess resource portfolio performance in this IRP.

### i. Modeling Tool(s)

For the 2026 IRP cycle, CPA used Energy Exemplar's PLEXOS® production cost modeling software (version 11 R6) to perform its portfolio optimization modeling exercise. PLEXOS® is a chronological unit commitment model that employs a mixed integer linear programming (MIP) approach to simulate the economic dispatch of power plants while observing real-world operational constraints including emission reduction targets, plant operating limits, and renewable energy availability. PLEXOS® has an integrated Long-Term Plan (LT Plan) feature that produces a resource expansion plan given resource options and constraints around those options. The full set of standard operational and cost parameters for new and existing resources is considered in the LT Plan, providing a robust framework from which to evaluate different technologies with different operational (intermittent vs. baseload) cost and incentive profiles. For CPA's 2026 IRP, the constraints applied in the LT Plan include annual and cumulative build limits for new resources, maximum allowed hourly market purchases and sales, GHG reduction targets, and minimum RPS and clean energy generation volumes. The PLEXOS® LT Plan module determines optimal investment decisions over the IRP planning horizon by minimizing the net present value (NPV) of the combined portfolio production cost and capital investment cost, subject to portfolio operational and investment constraints, to identify the least-cost resource portfolio.

### ii. Modeling Approach

Figure 5 depicts CPA's regional zonal model topology, spanning three regions: the CPA load zone, the CAISO market, and an Attributes region. CPA's retail load settles at the Southern California load zone (SCE_DLAP). CPA's generators and battery storage located in Southern California are defined at the Supply_SP15 node and settle against the SP15 trading hub, while generators and battery storage in Northern California are defined at the Supply_NP15 node and settle against the NP15 trading hub. This two-zone structure enables CPA to account for forecasted price congestion between the northern and southern parts of the state along the Path 26/Path 15 corridor, a key transmission interface connecting Pacific Gas and Electric (PG&E) to Southern California Edison in the south and a common source of inter-zonal price differences. The Attributes region contains supply nodes for GHG-free attributes and renewable energy certificates, which are decoupled from CPA's physical energy position and used solely to satisfy clean energy requirements under CPUC mandates and CPA's own procurement commitments.

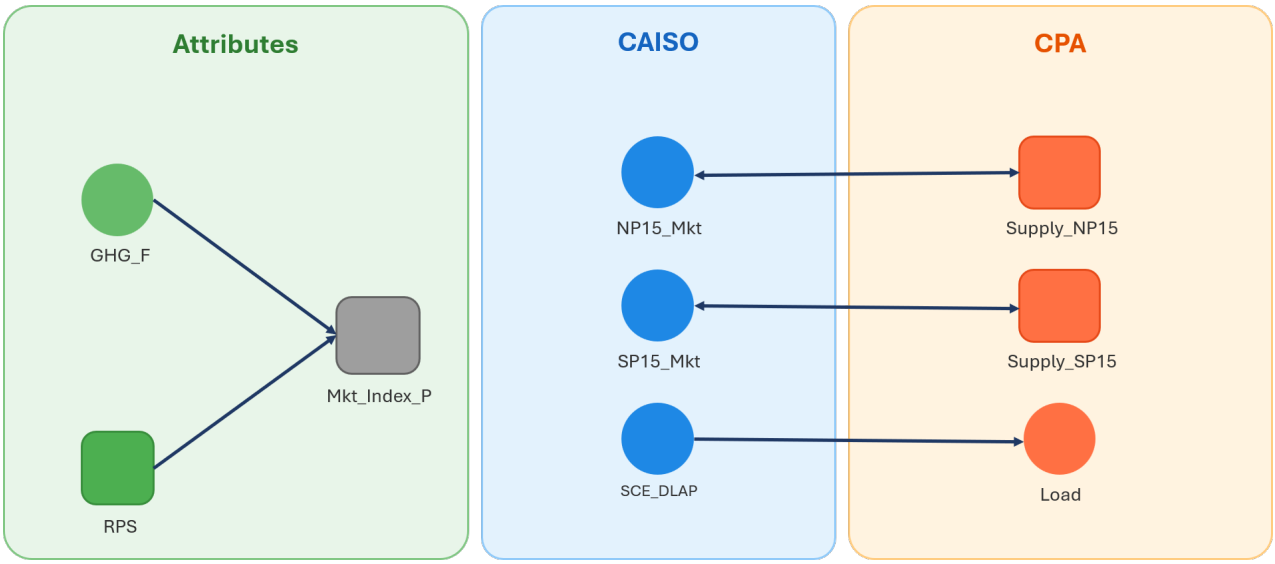



*Figure 5:* Three-Region Model Topology for CPA's Portfolio Optimization Framework

The CPUC's preferred system-level planning tools are RESOLVE for capacity expansion and SERVM for reliability assessments. CPA's 2026 IRP employs a two-stage modeling process to develop its PCP that is structurally analogous to this pairing. The key distinction between CPA's portfolio optimization planning workflow and the CPUC's is the set of loads and resources of interest. The CPUC is performing planning at the CAISO system level, accounting for all LSEs and direct access organizations. CPA's modeling is designed for an individual LSE and reflects CPA's specific set of loads and resources and the corresponding net position with the market. Stage 1, analogous to RESOLVE, uses the PLEXOS LT Plan to identify cost-optimal resource additions across the planning horizon using a sampled set of operating days; Stage 2, analogous to SERVM, uses the PLEXOS MT-ST Schedule to apply a full 8,760-hour commit-and-dispatch simulation for select planning years to capture commitment and dispatch decisions at an hourly resolution.

**Error! Reference source not found.** provides a summary of CPA's two-stage portfolio optimization process. Stage 1 runs across the full planning horizon, which spans 2027–2045.[2] In each investment-decision year, the model selects the type, amount, timing, and approximate location of new resources to minimize total cost while satisfying all applicable planning constraints. Stage 1 represents time at reduced resolution (one sampled representative week per month), keeping the multi-year optimization computationally tractable.

[2] Because modeling commenced in Q1 2026, CPA's horizon for its internal modeling started in 2027.

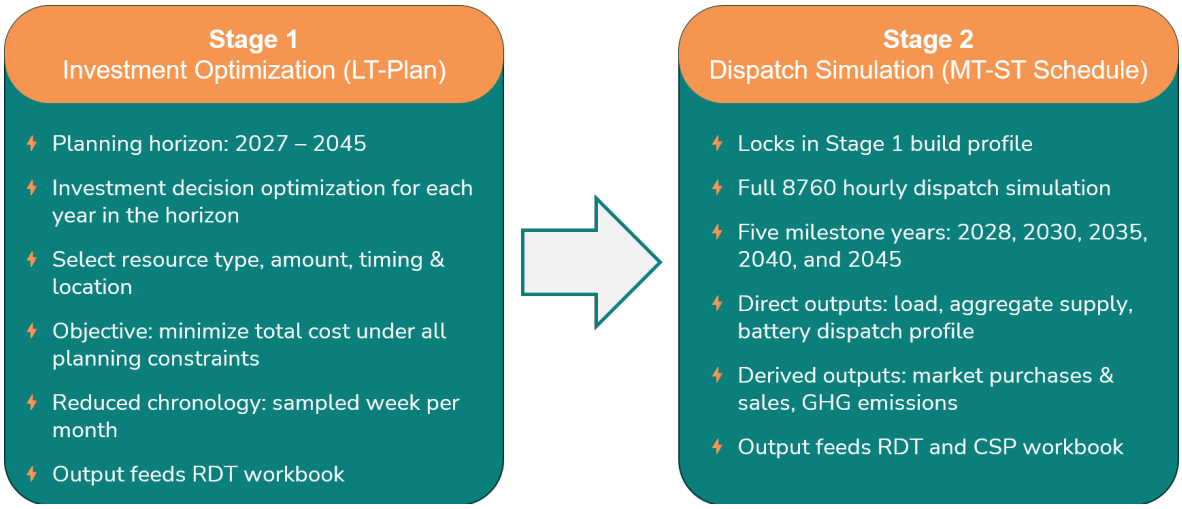



*Figure 6: CPA Two-Stage Portfolio Optimization Process*

After Stage 1 completes its investment optimization, Stage 2 performs an 8,760-hour full dispatch simulation of CPA's total portfolio, including both existing power purchase agreements (PPAs) and those selected during Stage 1. Unlike Stage 1, Stage 2 performs these grid simulations for a select number of years in the planning horizon. To optimize the custom profiles for storage dispatch, both stand-alone and hybrid, CPA simulated the five years modeled in the CSP workbook during Stage 2. Other key outputs of Stage 2 include CPA's net market position (positive when CPA is net long and sells excess supply to the market; negative when CPA is short and purchases from the market), economic curtailments, and forecasted GHG emissions. The market model uses hourly energy price forecasts developed using a third-party market forecast from Ascend Analytics, which is widely used in the industry for market intelligence and price forecasts. To ensure near-term prices reflect observable market expectations, CPA aligns the forecast to the latest tradable forward quotes for NP15 and SP15: the first three years use market curves sourced from ICE (Intercontinental Exchange), after which prices are blended over a two-year transition period into Ascend's longer-term fundamental CAISO forecast. This approach preserves near-term market realism while maintaining a consistent long-term fundamental view for portfolio optimization. Hourly SCE_DLAP prices are modeled consistently with the zonal topology and hub forecasts, reflecting intra-CAISO congestion and basis differentials between NP15, SP15, and SCE_DLAP.

After completing both modeling stages, CPA enters its portfolio into the RDT's unique contracts tab to verify that all applicable reliability planning constraints are satisfied. Specifically, the aggregate perfect-capacity-equivalent MW of all qualifying resources in CPA's portfolio (calculated as each resource's nameplate capacity multiplied by its marginal effective load-carrying capability, or "ELCC") must equal to or exceed CPA's assigned RPN in every planning year through 2045. Only contracts designated as "EnergyCapacity" or "CapacityOnly" in the RDT count toward this requirement; energy-only and attribute-only resources are excluded. Qualifying contracts must also satisfy a delivery window requirement: the contract start date must be on or before June 1 of the applicable planning year, and the contract end date must be on or after October 1 of that year. The reliability contribution of BTM solar was netted out of the reliability constraint applied in Stage 1, preserving the credit without requiring BTM solar to be modeled as an explicit candidate resource. This treatment was adopted for computational efficiency.

After populating the RDT and verifying that all reliability planning requirements are satisfied, CPA transfers the values from the CSPReportSheet tab in the RDT into the CSP workbook, per CPUC filing requirements. Within the CSP workbook, CPA applies its custom inputs for load and storage dispatch. Together, these inputs drive the portfolio's net GHG emissions calculation, covering both native emissions from CPA's bundled PPAs and GHG emissions associated with net market purchases of system power. As previously discussed, the model's load forecast directly accounts for the impacts of BTM solar.

**Inputs and Assumptions**

CPA's 2026 IRP inputs and assumptions are broadly consistent with those published in the CPUC's 2025–2026 Integrated Resource Planning Inputs and Assumptions document. Specifically, CPA applied the same candidate resource technology types (drawing from a subset of the CPUC's RESOLVE candidate resources, as listed in Table 2), ELCC values, resource operational specifications, statewide mandatory minimum RPS and clean energy requirements, and GHG decarbonization targets. Where CPA's assumptions deviate from the CPUC's published defaults, those deviations are identified and justified in the Alternative Assumptions section.

**Contracted Resources**

CPA's generation supply consists of a mix of geothermal, hydroelectric, wind, solar PV, and battery storage resources. To date, CPA has executed dozens of long-term power purchase agreements (PPAs). Table 2 presents a current list of CPA's signed PPAs, including resource type, status, PPA start date, and contracted capacity. CPA's executed PPAs are provided in the Resource Data Template (RDT) and are accounted for in both phases of the PLEXOS optimization process.

*Table 2: CPA Signed PPAs*

| Project | Resource Type | Status | PPA Start Date | Term (Years) | Renewable MWs | Storage MWs |
|---|---|---|---|---|---|---|
| Arica | Solar + Battery | Online | 4/23/2024 | 15 | 93.5 | 71 |
| Arlington | Solar + Battery | Online | 3/21/2022 | 17 | 233 | 132 |
| Cape 18 | Geothermal | Development | 6/1/2028 | 15 | 18 | |
| Cape Station | Geothermal | Development | 6/1/2028 | 15 | 30 | |
| Carson 1 | Solar | Online | 2/24/2026 | 20 | 0.68 | |
| Commerce 4 | Solar | Online | 1/26/2026 | 20 | 1.24 | |
| Daggett 2 | Solar + Battery | Online | 12/8/2023 | 15 | 65 | 52 |
| Daggett 3 | Solar + Battery | Online | 11/17/2023 | 15 | 123 | 61.5 |
| Denali | Storage | Development | 12/29/2028 | 20 | | 93.1 |
| Desert Quartzite | Solar + Battery | Online | 12/20/2024 | 20 | 300 | 150 |
| Dominguez | Solar | Online | 8/12/2025 | 15 | 0.96 | |
| Eaves 1 | Solar | Development | 12/1/2026 | 20 | 0.68 | |
| Eaves 3 | Solar | Development | 12/1/2026 | 20 | 0.67 | |
| El Segundo | Solar | Online | 7/29/2025 | 15 | 0.64 | |
| Elkhorn | Solar | Development | 12/31/2027 | 20 | 4.99 | |
| Estrella | Solar + Battery | Online | 12/31/2023 | 16 | 56 | 28 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Fillmore | Solar | Development | 12/31/2028 | 20 | 2.46 | |
| Geysers | Geothermal | Online | 1/1/2022 | 15 | 50 | |
| Geysers (100MW) | Geothermal | Planned Existing | 6/1/2027 | 10 | 100 | |
| Geysers (18MW) | Geothermal | Online | 6/1/2026 | 20 | 18 | |
| Golden Fields | Solar | Online | 12/21/2020 | 15 | 40 | |
| Heber | Geothermal | Online | 1/1/2022 | 15 | 14 | |
| High Desert | Solar + Battery | Online | 12/17/2021 | 15 | 100 | 50 |
| Isabella | Hydro | Online | 12/8/2020 | 10 | 11.95 | |
| Kaweah | Hydro | Online | 6/16/2020 | 10 | 20.09 | |
| Key BESS | Storage | Development | 6/1/2027 | 20 | | 190 |
| Key Long Duration | Storage | Development | 12/1/2026 | 15 | | 75 |
| Luna | Storage | Online | 8/3/2022 | 15 | | 100 |
| Pivot Beverly | Solar | Online | 2/28/2025 | 15 | 0.4 | |
| Pivot San Gabriel | Solar | Online | 2/28/2025 | 15 | 0.27 | |
| Resurgence | Solar + Battery | Online | 9/14/2023 | 21 | 48 | 40 |
| Rexford | Solar + Battery | Online | 2/21/2025 | 15 | 300 | 240 |
| Rexford II[3] | Solar + Battery | Development | 5/1/2029 | 20 | 200 | 200 |
| Road 232 Solar | Solar | Development | 12/31/2028 | 20 | 3 | |
| Sagebrush | Storage | Online | 11/1/2024 | 15 | | 40 |
| Sanborn | Storage | Online | 11/15/2021 | 15 | | 100 |
| Saticoy | Solar | Development | 12/31/2028 | 20 | 4 | |
| Solar Star 3 | Solar + Battery | Development | 10/1/2026 | 20 | 24 | 23 |
| Solar Star 4 | Solar + Battery | Development | 10/1/2026 | 20 | 24 | 23 |
| Southbay 20 | Solar | Online | 1/27/2026 | 20 | 1.32 | |
| Southbay 6 | Solar | Development | 12/1/2026 | 20 | 1.38 | |
| SunZia Wind North | Wind | Online | 5/26/2026 | 15 | 37.3 | |
| SunZia Wind North | Wind | Online | 5/20/2026 | 15 | 171.5 | |
| SunZia Wind South | Wind | Online | 5/26/2026 | 15 | 87.7 | |
| SunZia Wind South | Wind | Online | 5/20/2026 | 15 | 403.5 | |
| Voyager | Wind | Online | 12/28/2018 | 15 | 21.6 | |
| White Hills | Wind | Online | 12/15/2020 | 20 | 300 | |
| Wilmington 1 | Solar | Online | 9/25/2025 | 15 | 1.8 | |

**Candidate Resources**

Table 3 lists the candidate resources modeled in CPA's 2026 IRP. The candidate set includes a broad mix of technology types: biomass, geothermal, solar, lithium-ion battery storage (4-hour and 8-hour), and wind (with distinct options for in-state wind, out-of-state wind, and offshore wind). Any additional costs

[3] Rexford II was executed on July 6, 2026 (after the base portfolio inputs for this IRP's modeling were finalized) and therefore was not included in the modeled base portfolio for the Preferred Conforming Portfolio results. The contract is for 200 MW solar and 200 MW 4-hour storage and has a commercial operation date of May 2029. As such, it aligns with and may be interpreted as partially meeting the IRP-identified need for incremental solar and 4-hour storage in the early 2030s.

from transmission or network upgrades required to interconnect new resources are assumed to be incorporated into each technology's overall build cost and are not modeled as separate cost items.

*Table 3: CPA Candidate Resource Projects for the 2026 IRP*

| Resources | Technology | CSP Gen Profile |
|---|---|---|
| Biomass – CA | Biomass | CSP (Biomass) |
| Geothermal – NV to SCE | Geothermal | CSP (Geothermal) |
| Enhanced Geothermal System – NV to SCE | Geothermal | CSP (Geothermal) |
| Solar – PGE Kern | Solar | CSP (Solar New PG&E) |
| Solar – SCE Eastern | Solar | CSP (Solar New SCE SDG&E) |
| Solar – SCE Arizona | Solar | CSP (Solar New SCE SDG&E) |
| Onshore Wind – SCE Northern | In-State Wind | CSP (Wind New SCE SDG&E) |
| Onshore Wind – PGE Kern | In-State Wind | CSP (Wind New PG&E) |
| Onshore Wind - NM to SCE | Out-of-State Wind | CSP (Wind New Mexico) |
| Onshore Wind - WY to SCE | Out-of-State Wind | CSP (Wind Wyoming) |
| Offshore Wind – Morro Bay | Offshore Wind | CSP (Wind Offshore Morro Bay) |
| Li-ion Battery (4-hr) | Li-ion Battery | Storage Resource |
| Li-ion Battery (8-hr) | Li-ion Battery | Storage Resource |
| Li-ion Battery (12-hr) | Li-ion Battery | Storage Resource |
| Li-ion Battery (24-hr) | Li-ion Battery | Storage Resource |
| Li-ion Battery (100-hr) | Li-ion Battery | Storage Resource |

### iii. Alternative Assumptions

CPA made three focused departures from the Commission's statewide Inputs & Assumptions (I&A) used for this IRP cycle: (1) a custom normalized hourly load profile (in place of default IEPR-based hourly shapes), (2) third-party hourly market price forecasts (in place of price outputs derived from statewide production cost modeling), and (3) updated candidate resource pricing assumptions informed by CPA's solicitation results and recent market conditions. Each departure is described below, including the rationale, primary data sources, and how CPA preserved consistency with Commission-assigned load totals and conforming-portfolio requirements.

**Hourly Load Profile Shape**

CPA applied a custom, normalized hourly load shape in lieu of the Commission's default hourly profiles sourced from the 2024 IEPR Demand Forecast. The custom load shape was developed using a historical analysis of CPA's prior five years of retail sales and was designed to better represent CPA's observed intra-day and seasonal consumption patterns.

The hourly profile was normalized such that the total energy (the area under the hourly curve) matches CPA's CPUC-assigned annual retail sales for each planning year. As a result, CPA's total annual load forecast (MWh) used for portfolio evaluation is unchanged from the Commission-assigned value; only the intra-hour distribution differs from the default IEPR profile. CPA used this approach to improve the

realism of hourly dispatch, net load shapes, and the resulting valuation of flexible resources (including storage, demand-side resources, and firm clean capacity).

**Energy Market Assumptions**

CPA used third-party hourly energy price forecasts from Ascend Analytics in the 2026 IRP portfolio optimization and dispatch analysis. The forecast covers the three price nodes used in CPA's market representation: NP15, SP15, and SCE DLAP. CPA used node-level hourly prices to better reflect locational differences in market conditions that affect dispatch economics, storage arbitrage value, and net procurement costs.

To align near-term modeled economics with observable market information, CPA anchored the near-term portion of the forecast to tradable forward curves for NP15 and SP15, and blended those curves into Ascend's longer-term fundamental CAISO forecast. This blended approach is intended to improve consistency with near-term market pricing while maintaining a coherent long-run price signal for investment decisions across the planning horizon.

Figures 7 through 9 present representative month-hour price patterns (January, April, July, and October) across all three nodes for select years.

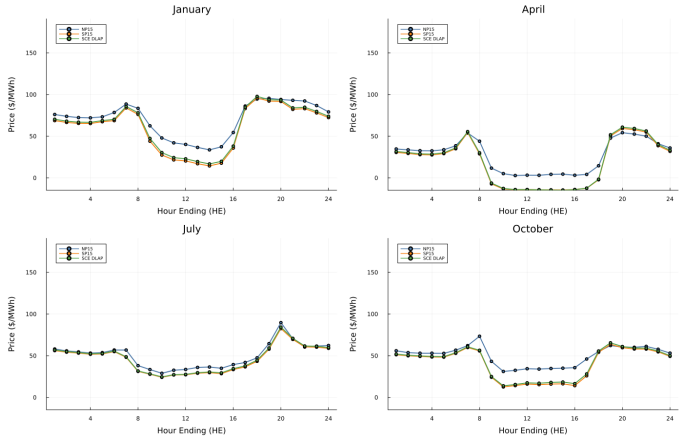



*Figure 7: Average Month-Hour Energy Price Forecast by Node (January, April, July, October) - 2028*

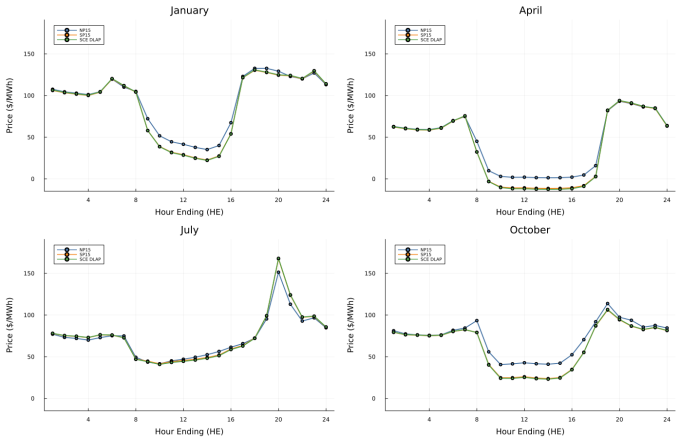



*Figure 8: Average Month-Hour Energy Price Forecast by Node (January, April, July, October) - 2035*

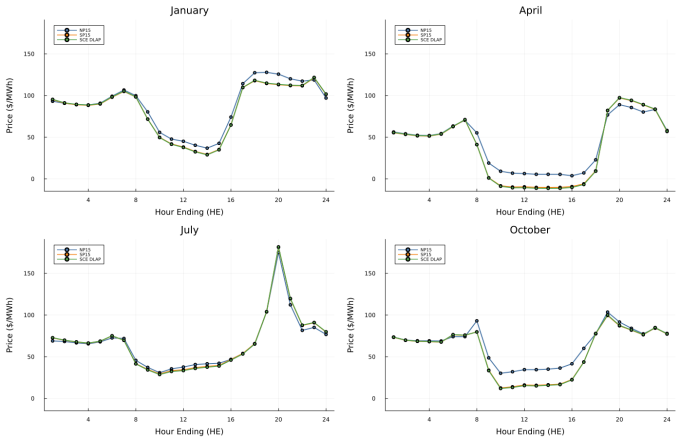



*Figure 9: Average Month-Hour Energy Price Forecast by Node (January, April, July, October) - 2045*

**Candidate Resources PPA Pricing Assumptions**

CPA developed candidate resource pricing assumptions using an internal forecast that reflects the most recent price signals available through CPA's procurement activity and prevailing market conditions. Candidate PPA pricing inputs were informed by recent bid and offer information from CPA's competitive solicitations (including RFO results and market terms observed through active procurement). CPA then projected these prices forward using technology cost trajectories from the NREL Annual Technology Baseline (ATB) to reflect expected year-over-year changes in capital costs and fixed operating costs.

Where relevant to the commercial pricing CPA expects to face, CPA incorporated policy-related adjustments reflecting differences in expected federal incentive impacts (for example, tax credit availability and monetization considerations for renewables and storage). This approach is broadly consistent in structure with the Commission's I&A framework, but updates and calibrates candidate pricing to reflect more recent and procurement-specific market information than is captured in statewide inputs. The purpose of this departure is to improve the realism of modeled costs and resulting portfolio selection by the capacity expansion model.

# III. Study Results

## a. Conforming and Alternative Portfolios

CPA is submitting one Conforming Portfolio that balances procurement flexibility between short-term and long-term contracts with resource diversity and minimizes costs to ratepayers, while meeting regulatory requirements for clean energy and reliability and achieving emissions that are less than CPA's proportional share of the 8 MMT by 2045 GHG targets. The Conforming Portfolio also meets CPA's internal RPS and GHG-Free targets that are more aggressive than state requirement. Figure 10 below represents CPA's cumulative long-term resource mix for the Preferred Conforming Portfolio.

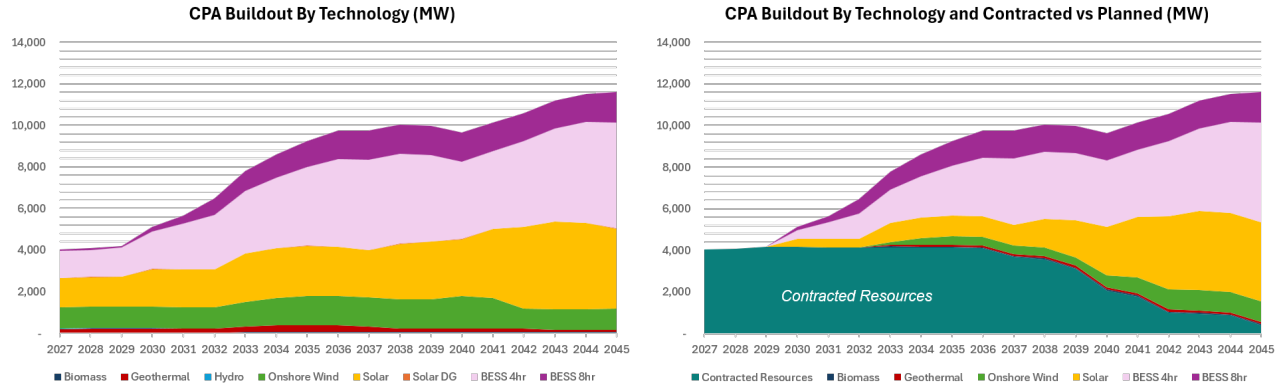



*Figure 10: CPA Conforming Portfolio Long-Term Contracts Resource Mix*

The portfolio reflects a diverse mix of renewable and storage resources and takes advantage of CPA's commitment to contracting for new build resources. The ratios of solar, wind, geothermal, and storage resources are a reflection of their availability in the market. Figure 11 below shows the annual incremental build relative to CPA-contracted resources. Most PPAs additions are from solar and storage resources. Wind, geothermal, and biomass help CPA meet its resource adequacy requirements and RPS targets in the mid-2030s. Contracted PPAs that end by the 2040s are replaced with similar technologies.

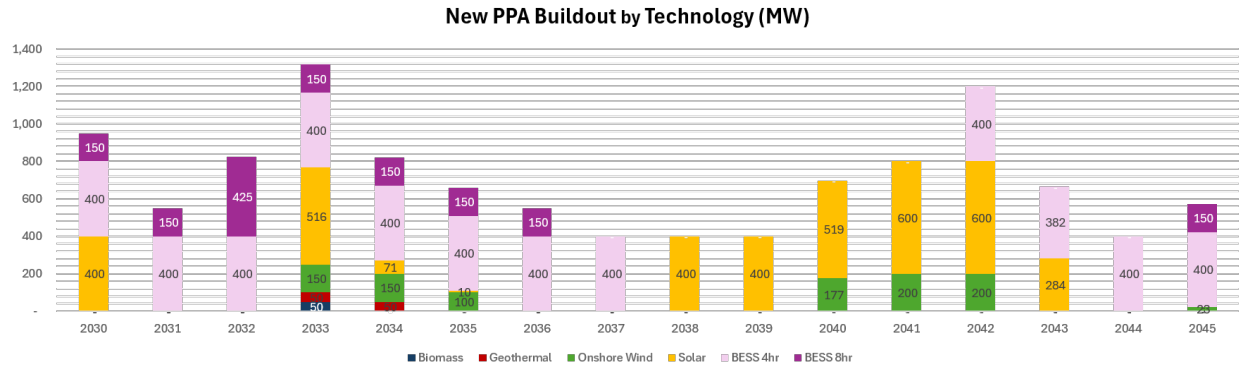



*Figure 11: Incremental Build of Long-term Contracts (relative to CPA-contracted resources)*

During development of this IRP, CPA executed a solar-plus-storage contract for Rexford II (executed July 6, 2026) with a commercial operation date of May 2029, totaling 200 MW solar and 200 MW 4-hour storage. Because the contract was executed late in the IRP development timeline and after the base portfolio inputs were finalized for modeling, it was not reflected in the modeled base portfolio. The project aligns closely with the IRP-identified resource need and can be interpreted as partially satisfying the modeled 2030 solar and 4-hour storage buildout.

Table 4 below summarizes the annual cumulative nameplate capacities of CPA's Conforming Portfolio aggregated by technology and contract status. CPA is expecting to bring a significant number of new clean resources online, more than doubling its currently contracted capacities by 2045.

*Table 4: Summary of Conforming Portfolio in Cumulative Nameplate MW*

| 8 MMT Case | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Contracted Resources** | **4,028** | **4,081** | **4,184** | **4,164** | **4,152** | **4,427** | **4,427** | **4,405** | **4,405** | **4,365** | **3,951** | **3,851** | **3,385** | **2,351** | **2,051** | **1,276** | **1,228** | **1,140** | **690** |
| Geothermal | 182 | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 166 | 66 | 66 | 66 | 66 | 66 | 18 | 18 | 18 |
| Hydro | 32 | 32 | 32 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Onshore Wind | 1,022 | 1,022 | 1,022 | 1,022 | 1,022 | 1,022 | 1,022 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 700 | 0 | 0 | 0 | 0 |
| Solar | 1,407 | 1,411 | 1,421 | 1,421 | 1,421 | 1,421 | 1,421 | 1,421 | 1,421 | 1,381 | 1,281 | 1,281 | 999 | 410 | 410 | 410 | 410 | 362 | 62 |
| Solar DG | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 6 | 6 | 6 | 6 | 6 | 6 |
| BESS 4hr | 1,301 | 1,301 | 1,394 | 1,394 | 1,394 | 1,394 | 1,394 | 1,394 | 1,394 | 1,394 | 1,144 | 1,144 | 959 | 519 | 519 | 519 | 519 | 479 | 329 |
| BESS 8hr | 75 | 75 | 75 | 75 | 75 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 275 | 275 | 275 | 275 |
| **Planned Resources** | **0** | **0** | **0** | **950** | **1,500** | **2,050** | **3,366** | **4,187** | **4,847** | **5,397** | **5,797** | **6,197** | **6,597** | **7,294** | **8,094** | **9,294** | **9,959** | **10,359** | **10,932** |
| Biomass | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Geothermal | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Onshore Wind | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 300 | 400 | 400 | 400 | 400 | 400 | 577 | 777 | 977 | 977 | 977 | 1,000 |
| Solar | 0 | 0 | 0 | 400 | 400 | 400 | 916 | 987 | 997 | 997 | 997 | 1,397 | 1,797 | 2,316 | 2,916 | 3,516 | 3,800 | 3,800 | 3,800 |
| BESS 4hr | 0 | 0 | 0 | 400 | 800 | 1,200 | 1,600 | 2,000 | 2,400 | 2,800 | 3,200 | 3,200 | 3,200 | 3,200 | 3,200 | 3,600 | 3,982 | 4,382 | 4,782 |
| BESS 8hr | 0 | 0 | 0 | 150 | 300 | 450 | 600 | 750 | 900 | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,200 |
| **Total** | **4,028** | **4,081** | **4,184** | **5,114** | **5,652** | **6,477** | **7,793** | **8,592** | **9,252** | **9,762** | **9,748** | **10,048** | **9,982** | **9,645** | **10,145** | **10,570** | **11,188** | **11,500** | **11,622** |

CPA's Preferred Conforming Portfolio is directionally consistent with the resource mix reflected in the 2025–2026 TPP Portfolio (presented in the 2026 CPUC Filing Requirements Modeling document) in that both rely on substantial additions of solar and storage supported by incremental clean firm resources and wind to meet reliability and emissions objectives. As shown in Table 5, the most significant variances are driven by two intentional tradeoffs in CPA's optimization: (1) storage duration mix and (2) the balance of in-state versus out-of-state wind. Relative to CPA's share of the TPP buildout, CPA's IRP selects materially higher volumes of 4-hour and 8-hour lithium-ion storage and does not select the location-constrained 12-hour storage additions shown in the TPP. This outcome reflects observed market dynamics and modeled operations: under current and expected CAISO price shapes (including the evolving duck curve), the incremental arbitrage and system value of 12-hour storage is often not sufficient to justify its higher cost relative to procuring a combination of 4-hour and 8-hour resources, which can capture a large share of net-peak value more economically. In addition, longer-duration (e.g., 8-hour/12-hour) storage technologies can exhibit lower round-trip efficiency than 4-hour systems, and under Slice-of-Day RA counting they can also realize lower effective RA value when charging sufficiency and hour-specific

availability constraints are applied, whereas multiple 4-hour resources can often provide more flexible, higher-counting capacity across critical hours.

*Table 5: Comparison of the CPA Preferred Conforming Portfolio to CPA's Load Share of the 25-26 TPP Buildout*

| | Share of 25-26 TPP Buildout | | | | CPA 2026 IRP | | | | Difference (IRP - Share of TPP) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2030 | 2035 | 2040 | 2045 | 2030 | 2035 | 2040 | 2045 | 2030 | 2035 | 2040 | 2045 |
| | 117 | 163 | 163 | 163 | 230 | 330 | 166 | 118 | 113 | 167 | 3 | (45) |
| | - | - | - | 36 | - | - | - | - | - | - | - | (36) |
| Geothermal | - | - | - | - | - | 50 | 50 | 50 | - | 50 | 50 | 50 |
| | 63 | 322 | 424 | 557 | 22 | - | - | - | (42) | (322) | (424) | (557) |
| Geothermal (Enhanced) | 269 | 358 | 807 | 970 | 1,000 | 1,400 | 1,577 | 1,000 | 731 | 1,042 | 770 | 30 |
| | - | - | - | - | - | - | - | - | - | - | - | - |
| Biomass | 1,372 | 2,728 | 3,336 | 4,222 | 1,821 | 2,418 | 2,727 | 3,862 | 449 | (310) | (609) | (360) |
| | 215 | 225 | 225 | 347 | 1,794 | 3,794 | 3,719 | 5,111 | 1,579 | 3,569 | 3,494 | 4,764 |
| In-State Wind | 312 | 715 | 715 | 1,077 | 225 | 1,250 | 1,400 | 1,475 | (87) | 535 | 685 | 398 |
| | 15 | 199 | 409 | 434 | - | - | - | - | (15) | (199) | (409) | (434) |
| Out-of-State Wind | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - |
| Offshore Wind | - | - | - | - | - | - | - | - | - | - | - | - |

The table also shows a shift away from in-state wind and toward out-of-state wind in CPA's IRP buildout relative to the TPP share. This variance is driven in part by current market dynamics: based on recent market solicitations, the availability of cost-competitive, developable new in-state wind has been very limited. At the same time, wind resources from regions such as New Mexico and Wyoming often provide higher complementary value to the California system (including improved alignment with net-peak and seasonal reliability needs) and can deliver higher capacity value relative to certain in-state wind profiles, making them attractive in a least-cost optimization that must meet reliability and emissions requirements. Additionally, the SunZia Transmission project and TransWest express, as discussed further in section IV. k, provide clearer signals of the resource's availability to LSEs. Overall, these differences reflect CPA's effort to use the same statewide planning framework while calibrating resource choices to market availability, operational value, and cost-effectiveness, resulting in a portfolio that generally aligns with TPP directions while optimizing key technology substitutions that reduce cost and maintain reliability.

## b. Preferred Conforming Portfolio

The above Conforming Portfolio is CPA's Preferred Conforming Portfolio for the 8 MMT GHG target. It is the most cost-effective option that meets internal targets and state mandates, given the inputs and assumptions provided. CPA's Conforming Portfolio is also consistent with each relevant statutory and administrative requirement stated in PU Code Section 454.52(a)(1), as follows:

A. *Meet the greenhouse gas emissions reduction targets*

The Preferred Conforming Portfolio achieves emission targets that are below the GHG emissions benchmarks set by the Commission, which are based on the GHG emission reduction targets set by the California Air Resources Board for the electricity sector.

CPA's Preferred Conforming Portfolio achieves emission targets that are below the GHG emissions benchmarks set by the Commission for every milestone year, including the outer years where the portfolio outperforms the 2045 benchmark. The results are illustrated in Table 6 below. This outcome is driven by

CPA's more aggressive internal RPS and GHG-Free targets, which bring additional renewables and storage online and reduce reliance on emissions-associated system power over time.

*Table 6: CPA Preferred Conforming Portfolio GHG Emissions Results*

| Target | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|
| CA State | 30 MMT | 25 MMT | 16 MMT | 8 MMT |
| CPA's Share | 1.243 MMT | 1.050 MMT | 0.860 MMT | 0.443 MMT |
| CPA Portfolio Results | 1.240 MMT | 0.143 MMT | 0.242 MMT | 0.123 MMT |

This "better-than-benchmark" performance is also supported by the portfolio's significant battery energy storage (BESS) buildout and operations. In the modeling, BESS dispatch is optimized using hourly emissions profiles, which tends to shift charging toward lower-emitting hours and discharge toward higher-emitting hours, reducing overall portfolio emissions while still supporting net-peak operations and reliability needs.

B. *Procure at least 60% eligible renewable energy resources*

Figure 12 and Figure 13 represent the RPS and GHG-Free content in the Conforming Portfolio, respectively. The CPA portfolio maintains RPS and GHG-Free energy content consistently above statewide requirements across the study horizon, reflecting CPA's procurement strategy and customer product mix that targets higher clean energy content than the statutory floor. Across both figures, solar is the largest contributor to delivered RPS and GHG-Free energy, with wind as the second-largest contributor, underscoring the portfolio's reliance on mature, cost-effective renewable technologies as the backbone of clean energy supply.

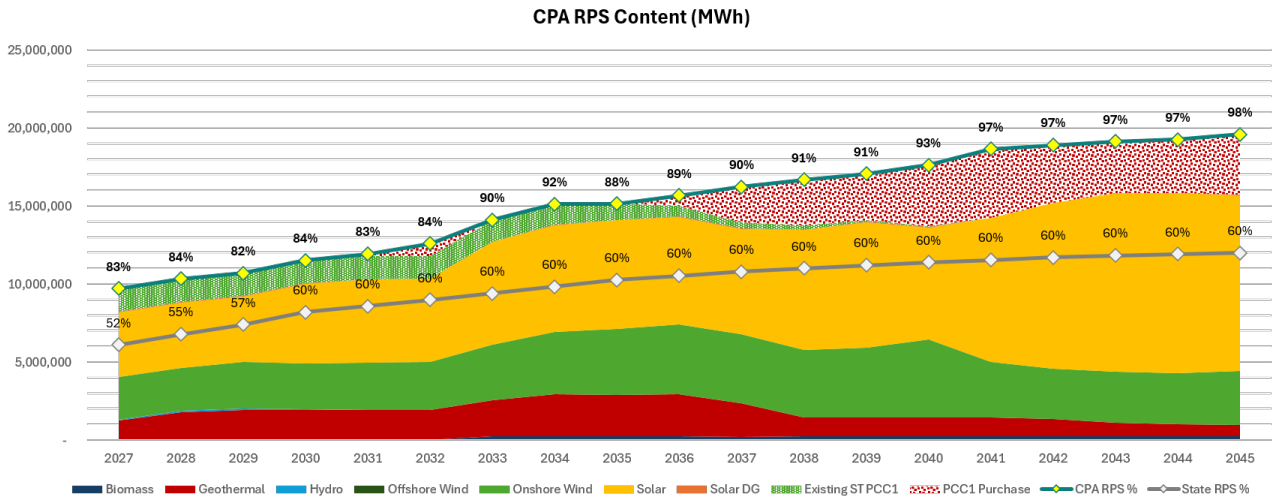



*Figure 12: Conforming Portfolio RPS Content*

The figures also show that CPA's portfolio is intentionally structured to balance long-term RPS contracts with short-term PCC1 REC and other GHG-Free purchases that are used to close any remaining gaps as

conditions change (e.g., load variability, fluctuating generation from contracts). Maintaining a small residual share served through market purchases preserves operational and procurement flexibility and acts as a hedge against sunk costs while keeping overall RPS and GHG-Free performance well above requirements.

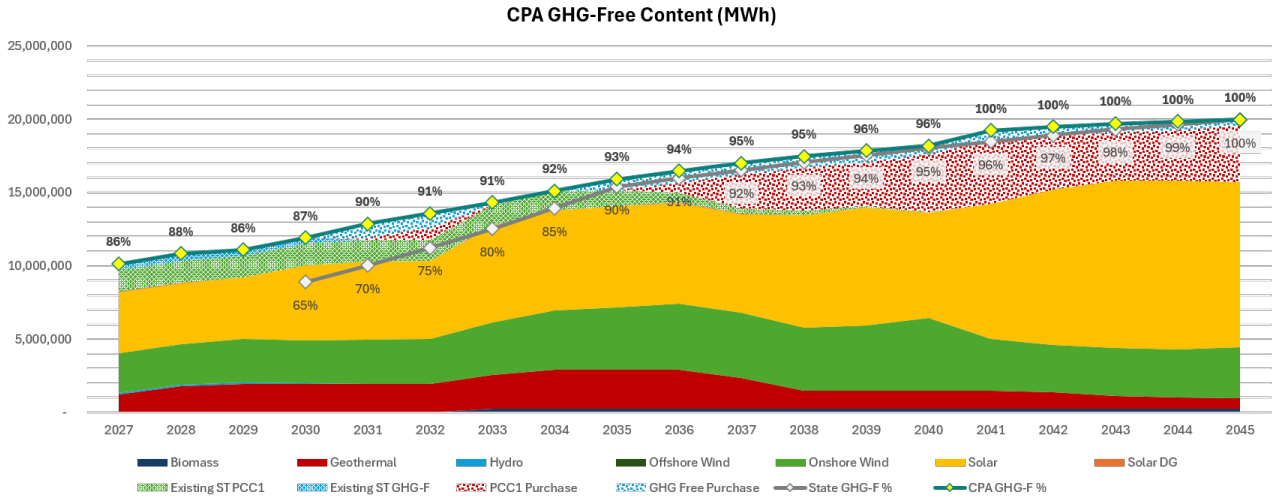



*Figure 13: Conforming Portfolio GHG Free Content*

C. *Enable each electrical corporation to fulfill its obligation to serve its customers at just and reasonable rates*

While this requirement does not apply to CPA as CPA is not an electrical corporation, CPA works to serve its customers at reasonable rates and minimize rate volatility by constructing a balanced and conservatively hedged power supply portfolio, building significant financial reserves and minimizing rate changes when possible. Total system costs for the 8 MMT Conforming Portfolio are comparable to CPA's current average costs, as described further in Section E (Cost and Rate Analysis). The steady projected portfolio costs indicate that CPA ratepayers can expect their rates to receive increasingly clean electricity service at stable rates.

D. *Minimize impacts on ratepayers' bills*

CPA's Preferred Conforming Portfolio meets the goal of minimizing impacts on ratepayers' bills by identifying a least-cost bulk power supply portfolio that is simultaneously optimized to achieve CPA's RPS and GHG-Free targets, satisfy state requirements for reliability and GHG emissions reductions, and minimize the cost to serve load over the planning horizon. This cost analysis reflects only the power supply components of serving CPA's retail load as a Community Choice Aggregator; the incumbent IOU remains responsible for transmission and distribution service to retail customers. Based on the portfolio optimization and associated cost outputs, the cost of procuring the resources in the Preferred Conforming Portfolio is forecasted to increase CPA's power supply costs at an average rate of 2.67% annually between 2028 and 2045, reflecting primarily forecast load growth and the need for incremental procurement at higher market prices than CPA's existing contracted portfolio. Additionally, CPA's portfolio accounting

includes the Resource Adequacy (RA) benefits of IOU resources that CPA customers support and are allocated to CPA through the Cost Allocation Mechanism (CAM).

E. *Ensure system and local reliability on both a near-term and long-term basis, including meeting the near-term and forecast long-term resource adequacy requirements*

CPA's Preferred Conforming Portfolio meets the requirement to ensure system and local reliability on both near-term and long-term basis, including meeting the CPUC-forecasted Resource Adequacy (RA) needs over the planning horizon. For this IRP, CPA assessed system reliability using the RA assumptions and accounting framework provided in the CPUC Resource Data Template. CPA's reliability procurement requirement (RPR) was calculated by applying CPA's share of load during critical hours to the CAISO's Reliability Procurement Need (RPN), and portfolio RA contributions were evaluated by applying the applicable Effective Load Carrying Capability (ELCC) values by resource type (including solar, wind, 4-hour storage, and 8-hour storage) to determine the portfolio's effective capacity position over time. Under this framework, the Preferred Conforming Portfolio meets CPA's modeled reliability needs through a combination of executed long-term contracts and targeted short-term RA purchases from existing resources, which provides flexibility to meet near-term RA requirements without locking in long-term reliability commitments from fossil resources. Additional details on the RA position are provided in Section F (System Reliability Analysis).

In addition to the ELCC-based assessment required for IRP planning, CPA also tested the portfolio under the Slice-of-Day RA framework accreditation methodology used for month-ahead/year-ahead RA compliance (while recognizing this is not an IRP requirement). This supplemental check indicates the portfolio is generally adequate across the planning horizon, but it also highlights that seasonal gaps can appear in certain summer or winter months under Slice-of-Day counting rules. These results reinforce the importance of aligning IRP planning accounting with compliance accounting used in the RA program and procurement orders, since differences in rules can lead to a portfolio that is either over-committed (increasing costs to customers) or short in specific critical months that may not be fully captured by an annual ELCC framework. A key driver of the difference is how storage is treated: Slice-of-Day counting requires charging sufficiency and hour-specific availability to count, whereas the IRP ELCC approach reflects a generalized capacity contribution as a percentage of nameplate, which may not fully reflect portfolio- and month-specific charging constraints.

F. *Ensure that at least 65% of RPS procurement is from long-term contracts*

Figure 14 below compares CPA's Preferred Conforming Portfolio long-term RPS content to the SB 350 minimum long-term contracting requirement of 65%. It shows that CPA's portfolio consistently exceeds the statutory floor across the planning horizon. In several years, CPA's long-term RPS content is more than double the SB 350 minimum, reflecting CPA's strategy to rely primarily on executed long-term renewable contracts to meet customer demand and compliance needs while reducing exposure to short-term market volatility. This sustained long-term RPS position also provides a buffer against year-to-year variability in load, generation profiles, and contract performance, while keeping only a limited residual need to be managed through short-term market activity.

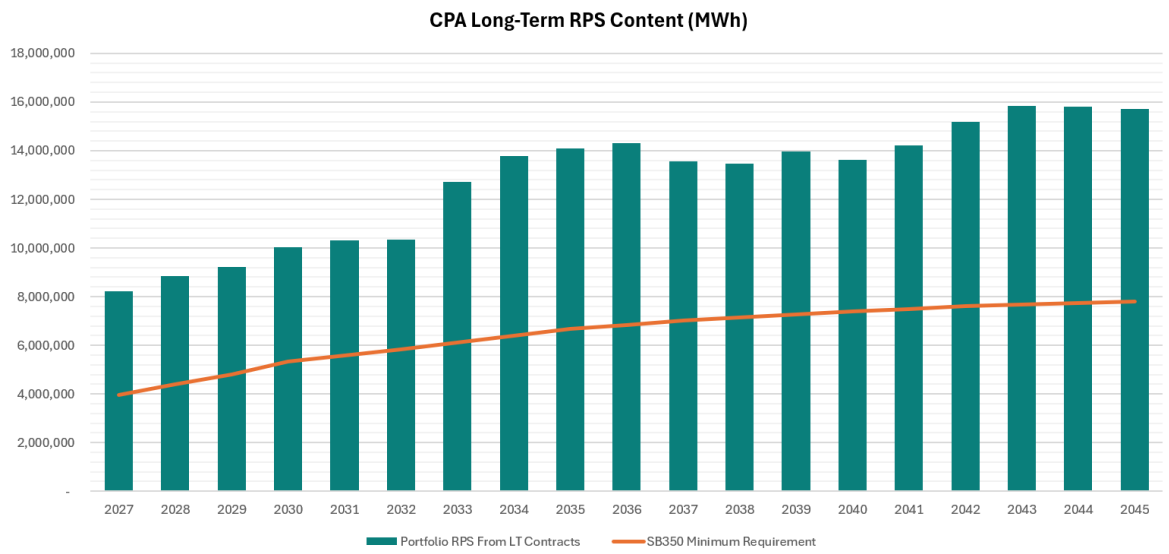



*Figure 14: CPA Preferred Conforming Portfolio Long-Term RPS Content Relative to SB350 Requirement*

### G. *Strengthen the diversity, sustainability, and resilience of the bulk transmission and distribution systems, and local communities*

CPA's Preferred Conforming Portfolio strengthens the diversity, sustainability, and resilience of the bulk power system and local communities by maintaining a balanced mix of resource types and procurement products that can perform across a wide range of operating conditions and grid needs. The portfolio and procurement strategy consider a broad set of candidate resource options, including utility-scale solar, onshore wind, offshore wind, geothermal, and biomass, paired with a range of energy storage durations (including 4-hour batteries and longer-duration storage options extending up to 100 hours) to support both net peak reliability needs and multi-hour or multi-day risk periods. In addition to physical supply resources, CPA maintains flexibility through a limited, targeted use of short-term PCC1 purchases, GHG-Free purchases, and Resource Adequacy (RA) purchases to manage near-term gaps, shape risk, and avoid locking customers into long-term commitments that could become misaligned with evolving reliability rules, technology performance, or market conditions.

CPA evaluates prospective resources with a focus on operational resilience and deliverability—such as hourly load-matching performance, congestion and deliverability risk, and how incremental additions interact with CPA's existing supply on an hourly basis over the full contract term. This approach supports a resource mix that is less exposed to single-technology performance risk and provides multiple pathways to maintain reliability while increasing clean energy content. To implement this diversified strategy, CPA is pursuing competitive solicitations that can bring forward both mature and emerging solutions. CPA's 2026 Clean Energy & Reliability Request for Offers (RFO) is designed to source a broad range of resources—including baseload renewables, intermittent renewables, and storage—that can contribute to clean energy goals and reliability needs over multiple time horizons. In parallel, CPA's 2026 Innovation Solicitation for Emerging Technologies is intended to identify and evaluate projects that may not fit

standard eligibility or evaluation structures in the primary clean energy RFO, supporting technology diversity and longer-term system resilience.

H. *Enhance distribution systems and demand-side energy management*

CPA's Preferred Conforming Portfolio meets the requirement of enhancing demand-side management. Based on CPA's Local Programs for Clean Energy Future Strategic Plan, which was developed through a community outreach process and subsequent Board direction, CPA plans to continue deploying programs that provide demand side energy management support as well as air pollution mitigation in Disadvantaged Communities ("DACs") within its territory, in the following three strategic program areas: resiliency and grid management, electrification, and local clean energy procurement.[4]

CPA actively supports EV charging infrastructure and management and distributed energy resource activities to meet its renewable energy goals. CPA is partnering with customers to utilize energy storage systems for demand response and/or reliability. In addition, CPA's customer programs, such as Power Response and Peak Management Pricing, incentivize residential, commercial and public agency customers to reduce their energy consumption during periods of grid stress and elevated wholesale energy prices.

I. *Minimize localized air pollutants and other greenhouse gas emissions, with early priority on disadvantaged communities*

CPA's Conforming Portfolio results in emissions lower than CPA's assigned benchmark. CPA does not procure electricity directly from any natural gas or other fossil resource power plants, rather any direct emissions are the result of system power purchases or administratively assigned emissions. CPA's Preferred Conforming Portfolio meets the requirement of minimizing localized air pollutants, with an emphasis on DACs. CPA's portfolio relies primarily on renewable generation for its energy supply and thus has low GHG and localized air pollutant emissions. As mentioned above, CPA also plans to deploy customer programs with an emphasis on DACs to further reduce localized air pollution in its service territory.

CPA currently administers several programs aimed at minimizing air pollutants and GHG emissions, see section IV. a and b for details on each program.

*J. Maintain a diverse portfolio of energy resources, which may include eligible energy resources procured by the Department of Water Resources.*

CPA's Preferred Conforming Portfolio maintains a diverse mix of energy resources, including both existing contracted resources and a broad set of candidate resources evaluated in the IRP modeling. While eligible resources procured through the Department of Water Resources (DWR) may contribute to statewide portfolio diversity over time, CPA did not force specific Assembly Bill (AB) 1373 DWR allocations into the base IRP portfolio used for this filing because the scope, timing, and availability of those resources remain

[4] *See* Section IV. a & b. for information regarding specific CPA programs

uncertain. Given that the IRP results depend heavily on when resources are assumed to come online and how they perform operationally, forcing uncertain DWR allocations into the baseline portfolio could have materially altered the optimized buildout and produced results that are not representative of a realistic procurement pathway for CPA. Additionally, CPA notes the current federal administration's actions toward offshore wind will likely, at a minimum and despite pushback by California officials, add significant delays to the build-out of such resources.

Instead, CPA structured the modeling to preserve portfolio diversity by including a wide range of candidate technologies and allowing the capacity expansion and production cost modeling to co-optimize among them based on cost and performance while meeting CPA's clean energy targets and IRP planning constraints. Candidate resources available for selection included, among others, offshore wind, geothermal, long-duration storage, and multi-day storage (approximately 100-hour duration), alongside other renewable and storage options. This approach enables the preferred portfolio to reflect a cost-effective and operationally feasible resource mix, while maintaining flexibility to incorporate DWR-procured resources in future planning updates as those procurement pathways become more defined.

*Table 7: Comparison of 8 MMT Conforming Portfolio (2026 IRP) to 25 MMT Conforming Portfolio (2022 IRP)*

| | 2022 IRP | | 2026 IRP | | 2026 IRP - 2022 IRP | |
|---|---|---|---|---|---|---|
| | 2030 | 2035 | 2030 | 2035 | 2030 | 2035 |
| LSE reliability need (MW) | 2,793 | 2,363 | 2,729 | 3,173 | -64 | 810 |
| ELCC-adjusted capacity (MW) | 2,793 | 2,363 | 2,753 | 3,190 | -40 | 827 |
| hybrid | 927 | 472 | 358 | 309 | -569 | -163 |
| in_state_wind_south | 12 | 5 | 3 | - | -9 | -5 |
| in_state_wind_north | 20 | 9 | - | - | -20 | -9 |
| out_of_state_wind_WY | - | 30 | - | 83 | - | 53 |
| out_of_state_wind_IDWAOR | - | - | - | - | - | - |
| out_of_state_wind_AZNM | 152 | 136 | 360 | 503 | 208 | 367 |
| offshore_wind_north | - | 54 | - | - | - | -54 |
| offshore_wind_south | - | - | - | - | - | - |
| utility_pv | 45 | 54 | 46 | 113 | 1 | 59 |
| btm_pv | 32 | 51 | 80 | 127 | 48 | 76 |
| 4hr_batteries | 860 | 467 | 215 | 489 | -645 | 22 |
| 8hr_batteries | - | - | 88 | 275 | 88 | 275 |
| 12hr_batteries | - | - | - | - | - | - |
| 24hr_batteries | - | - | - | - | - | - |
| 100hr_batteries | - | - | - | - | - | - |
| pumped_storage | - | - | - | - | - | - |
| demand_response | - | - | 48 | 14 | 48 | 14 |
| hydro | - | - | - | - | - | - |
| small_hydro | 5 | - | 3 | - | -2 | - |
| geothermal | 208 | 216 | 199 | 287 | -9 | 71 |
| biomass_wood | - | - | - | 49 | - | 49 |
| biogas | - | - | - | - | - | - |
| nuclear | - | - | - | - | - | - |
| gas_cc | 518 | 854 | 1,064 | 565 | 546 | -289 |
| gas_ct | 13 | 14 | 289 | 378 | 276 | 364 |
| cogen | 2 | - | - | - | -2 | - |
| ice | - | - | - | - | - | - |

The 2026 IRP Preferred Conforming Portfolio (8 MMT by 2045) remains broadly consistent with the 2022 IRP portfolio (25 MMT by 2035) in its overall strategy of relying on a diversified mix of renewables and storage, but the updated buildout (as shown in Table 7 for 2030 and 2035) reflects how CPA's resource strategy evolves under deeper decarbonization and updated planning conditions. Relative to the 2022 IRP, the 2026 portfolio includes more out-of-state onshore wind, more 8-hour storage, and continued reliance on short-term RA purchases from existing gas resources in 2030 to satisfy near-term reliability needs while avoiding long-term fossil fuel lock-in. These differences are driven by updated planning

assumptions and requirements across cycles, including changes to the load forecast, reliability need and ELCC values, emissions targets and intensity assumptions, resource cost and market conditions, and CPA's updated internal RPS and GHG-Free targets, all of which influence the model's cost-optimal selection of resource types, timing, and the role of short-term market products.

### c. GHG Emissions Results

CPA estimated GHG emissions for its Preferred Conforming Portfolio using the CPUC's CSP Calculator, consistent with the 2026 IRP Filing Requirements. Portfolio-level GHG results by milestone year are provided in Table 8. As shown, the Preferred Conforming Portfolio achieves emissions outcomes that are below CPA's benchmark in each milestone year evaluated, reflecting the portfolio's increasing clean energy content and the operational role of storage in reducing reliance on emissions-associated system power.

*Table 8: CPA Preferred Conforming Portfolio GHG Emissions Results*

| Target | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|
| CA State | 30 MMT | 25 MMT | 16 MMT | 8 MMT |
| CPA's Share | 1.243 MMT | 1.050 MMT | 0.860 MMT | 0.443 MMT |
| CPA Portfolio Results | 1.240 MMT | 0.143 MMT | 0.242 MMT | 0.123 MMT |

For this filing, CPA used a custom hourly load shape in the CSP Calculator to better reflect CPA customer usage patterns while maintaining consistency with statewide planning totals. CPA's hourly load shape is developed bottom-up from AMI interval data for active CPA customers (2021–2025), aggregated by rate class, energy product, vintage, and CARE status and normalized on customer counts. A random forest model is trained using calendar features and hourly weather from four stations within CPA's service territory (Burbank KBUR, Los Angeles KLAX, Camarillo KCMA, and Fullerton KFUL). Each rate is forecasted independently and then aggregated to a system-level retail forecast; distribution losses are added by voltage, month, and hour to produce a loss-adjusted, system-level hourly load. To project the hourly shape across the planning horizon, CPA runs ten historical weather scenarios (2016–2025) through the model and averages the resulting hourly profiles. Load modifiers are then added using CPA-territory-specific hourly profiles, including: light-duty EV charging (based on an assumed mix of unmanaged, customer-managed, and smart-managed profiles informed by CPA's managed charging program), behind-the-meter PV shapes (from the CEC hourly PV forecast for SCE zones 7 and 8), behind-the-meter storage profiles (from the 2021–2022 SGIP Impact Evaluation by Verdant Associates, LLC), medium/heavy-duty EV profiles (from the CEC MDHD forecast for zones 7 and 8), and building electrification impacts (derived from a billing analysis comparing CPA customers with and without electric heating). Importantly, CPA's forecast remains scaled to the CEC annual energy forecasts and peak demand values; the custom approach affects the hourly shape used for dispatch and emissions estimation, not the annual totals.

CPA also used user-specified storage charging and discharging profiles in the CSP Calculator to reflect modeled portfolio operations. Storage dispatch for the Preferred Conforming Portfolio was simulated in

PLEXOS, where the aggregate storage fleet was dispatched to maximize system value while minimizing emissions consistent with the hourly emissions profiles used in CSP. CPA then input a normalized charging and discharging profile representing the aggregate storage fleet into the CSP Calculator so that emissions impacts reflect the modeled timing of charging (tending toward lower-emitting hours) and discharging (tending toward higher-emitting hours), rather than relying on generic storage operating assumptions. This approach improves consistency between the production-cost simulation and the CSP emissions accounting and supports a more accurate estimate of portfolio GHG impacts under the Preferred Conforming Portfolio.

## d. Local Air Pollutant Minimization and Disadvantaged Communities

### i. Local Air Pollutants

Table 9 summarizes the NOx, PM2.5, and SO2 emissions associated with CPA's Preferred Conforming Portfolio:

*Table 9: Local Air Pollutants Estimate from CSP*

| **Emissions Total** | ***Unit*** | **2028** | **2030** | **2035** | **2040** | **2045** |
|---|---|---|---|---|---|---|
| $CO_2$ | *MMt/yr* | *1.54* | *1.240* | *0.143* | *0.242* | *0.123* |
| PM2.5 | *tonnes/yr* | *94* | *76* | *89* | *101* | *98* |
| $SO_2$ | *tonnes/yr* | *9* | *7* | *33* | *34* | *34* |
| NOx | *tonnes/yr* | *128* | *102* | *224* | *220* | *214* |

The only contribution to air pollutants in CPA's portfolio is from system power and those administratively-assigned emissions from IFM CHP resources as well as the pro rata share of the non-displaceable system power. As CPA continues to increase the portion of its portfolio under long-term contract with clean energy resources and more storage resources come online to minimize the emissions intensity of system power during net peak load hours, CPA will reduce its reliance on system power and its portfolio's contribution to local air pollution.

### ii. Focus on Disadvantaged Communities

Per its Joint Powers Agreement, CPA intends to provide and manage its energy portfolio and products in a manner that promotes public health in areas impacted by energy production, including Disadvantaged Communities (DACs), as defined in this IRP based on CalEPA's CalEnviroScreen tool.

**Description of Disadvantaged Communities**

For purposes of this IRP, a disadvantaged community is defined as the following based on CalEPA's designation:[5]

I. Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0 (1,984 tracts).
II. Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores (19 tracts)
III. Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0 (307 tracts).
IV. Lands under the control of federally recognized tribes

CPA serves approximately 1,070,092 customer accounts across a service territory that includes 1,155 unique census tracts. CPA has determined that 404 of those census tracts have customers within a DAC or approximately 34.9%. Additionally, CPA serves 281,129 customer accounts located within a DAC, or approximately 26.2% of all customer accounts served are located within a DAC. CPA has also identified and provides in Table 10 below a further breakdown of its customer accounts on CARE and FERA rates including those within a DAC.

*Table 10: CPA's Retail and Wholesale Load Forecast for the 2026 IRP*

| Total Customers | Customers in DAC | Total CARE Customers | CARE Customers in DAC | Total FERA Customers | FERA Customers in DAC |
|---|---|---|---|---|---|
| 1,070,092 | 281,129 | 242,977 | 101,198 | 9,366 | 3,626 |

CPA notes that all of its long-term contracted resources for energy are renewable or non-emitting resources, even those located in or near a DAC, and its main driver of local air pollutants are system power purchases. CPA has continued to grow its generating resource portfolio as it has been operating, reducing its overall reliance on system power as its years of operations have increased.

CPA has identified 869 census tracts and two tribal reservations that are within a DAC and within a five-mile radius of a CPA generating facility. The two maps below provide a visual representation of DAC census tracts within a five-mile radius of a CPA generating facility. As noted above, all these generating facilities rely on non-emitting resources.

[5] SB 535 Disadvantaged Communities | OEHHA (ca.gov). CPA understands that OEHHA had released CalEnviroScreen 5.0 on July 1, 2026, but did not have sufficient time to utilize the latest tool in time for this IRP.

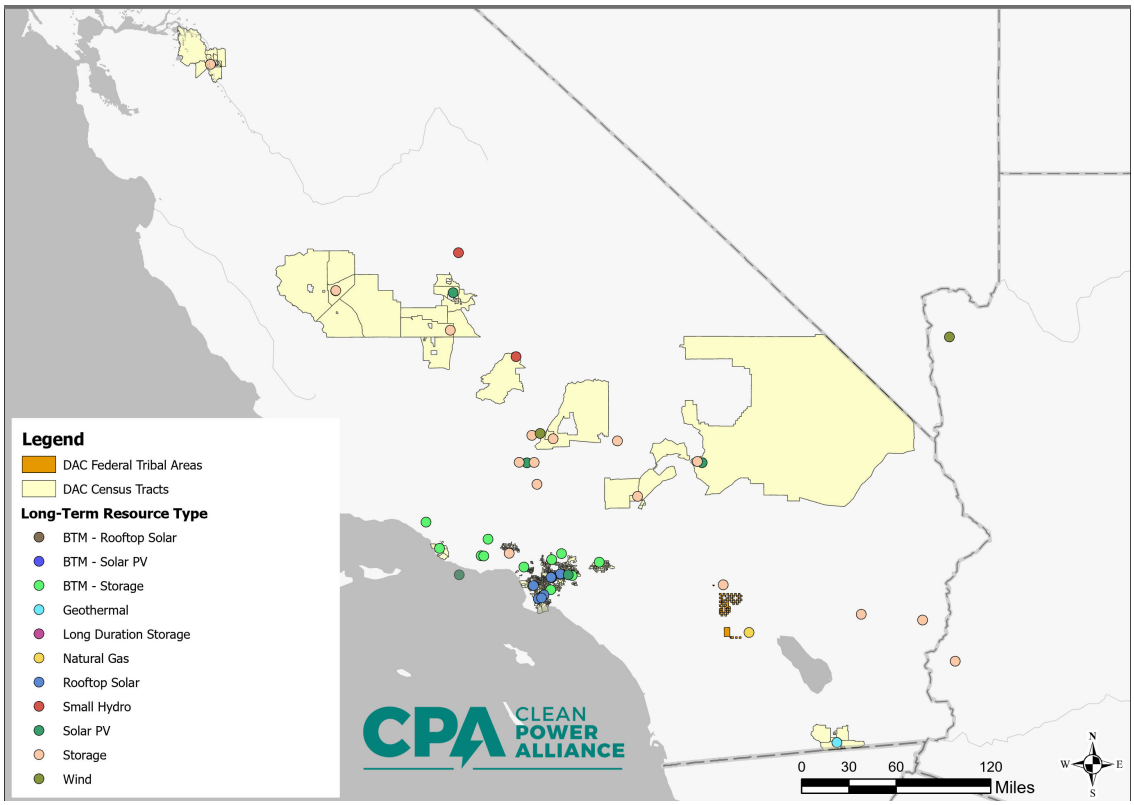



*Figure 15: DAC Census Tracts of Generating Facilities within 5-mile Radius:*

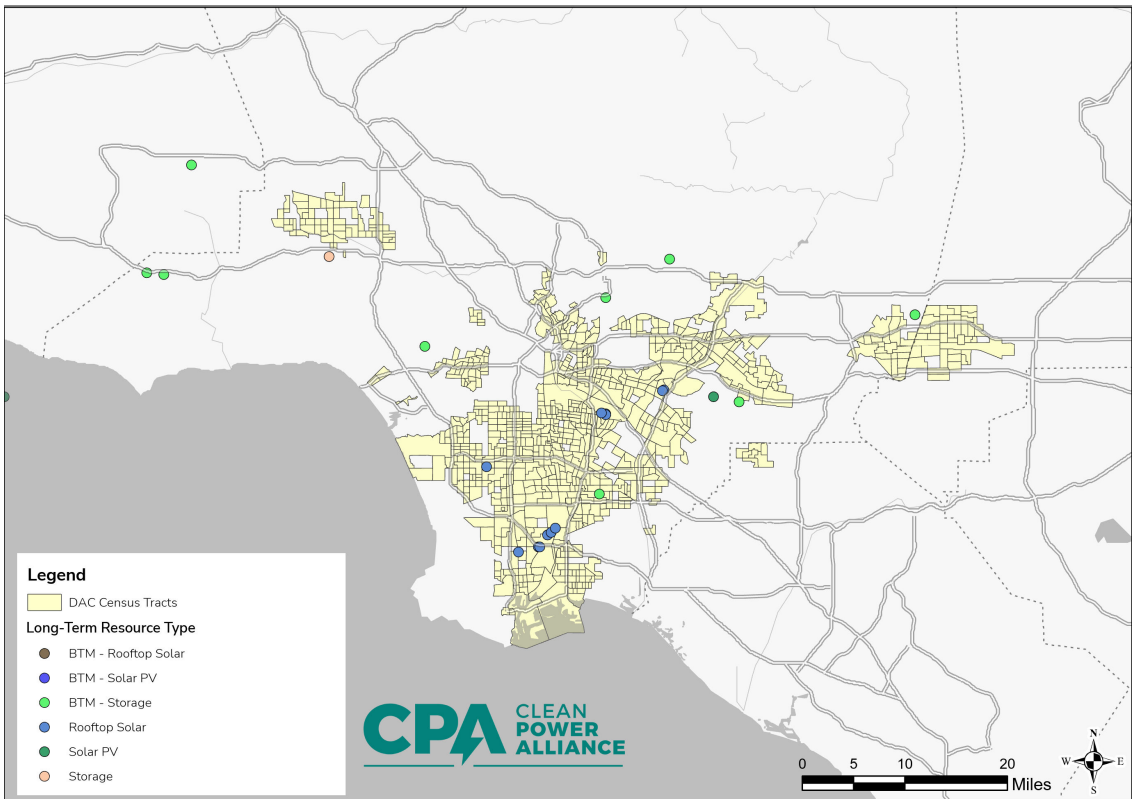



*Figure 16: DAC Census Tracts of CPA Generating Facilities within 5-mile Radius Close Up LA County*

**Procurement Considerations Related to Disadvantaged Communities**

In all RFOs for RPS-eligible or storage contracts, CPA has a strong preference for providing benefits to DACs. Each project submittal receives a "Benefits to Disadvantaged Communities" ranking of either high, medium, neutral, or low. Those projects receiving a high score must be located within a DAC and provide community development benefits, while a project not located within a DAC but can demonstrate DAC benefits and has completed a community outreach effort would receive a medium score.

Additionally, in any RFO that solicits non-RPS-eligible thermal resources, CPA requires such contract to include provisions for transitioning to cleaner operations while also providing a ranking for DAC impacts. Specifically, for this type of project, CPA considers the impacts of projects on DACs, and prefers projects not located in a DAC or projects that can demonstrate benefits to DACs. To date, CPA has not executed a long-term energy contract for non-RPS-eligible thermal resources.

CPA's procurement efforts are based on input from DAC representatives, both from CPA's Community Advisory Committee and other stakeholders, and guided by CPA's Local Programs for Clean Energy Future Strategic Plan which was developed through a community outreach process and subsequent Board direction.[6] CPA plans to continue deploying local programs that provide air pollution mitigation in DACs within its territory, in the following three strategic program areas:

- Resiliency and grid management, including clean back-up power for essential facilities, demand response for when energy use is high, a virtual power plant consisting of behind the meter energy storage systems, and peak management pricing;
- Electrification, including incentives for public and multifamily electric vehicle ("EV") charging and managed EV charging, incentives for efficient electric appliances, and building electrification codes;
- Local clean energy procurement, including the DAC-GT and CSGT Power Share programs.

CPA plans to follow up with its Community Advisory Committee to present the final results to inform the development of this and future IRPs, as well as its procurement and program design strategies.

In addition, CPA relies on a network of more than 300 community-based organizations (CBOs) that we regularly engage through outreach, information sharing, and collaboration opportunities, including organizations serving disadvantaged communities. Through regular dialogue with these organizations and the communities they serve, CPA's resource planning and procurement strategies, rate and product offerings, and customer program designs are informed by the feedback we receive. These activities help inform CPA's IRP and organization-wide strategy to better serve our customers, with a special focus on improving air quality and expanding access to clean energy in disadvantaged communities.

[6] *See* https://cleanpoweralliance.org/community-advisory-committee/ for CPA's Community Advisory Committee information. *AND SEE* https://cleanpoweralliance.org/2023/07/14/actionplan/ for CPA's Local Programs Action Plan for 2023-2025.

## e. Cost and Rate Analysis

CPA's Preferred Conforming Portfolio is a least-cost power supply plan that is co-optimized to meet CPA's clean energy objectives (RPS and GHG-Free), statewide reliability planning requirements, and GHG emissions reduction benchmarks while minimizing the cost to serve load. Figure 17 summarizes projected generation costs in selected milestone years (2028, 2030, 2035, 2040, and 2045) across key cost components, including: (1) contracted costs associated with existing PPAs, (2) planned resource costs associated with new PPAs added under the IRP buildout, (3) cost to serve load at DLAP representing the cost of serving CPA's wholesale load at DLAP, (4) short-term RA purchases reflecting the cost of existing and incremental RA procurement used to meet reliability needs, (5) short-term PCC1 REC and GHG-Free purchases used to manage residual compliance and volumetric gaps, and (6) dispatch revenue from resources (shown as a negative value) reflecting market value from dispatching resources at their modeled pricing nodes. The overlaid line shows normalized generation costs in USD per MWh of retail load, which provides a consistent view of cost trends as load changes over time.

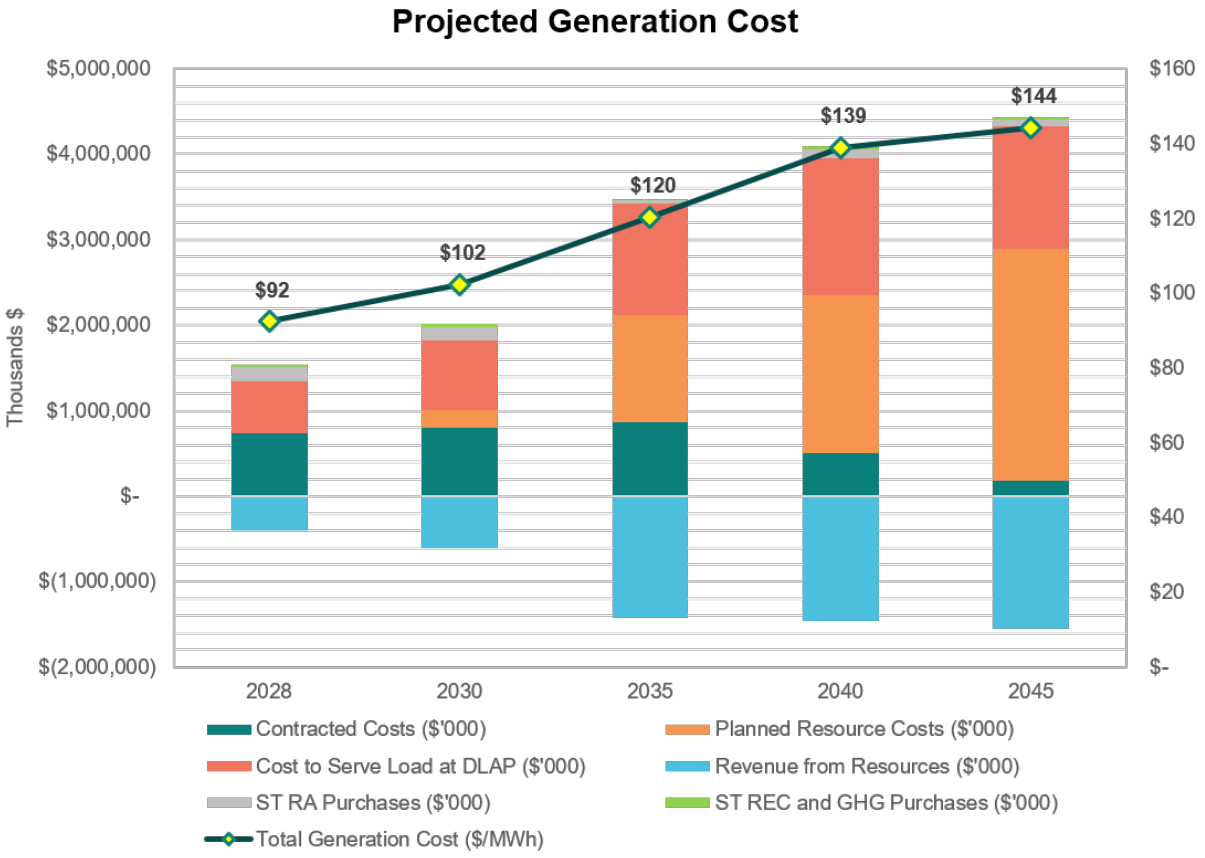



*Figure 17: Conforming Portfolio Projected Generation Costs*

- **Contracted Costs ($'000):** reflect the total cost of CPA's existing executed PPAs and other long-term contracts that are online or otherwise committed in the baseline portfolio. This component is intended to represent the ongoing cost of resources already under contract (including fixed

payment structures and any modeled variable components, consistent with the cost inputs used in the portfolio analysis).

- **Planned Resource Costs ($'000):** reflect the cost of new (not yet executed) long-term PPAs and planned resources added under the Preferred Conforming Portfolio buildout. This component represents the incremental cost of new supply contracted (or modeled as procured) to meet forecast load growth and portfolio requirements, including the cost attributes associated with bringing those new resources online over time.
- **Cost to Serve Load at DLAP ($'000):** represents the cost of serving CPA's wholesale load at the applicable Default Load Aggregation Point (DLAP). In the context of this analysis, it functions as the modeled cost of meeting residual wholesale energy needs at DLAP after accounting for contracted and planned resource delivery and dispatch outcomes.
- **ST RA Purchases ($'000):** represent the cost of short-term Resource Adequacy (RA) procurement, including existing and incremental RA products purchased to meet CPA's reliability procurement requirement over time. This component is used to reflect the cost of meeting reliability needs with short-duration contractual products, rather than assuming all reliability needs are met exclusively through new long-term supply contracts.
- **ST REC and GHG Purchases ($'000):** represent the cost of short-term PCC1 Renewable Energy Credit (REC) purchases and other GHG-Free energy/attribute purchases used to manage residual RPS and GHG-Free compliance gaps and to preserve procurement flexibility. This component is intended to capture the portfolio's reliance on market-based, short-term clean attribute products as a complement to long-term contracted renewable and carbon-free supply.
- **Revenue from Resources ($'000):** represents the market revenue associated with dispatching portfolio resources to their modeled delivery locations (p-nodes), and it is shown as a negative value because it offsets total gross costs. This component reflects the market value captured by energy and storage operations (and, depending on how your model is configured, may also reflect congestion- and timing-driven value differences across resources).
- **Total Generation Cost ($/MWh):** is the normalized generation cost metric shown as the line over the bar chart. It is calculated by taking the net costs reflected in the stacked bars and dividing by total retail load served in each modeled year.

Under this IRP plan, CPA's generation costs are projected to rise by an average of 2.67% per year from 2028 through 2045. This increase is driven primarily by forecasted load growth, which requires incremental resource procurement over time; those incremental resources are expected to enter service at higher market prices than CPA's legacy contracted portfolio, increasing the overall cost of service even as the portfolio becomes cleaner and remains reliable. As the portfolio evolves, the composition of costs shifts from a greater reliance on existing contracted supply and market transactions toward a larger share of costs associated with planned long-term resources and reliability products, while dispatch revenues partially offset gross costs by capturing market value from generation and storage operations.

These cost estimates are inherently assumption-driven and will vary with future market conditions and policy implementation, including load growth realization, technology cost trajectories, RA rules and accounting (including storage counting treatment), congestion and nodal price outcomes, and the

availability and pricing of short-term RA and clean attribute products. Consistent with the scope of this IRP analysis, the results reflect generation and wholesale procurement costs and do not represent a full bundled retail rate forecast, since transmission and distribution service, Power Charge Indifference Adjustment (PCIA), and certain non-energy costs are addressed through separate IOU and administrative cost structures applicable to CPA customers.

## f. System Reliability Analysis

CPA evaluated system reliability for the Preferred Conforming Portfolio using the CPUC RDT, consistent with the 2026 IRP filing guidance. Table 11 presents CPA's annual system reliability accounting in effective MW (i.e., perfect capacity equivalent MW), including total reliability need, total effective supply, and the resulting net capacity position for each study year. Except as noted below for 2026, the Preferred Conforming Portfolio meets or exceeds CPA's reliability requirement in every year of the planning horizon, demonstrating that the portfolio contributes its fair share to statewide system reliability under the IRP ELCC-based planning framework.

*Table 11: Conforming Portfolio Resource Adequacy Position by Contract Status*

| | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LSE reliability need (MW)** | **3,183** | **3,247** | **3,311** | **3,020** | **2,729** | **2,819** | **2,909** | **2,997** | **3,086** | **3,173** | **3,242** | **3,310** | **3,378** | **3,446** | **3,514** | **3,541** | **3,569** | **3,596** | **3,623** | **3,649** |
| **ELCC by contract status (effective MW)** | | | | | | | | | | | | | | | | | | | | |
| Online | 3,086 | 2,988 | 2,589 | 2,115 | 1,650 | 1,672 | 1,666 | 1,398 | 1,384 | 1,377 | 1,210 | 883 | 867 | 784 | 430 | 339 | 125 | 122 | 107 | 48 |
| Development | - | 271 | 292 | 256 | 149 | 143 | 137 | 130 | 124 | 118 | 120 | 121 | 123 | 125 | 127 | 127 | 103 | 60 | 59 | 59 |
| Review | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PlannedExisting | - | 91 | 498 | 629 | 685 | 617 | 513 | 576 | 499 | 503 | 609 | 910 | 919 | 987 | 1,238 | 1,226 | 1,299 | 1,283 | 1,273 | 1,260 |
| PlannedNew | - | - | - | - | 189 | 317 | 515 | 802 | 978 | 1,066 | 1,183 | 1,268 | 1,336 | 1,407 | 1,550 | 1,685 | 1,884 | 1,976 | 2,035 | 2,150 |
| BTM PV | 61 | 67 | 75 | 77 | 80 | 89 | 99 | 110 | 118 | 127 | 135 | 143 | 152 | 161 | 170 | 165 | 160 | 155 | 150 | 145 |
| **LSE total supply (effective MW)** | **3,148** | **3,418** | **3,454** | **3,076** | **2,753** | **2,838** | **2,929** | **3,016** | **3,103** | **3,190** | **3,257** | **3,325** | **3,396** | **3,464** | **3,514** | **3,542** | **3,571** | **3,597** | **3,625** | **3,661** |
| **Net capacity position (+ve = excess, -ve = shortfall) (effective MW)** | **(36)** | **170** | **142** | **56** | **25** | **20** | **20** | **19** | **17** | **17** | **15** | **15** | **18** | **18** | **1** | **1** | **2** | **1** | **2** | **12** |

The RDT table shows a modest negative net position in 2026. This outcome is driven by differences between IRP planning rules and the operational RA compliance framework rather than an indication of noncompliance in the actual RA program. First, under IRP planning standards and California statutory planning requirements[7], Diablo Canyon is not included for long-term planning purposes; however, CPA can and does rely on allocations from Diablo Canyon for RA compliance, and excluding these volumes in the IRP planning framework creates a gap that is isolated to 2026.[8] Second, the IRP ELCC framework applies lower ELCC values for thermal resources relative to the Net Qualifying Capacity (NQC) values those resources may contribute under Slice-of-Day and related RA compliance counting. CPA remains fully compliant for all months of 2026 under the Commission's RA program, and the 2026 negative position shown in the RDT table should be interpreted as an artifact of these accounting differences rather than a deficiency in CPA's compliance posture.

[7] *See* Public Utilities Code § 454.52 (f)

[8] CPA notes it filed its September 2026 Month Ahead RA Compliance filing on July 18, 2026 and was fully compliant while utilizing allocations from Diablo Canyon.

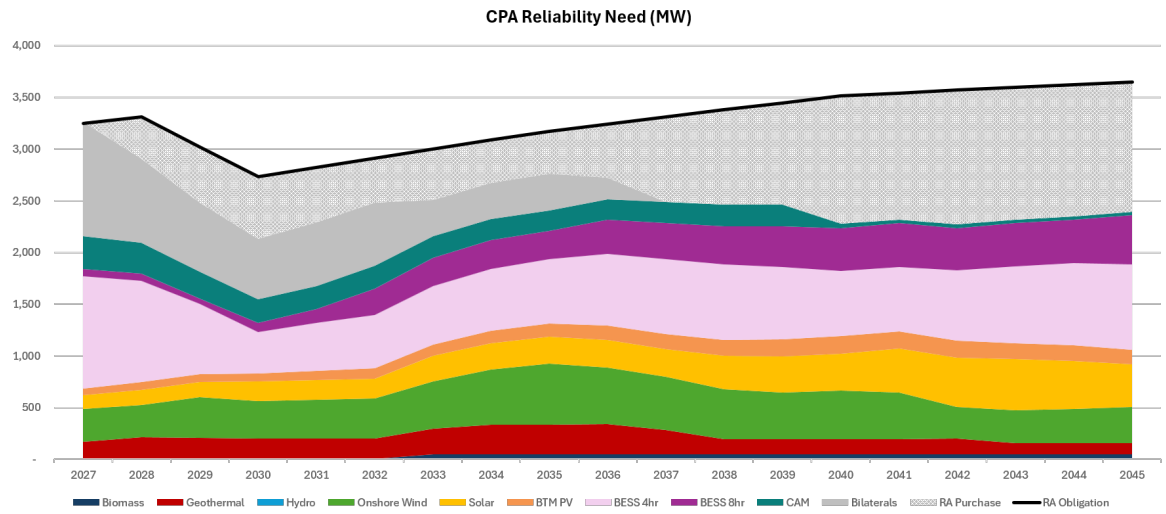



*Figure 18: Conforming Portfolio Resource Adequacy Contribution by Category*

Figure 18 summarizes the resource-category contributions to CPA's RA obligation under the IRP ELCC framework (e.g., solar, wind, storage, and other resource categories) and illustrates the portfolio strategy used to satisfy reliability needs. The figure shows that CPA meets its reliability requirement through a deliberate combination of long-term contracted supply and short-term RA purchases from existing resources, with storage and short-term purchases representing major contributors to effective capacity. Storage, particularly the 4-hour and 8-hour battery fleet, is the largest driver of incremental effective capacity in the preferred portfolio buildout and is optimized to support net-peak reliability and load-resource balancing. Where the portfolio relies on RA purchases from existing gas resources, these products are expected to be associated with resources that operate at very low capacity factors and primarily serve as contingency reliability support during stressed conditions; as a result, the emissions associated with this reliability backstop are expected to be limited. Using short-term RA contracts for existing resources also helps CPA avoid locking customers into long-term fossil reliability commitments, preserving flexibility as reliability rules, accounting methods, and market conditions evolve.

In addition to the ELCC-based IRP reliability assessment reported through the RDT, CPA also evaluated the Preferred Conforming Portfolio under the Commission's Slice-of-Day RA framework as a supplemental check (noting that Slice-of-Day is used for the Commission's RA compliance program). This additional review indicates the portfolio is generally adequate across the planning horizon, but it also identifies seasonal/month-specific gaps that can arise in certain summer or winter months under Slice-of-Day counting rules. These differences reinforce that misalignment between the IRP ELCC planning framework and Slice-of-Day compliance accounting can lead to portfolios that are either over-procured (increasing ratepayer costs) or short in specific critical months even when annual ELCC-based planning adequacy is demonstrated. A primary driver of this divergence is the treatment of storage, where Slice-of-Day accounting can require charging sufficiency and hour-specific availability for capacity counting, while the IRP ELCC approach applies an effective-capacity value that may not fully capture month- and portfolio-specific BESS charging constraints. CPA's results highlight the value of continued

Commission efforts to better align reliability accounting across IRP planning, RA filings, and procurement orders.

## g. Existing Resource Planning

CPA's Conforming Portfolio results in significant new build resources while maintaining a prudent and reasonable approach to utilizing existing resources. For starters, CPA notes that resources that have already been built and placed into service from a purely capital cost perspective often represent the cheapest generation resource available.

**Energy**

In addition to long-term contracts with new build RPS-eligible resources, CPA also expects to meet its energy demand using PCIA VAMO from existing resources, long- and short-term contracts for renewable energy from existing RPS resources and system power purchases. Existing RPS-eligible resources come from currently online RPS-eligible resources (mainly solar and geothermal) that CPA has under long-term contract or from generic solar resources that are generally going to be available in the out years of the planning horizon given the amount of solar resources that have come online within the past five years and will be coming online shortly.

**Capacity**

For purposes of reliability need, CPA's 2026 IRP does rely on existing resources, including thermal, DR, and RPS-eligible, to meet its RA requirement and believes this is a prudent and reasonable decision to ensure a cost-effective portfolio. CPA also notes having a thermal resource *available* through an RA contract does not mean that it will actually run and could be available only for stressed grid conditions. In addition to thermal resources CPA's reliability need from existing resources is a mix of currently online hybrid, geothermal, out of state wind, and minimal amounts of demand response. Table 12 below shows that the amount of CPA's reliability needs being met from existing resources decreases through the outer years of the planning horizon.

**2026 IRP Comparison to 2022 IRP**

When comparing the 2026 IRP to the 2022 IRP, CPA notes that it is not necessarily a direct comparison as many factors have changed in the past four years, including a fairly significant increase in load as compared to 2022. Many resources that were considered planned in the 2022 IRP are now online and, for direct comparison, the only years that appear in both the 2022 IRP and the 2026 IRP are 2030 and 2035.

Table 12 below identifies how the percentage of online and planned existing resources in CPA's reliability need portfolio compares from its 2026 IRP to its 2022 IRP. CPA notes its percentage for the 2026 IRP decreases over the planning horizon corresponding to the increased supply of new build resources.

*Table 12: Comparison of All Resource Types Online and Planned Existing Resources in CPA's 2026 IRP vs. the 2022 IRP as a Percentage of Total Reliability Need*

| Online & Planned Existing Resources (%) | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|
| **2026 IRP** | | | | |
| Online & Planned Existing | 87% | 61% | 50% | 37% |
| **2022 IRP (25 MMT Case)** | | | | |
| Online & Planned Existing | 42% | 56% | N/A | N/A |

## h. Hydro Generation Risk Management

CPA's portfolio has limited exposure to in-state drought. CPA's portfolio contains RPS-eligible hydro, including the 11.95 MW Isabella facility and the 20.09 MW Kaweah facility, which are existing resources and would be impacted by changing rainfall/snowpack. Given the relatively small size of these contracts, they pose minimal risk and are expected to have a negligeable impact on costs, GHG emissions and reliability. While having a small overall impact on CPA's portfolio and expected costs, there are four distinct risks and potential impacts associated with these resources related to drought:

- **Energy:** CPA expects to know ahead of the impacted year what the impact of a drought will be on production. Any energy shortfall will be addressed through CAISO spot market purchases.
- **Capacity:** CPA's small-scale hydro resources represent less than 1% of total nameplate capacity for all CPA's contracted resources and therefore capacity risk for hydro generation is negligible.
- **RPS:** CPA expects to achieve and exceed RPS compliance requirements for the 2026-2045 study period, which means any shortfall of RPS due to hydro generation will likely not affect the RPS compliance for CPA.
- **GHG:** A shortfall of hydro energy will reduce the amount of carbon-free energy in CPA's portfolio. However, hydro generation's impact on CPA's GHG emissions is small, and CPA expects to be able to make up for any shortfall with short-term RECs purchases.

In developing its Conforming Portfolio, CPA took several steps to manage the risk of reduced hydropower availability due to in-state or out-of-state drought. Compared to CPA's 2022 IRP, which did not include any in-state or out-of-state large hydro in its 25 MMT preferred portfolio beyond 2026, CPA's 2026 IRP does include some hydro generation beyond what is already contracted to date as shown in Table 13 below. However, CPA's IRP modeling assumed there would be no out-of-state hydro available over the planning horizon as well as reduced assumptions on the availability of in-state hydro as the planning horizon approaches 2045.

*Table 13: Comparison of Planned Hydro Resources in CPA's 2026 IRP vs. the 2022 IRP*

| Planned Hydro Resources (GWh) | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|
| **2026 IRP** | | | | |
| Existing Large Hydro (In-State) | 650 | 790 | 590 | 395 |
| Existing Large Hydro (OOS) | 0 | 0 | 0 | 0 |

| 2022 IRP (25 MMT Case) | | | | |
|---|---|---|---|---|
| Existing Large Hydro (In-State) | 0 | 0 | N/A | N/A |
| Existing Large Hydro (OOS) | 0 | 0 | N/A | N/A |

CPA recognizes that a drought could reduce the delivery of carbon-free energy from contracted hydro resources and put CPA at risk of buying short-term energy purchases at high prices. To mitigate this risk, CPA plans to increase the amount of solar PV and wind in its portfolio and thereby reduce expected emissions to less than the benchmark GHG amounts. Higher levels of solar PV and wind in CPA's portfolio may also help reduce the overall costs of electricity for CPA's customers.

CPA's hedging of supply risk is focused on the forward 5-year period and includes securing a variety of resources to ensure delivery at stable costs of all the attributes needed in CPA's portfolio, including energy, RA, GHG emissions, and RPS requirements. Due to their short-term nature, hedging decisions are not directly part of the IRP or able to address hydro delivery risk towards the end of the forecast period. However, if CPA's carbon goals are deemed to be at risk, the hedging policy will seek to minimize that risk by procuring additional capacity or energy from carbon-free resources up to 5 years in advance.

### i. Long-Duration Storage Planning

Pursuant to D.21-06-035 CPA has a requirement to procure 59 MW NQC of Long Duration Energy Storage (LDES). D.25-02-057 further requires CPA to meet a subset of its procurement obligation with LDES or Clean Firm resources, which would require an additional 89 MW to be online by 2032, resulting in a total of 148 MW NQC from LDES in CPA's portfolio.

CPA currently has a 75 nameplate-MW contract with an LDES resource (Key Long Duration Energy Storage) that is planned to reach commercial operation by December 2026. CPA's Preferred Conforming Portfolio calls for the procurement of additional LDES resources to meet the D.25-02-057 procurement obligation to be online by 2032 and to procure additional volumes above its LDES procurement obligation. CPA believes this is the most prudent choice for a variety of reasons including its price point as well as the reality of the resource mix currently available in the CAISO interconnection queue.

LDES in the portfolio mix represents a resource diversity benefit that adds both CPA specific and system wide reliability benefits given its duty cycle. At the same time adding LDES to the portfolio does represent a technology risk (if the long-duration storage technology is nascent) as well as increased costs for customers to meet storage needs as compared to other lower-cost storage configurations.

CPA's 2026 IRP assumes procuring more LDES resources than its 2022 IRP. This reflects the additional LDES ordered by D.25-02-057 as well as additional 8-hour battery procurement in various years in the planning horizon beginning in 2030.

## j. Clean Firm Power Planning

Pursuant to D.21-06-035, CPA has a requirement to procure 59 MW of Clean Firm resources. D.25-02-057 further requires CPA to meet a subset of its procurement obligation with LDES or Clean Firm resources, which would require an additional 89 MW to be online by 2032.

CPA currently has contracted for 66 MW of nameplate capacity from two unique geothermal resources (Cape Station and Geysers) that meet the requirements for clean firm power from D.21-06-035. 18 MW from the Geysers geothermal resource has already reached COD and the remaining 48 MW from Cape Station is scheduled to reach commercial operation by June 2028. CPA's Preferred Conforming Portfolio shows the D.25-02-057 subset procurement obligation is best met with LDES resources, although CPA's Preferred Conforming Portfolio does identify a biomass and geothermal resource to come online by 2033.

Clean firm power in the portfolio mix represents a resource diversity benefit that adds both CPA-specific and system-wide reliability benefits given its firm generation profile. However, there are risks associated with including clean firm power resources in the portfolio mix, including delays to the resource's online date due to nascent technology or transmission availability, curtailment risk, as well as increased costs for customers to meet renewable energy needs that could otherwise be met with lower-cost, more flexible technologies. Additionally, given the backlog of CAISO interconnection queue, it is more prudent to include LDES resources as a larger percentage of the Preferred Conforming Portfolio than Clean Firm generating resources.

CPA's 2022 IRP included new generic geothermal as does the 2026 IRP, although the volumes and start dates differ. Additionally, CPA's 2022 IRP did not include any biomass resource while the 2026 IRP includes some volume of biomass in the Preferred Conforming Portfolio. While inclusion of geothermal is in both IRPs, the reason for the inclusion of biomass in this IRP is based on multiple factors including higher system need than in 2022, costs, limited availability of firm resources, and an increasing focus on capacity in addition to energy.

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

The CAISO filed its Subscriber Participating Transmission Owner (SPTO) tariff amendment with the FERC on September 22, 2023, and it was approved by FERC in March 2024.[9] The approval of this PTO model allowed SunZia (both the generation and transmission elements), the nation's largest wind farm, to reach commercial operations and begin delivering power to CAISO in May of this year. The SPTO model will help California meet its long-term goals, with benefits already being realized.[10] CPA is the largest off-taker of

[9] *See* https://www.caiso.com/documents/sep22-2023-tariff-amendment-subscriber-participating-transmission-owner-model-er23-2917.pdf

[10] https://www.utilitydive.com/news/california-gas-generation-down-60-percent-from-2024-as-solar-and-imports-surge/823104/

SunZia with 700 MW of contracted nameplate capacity to date and represents a significant resource within CPA's Preferred Conforming Portfolio.

In addition to SunZia transmission utilizing the SPTO model, CAISO also approved TransWest Express LLC's application to become a SPTO in 2022.[11] The TransWest Express project is a 732-mile combined HVDC/AC line that will stretch from Southern Wyoming to the border of California in Nevada. The 2025-2026 TPP notes the project allows for 1,500 MW of Wyoming wind to integrate with the CAISO.

In addition to the existing contract with SunZia, CPA's Preferred Conforming Portfolio identifies additional wind resources in Wyoming beginning in 2033 which is consistent with the online date for the TransWest express line.[12] CPA's Conforming Portfolio also identifies additional Arizona and New Mexico wind in future years which is consistent with CPA's current contract end date with SunZia, and is consistent with the long term transmission availability for OOS wind resources.

CPA's 2022 IRP included both New Mexico wind and Wyoming wind and are again included in the 2026 IRP given the transmission development of SunZia and TransWest express, which are plausible resources to meet this need.

## l. Offshore Wind Planning

CPA acknowledges that there is a vast amount of offshore wind potential off the Pacific Coast. However, development of these resources is challenged by the depth of the seafloor (which could necessitate floating applications) and the current lack of transmission to areas with the best wind conditions. In this IRP, CPA did consider offshore wind as a candidate resource in the modeling framework, including potential additions in the mid-2030s. Under the cost and performance assumptions used for this cycle, the model does not select offshore wind because its levelized costs and overall portfolio economics are less favorable than onshore wind and other candidate resources. While offshore wind can provide higher capacity factors and potentially higher RA contribution relative to some alternatives, the modeling results indicate that those reliability benefits do not offset the incremental costs compared to other available resource options.[13]

AB 525 directed the CEC to evaluate and quantify the maximum feasible capacity of offshore wind and set a statewide goal for procurement. Additionally, D. 24-08-064, the implementation Decision of AB 1373, found that California needs up to 10.6 GW of new long lead-time (LLT) resources, including 7.6 GW of

[11] https://www.caiso.com/documents/decision-pto-application-transwestexpressllc-motion-dec2022.pdf, CAISO board voted 5-0 to approve TransWest Express' application

[12] https://www.transwestexpress.net/about/timeline.shtml

[13] *See* https://www.utilitydive.com/news/trump-administration-buys-out-four-more-offshore-wind-leases-for-765m/823314/. Trump Administration to date has "bought out" 8 offshore wind leases at a cost of more than $2.5 billion, including in Morro Bay from the Golden State Wind project.

offshore wind. On February 24, 2025, the Commission formally requested the DWR to begin its function as a central procurement entity for such LLT resources.[14]

CPA has not included any AB 1373 resources within its Preferred Conforming Portfolio and believes this is a prudent decision at this time. CPA notes that the largest portion of the LLT need identified in D. 24-08-064 is offshore wind (7.6 GW of the total 10.6 GW). CPA also recognizes that offshore wind project development is subject to significant external uncertainties (including permitting, supply chain, interconnection, transmission development, and broader policy and market conditions), which may affect project timing and delivered costs. As such, CPA's Preferred Conforming Portfolio is designed to remain feasible and cost-effective without relying on offshore wind, while continuing to track offshore wind cost and implementation developments in future planning cycles.

CPA's 2022 IRP included offshore wind from both Morro Bay and Humboldt based on expectations that offshore wind would become technologically mature and that transmission and enabling infrastructure could be available in the early- to mid-2030s, with costs supported by then-expected federal incentives. Since the 2022 filing, federal policy changes have removed wind-related tax credits, increasing expected costs for both onshore and offshore wind compared to prior assumptions, while development timelines have become more uncertain. The preferred 2026 portfolio still includes some onshore wind because it remains comparatively cost-effective and operationally valuable within the modeled resource options while offshore wind, given its higher baseline cost and additional infrastructure and transmission requirements, becomes less economic under the updated assumptions. Accordingly, offshore wind is not included in the 2026 Preferred Conforming Portfolio based on modeling outcomes and the considerations outlined in this subsection.

## m. Transmission Planning

***Background information***

CPA has a number of contracted resources that are contingent on interconnection upgrades, as summarized below:

*Table 14: CPA Contracted Resources Requiring Interconnection Upgrades*

| Facility Name | Technology Type | MW | Location | COD | Expected Network Upgrades Milestone |
|---|---|---|---|---|---|
| Key 75 MW Long Duration | Storage | 75 | Fresno County | 12/1/2026 | 8/1/2026 |
| Key 190 MW | Storage | 190 | Fresno County | 6/1/2027 | 1/1/2027 |

[14] *See* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/ab1373/cpuc-ab-1373-procurement-request_dwr.pdf.

| | | | | | |
|---|---|---|---|---|---|
| Denali | Storage | 93.1 | San Joaquin County | 12/29/2028 | 5/29/2028 |
| Cape Station 30 MW | Geothermal | 30 | Beaver County, Utah | 6/1/2028 | 6/1/2028 |
| Cape Station 18 MW | Geothermal | 18 | Beaver County, Utah | 6/1/2028 | 6/1/2028 |
| Rexford II | Solar + Storage | 200 MW PV / 200 MW Storage | Tulare County | 5/1/2029 | 5/15/2027 |

CPA notes the IRP is not meant to identify specific locations for future resources and rather acts as a guide for LSEs to navigate what resources may be needed to meet each LSE's and the State's unique energy needs and goals. Therefore, the exact transmission needs associated with the buildout from this IRP cannot be known with certainty at this time, and CPA will continue to be engaged at the CPUC and CAISO on TPP development.

Although the IRP does not designate specific interconnection locations, CPA's modeling framework incorporates transmission limitations by constraining candidate resource availability by region to reflect deliverability into CAISO and transfer limitations within CAISO. Specifically, candidate resource build options located outside CAISO are limited based on assumed import capability and deliverability across key interties, consistent with the expectation that imports are constrained by available transfer capability and import rights. In addition, CPA's two-zone CAISO representation (NP15/SP15 with SCE_DLAP settlement) reflects intra-CAISO transfer constraints and congestion (e.g., Path 26/Path 15), which affects both the relative value of resources by region and the feasible contribution of resources to serving CPA load. These constraints ensure the modeled portfolio does not rely on unlimited imports or unconstrained north–south transfers and provides a more realistic representation of how transmission limitations can shape cost-effective resource selection.

CPA has followed TPP closely and opted into the newly created LSE Commercial Interest Point (CIP) process—created in the Interconnection Process Enhancements (IPE) 2023 initiative—beginning with Queue Cluster (QC) 15. CPA launched its QC 16 CIP point allocation RFO on July 8, 2026, which helps ensure that CPA has access to resources within the CAISO interconnection process.

CPA's portfolio identifies new solar and onshore wind resources outside of the CAISO balancing area and believes the existing TPP captures the ability for these resources to connect to the CAISO grid. Specifically, the TransWest express line would ensure Wyoming wind will reach California and with SunZia Transmission now operational there are new potentials for Arizona and New Mexico resources to connect to CAISO, in addition to SunZia wind.

CPA notes that any import resource requires a corresponding Import Allocation Right (IAR) for the resource to count toward CPA's full RA needs. CPA actively manages its IAR portfolio through the annual Import Capability Assignment process in CAISO Tariff § 40.4.6.2.1, and since the launch of the New Use Import Commitment (NUIC) process in 2021 has been actively managing and increasing its long-term IARs to correspond with CPA's current and future out of state resources. Looking forward, CPA anticipates a

continued need to expand long-term IAR to support delivery of additional high-value out-of-state resources, particularly wind and geothermal, which can provide strong reliability contributions and support a diversified, cost-effective clean portfolio.

CPA will continue to monitor CAISO's Transmission Planning Process and the status of different transmission projects as it develops new resources for its Preferred Conforming Portfolio.

# IV. Action Plan

## a. Proposed Procurement Activities and Potential Barriers

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

In D.21-06-035, the Commission ordered LSEs to procure 11,500 MW NQC of new resources between August 2023 and 2026. The Commission further required that of the total 2,500 MW must be from zero-emitting generation to replace Diablo Canyon, 1,000 MW must be from firm zero-emitting resources, and 1,000 MW must be from LDES. The Commission specifically allocated to CPA the following procurement obligations:

| CPA's MTR Procurement Requirement from D.21-06-035[15] | | | | | |
|---|---|---|---|---|---|
| **2023** | **2024** | **2025** | **2026 (LLT)** | **Minimum Zero-Emitting Capacity by 2025** | **Total** |
| 118 | 354 | 89 | 118 | 148 | 679 |

In. D.23-02-040, the Commission ordered LSEs to procure an additional 2,000 MW NQC by 2026 and another 2,000 MW NQC by 2027, specifically allocating to CPA the following procurement obligations:

| CPA's MTR Procurement Requirement from D.23-02-040[16] | | |
|---|---|---|
| **2026** | **2027** | **Total** |
| 117 | 117 | 235* |

*due to rounding the sum of 2026 and 2027 do not equal the stated total from the Commission

Most recently the Commission in D.26-02-057 ordered LSEs to procure an additional 6,000 MW by 2032 spread out between 2030, 2031, and 2032 with an additional requirement that one-quarter of the total MW be from either Clean Firm resources and/or LDES. The Commission specifically allocated to CPA the following procurement obligations.

[15] *See* Ordering Paragraph 3 of D.21-06-035

[16] *See* Ordering Paragraph 3 of D.3-02-40

| CPA's Procurement Requirement from D.26-02-057[17] | | | | |
|---|---|---|---|---|
| **2030** | **2031** | **2032** | **Total** | **Clean Firm/LDES** |
| 118 | 118 | 118 | 354 | 89 |

CPA notes it recently filed its June 2026 IRP procurement MTR Compliance Filing showing it has met its MTR obligations to date and pursuant to the MTR orders is fully contracted to meet its existing MTR procurement order obligations save for the need to procure additional volume of either Clean Firm and/or LDES resources from D.26-02-057 that CPA would procure, as it does all of its long-term resources, through its existing RFO and Board approval process.

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

CPA's Conforming Portfolio does not include any non-candidate resources.

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

CPA's Conforming Portfolio anticipates procurement of additional volumes of solar to come online on various dates from 2030 through 2043. Additionally, to ensure a diverse portfolio that can help address CPA's various procurement needs—including RPS, RA, and complementary load profiles to solar and storage—CPA's Conforming Portfolio also anticipates procurement of additional geothermal, biomass, and wind resources that would come online between 2033 and 2045 as discussed further in section III. j and k. CPA would procure these resources, as it does all of its long-term resources, through its existing solicitation and Board approval processes.

#### iv. Other energy storage not described above

CPA's Conforming Portfolio anticipates procurement of additional volumes of 4- and 8-hour storage beyond procurement order requirements to come online for various dates from 2030 through 2045 and would procure these resources, as it does all of its long-term resources, through its existing solicitation and Board approval processes.

#### v. Other demand response not described above

CPA's Conforming Portfolio does not plan for additional demand response resources beyond what is included in the IEPR forecast. However, CPA notes there is an ongoing CAISO initiative, the Demand and Distributed Energy Market Integration (DDEMI), that may impact the overall Demand Response market and could lead to additional volumes not currently planned for in this IRP.

[17] *See* Ordering Paragraph 6 of D.26-02-057

### vi. Other energy efficiency not described above

CPA's Conforming Portfolio has no additional energy efficiency resources beyond what is included in the IEPR forecast.

### vii. Other distributed generation not described above

CPA's Conforming Portfolio has no additional distributed generation beyond what was included in its IEPR forecast. However, CPA operates numerous programs aimed at distributed generation resources as discussed in more detail in IV. b. below. Additionally, as noted above, the CAISO's DDEMI initiative may impact the overall distributed generation market and could lead to additional volumes not currently planned for in this IRP.

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

CPA currently administers the following programs that aid in the adoption of transportation electrification (TE):

- Energized Communities-Community EV
- Energized Communities-Fleet Electrification
- Electric Vehicle Charging (CALeVIP)
- REACH Codes

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

CPA currently administers the Energized Communities-Building Electrification ("BE") program that assists partner communities in reaching sustainability and decarbonization goals by providing technical support and financial support, up to $250,000. BE includes:

- Technical feasibility and infrastructure plans for BE
- Electrical load and energy infrastructure analyses regarding upgrade needs

Additionally, CPA administers a reach code program to help member agencies adopt building electrification codes that meet climate reduction goals.

### x. Potential Centralized Procurement, pursuant to AB-1373

In addition to discussion in Section III. m. related to AB 1373, CPA notes that it does not include any LLT Centralized Procurement resources in its Preferred Conforming Portfolio for this IRP cycle. As described above, a significant portion of the AB 1373 LLT need identified by the Commission is associated with offshore wind, which is subject to substantial development and delivery uncertainty. In addition, AB 1373 includes procurement volumes for geothermal and long-duration storage (including 12-hour storage and multi-day storage). While these resource types may provide system reliability and clean energy benefits, CPA believes it is prudent to exclude specific AB 1373 centralized-procurement resources from its

Conforming Portfolio at this time given uncertainty regarding what will ultimately be procured, the timing of deliveries, interconnection development status, and the costs of these emerging resource options under current market conditions.

If DWR proceeds to solicit, procure, and bring online LLT resources pursuant to AB 1373, CPA expects the portfolio and customer cost implications would depend on what resources are procured, the contract terms and delivered costs, and the timing of commercial operation relative to CPA's planned resource buildout. In particular, to the extent DWR-procured geothermal and biomass resources are delivered on a timeline comparable to resources in CPA's Preferred Conforming Portfolio, those centralized-procurement deliveries could partially offset, or shift the timing of, geothermal and biomass additions otherwise reflected in CPA's plan. Similarly, if LDES (including 12-hour storage) are procured and delivered at scale and at competitive costs, such deliveries could offset or reduce portions of CPA's and other LSEs' planned storage procurements (for example, by reducing the need for additional 8-hour storage additions, depending on the performance characteristics, RA value, and timing of delivery).

Conversely, if DWR-procured resources differ materially from CPA's planned resource mix, particularly with respect to offshore wind and multi-day storage, the outcome could require either (a) an adjustment to CPA's planned buildout to integrate those resources efficiently, or (b) incremental costs relative to the Preferred Conforming Portfolio, depending on timing, delivered costs, and how those resources interact with system needs and existing contracts. In all cases, CPA anticipates that any DWR-procured LLT resources, if delivered, would contribute positively to statewide clean energy and reliability objectives. The principal uncertainty for CPA's planning is how those deliveries would be reflected in CPA's procurement pathway and customer costs relative to the Preferred Conforming Portfolio.

CPA will revisit these assumptions in the next IRP cycle, and its portfolio will evolve as needed to reflect DWR's progress on AB 1373 centralized procurement, including clearer information on resource selections, delivery timelines, and contract costs, as well as updated market conditions and modeling inputs.

#### xi. Other

CPA's Conforming Portfolio includes procurement of unbundled RA from thermal plants but CPA believes the amount of procurement is commensurate with the existing thermal fleet and notes there are innovative ways to reduce the GHG emissions of the thermal fleet including transitioning to alternative fuel types and adding battery storage.

## b. Disadvantaged Communities (DACs)

CPA administers several activities and programs that address the needs of disadvantaged communities.

- **Power Share**: Provides utility scale clean energy at a 20% bill discount for income-qualified, residential customers in DACs who are enrolled in CARE or FERA. CPA actively engages in outreach

and marketing efforts within DACs. CPA currently has approximately 10,000 customers enrolled in this program.

- **Solar and Battery Access**: This program makes sustainable, renewable energy accessible by helping qualified homeowners receive solar and battery storage with no out-of-pocket expenses for equipment and installation. Customer participation is limited to households with incomes at or below 80% of the Area Median Income (AMI) verified through proof of total household income. Homeowners who are enrolled in one of the Energy Saving Assistance programs are likely to qualify for the 80% AMI threshold. CPA currently has 177 active enrollments, and 48 on the waitlist.
- **Sun Storage Rebate**: CPA residential customers who install a solar battery storage system can apply for a rebate of up to $750 with an additional $250 for income-eligible customers (CARE/FERA) with the Sun Storage Rebate program. This program currently has 224 enrollments.
- **Apartment Building Cooling Assistance (ABCA) Program**: The program will be launching within the next six months and will provide outreach and engagement, technical assistance, and rebates to owners of multifamily properties within CPA's service territory to support their purchase and installation of efficient cooling equipment such as efficient air conditioners (AC) or room heat pumps. Multifamily properties are defined as attached properties of two (2) or more units. The ABCA program will also offer customer support and rebate administration for tenants of multifamily properties who are interested in purchasing and installing the equipment themselves. The ABCA program has set a goal to reserve 30% of the rebate funds for properties within DACs.
- **EV Smart Charge**: EV SmartCharge helps CPA customers save money on their electricity bills by automating their vehicle charging at the most cost-effective time. The app-based program works by managing a vehicle's charging schedule, automatically charging during off-peak periods when electricity demand and costs are lower. CPA currently has 1,585 enrollments over 300 of those enrollments are either low-income or living in a DAC.
- **Power Response**: This program incentivizes customers to temporarily reduce their electricity usage during periods of high energy demand, known as "Energy Saving Events," by offering financial rewards for participating, helping to stabilize the electrical grid and promote energy conservation within the community. CPA offers a no-cost thermostat to income-eligible (CARE/FERA) customers. CPA currently has 3,926 enrollments.
- **Power Ready**: Power Ready is a community benefit program offered to CPA's member agencies and community critical sites. The program enhances energy and community resiliency by installing solar-plus storage systems as a clean energy backup source that is available when a power outage occurs. Power Ready supports solar and battery backup power to public emergency evacuation centers and cooling centers that are open to the public, including within DACs, that can benefit from these services during times of grid outage events. CPA currently has 11 enrollments.
- **Multifamily EV Charging Program**: The program will be launching within the next six months and will provide technical assistance and rebates to multifamily customers to support the installation of smart outlet EV chargers, L1, and L2 EV chargers. CPA will be tracking participating within DACs and offering higher incentives for properties where two or more of the residents and/or tenants are on CARE/FERA or in affordable housing.

- **Energized Communities & Innovation Fund**: This program assists partner communities in reaching sustainability and decarbonization goals by providing financial (up to $250,000) and technical support. The Innovation Fund includes projects that extend beyond the other Energized Communities Pathways and focus on resilience and grid management, electrification, or local clean energy procurement. CPA partners with participating agencies to provide targeted DAC marketing and outreach support.
- **Energy Team**: This program offers CPA residential and small business customers expert energy guidance, virtual assessments, and online calculator tools at no cost to the customer.
- **Instant AC Savings**: CPA residential CARE or FERA customers can receive a $300 instant coupon toward the purchase of an eligible ENERGY STAR certified room AC unit. Outreach is focused on communities with high CARE, FERA, DAC, and low-income customers. CPA currently has 74 reservations, of which 17 have received their redemptions.

In addition to the programs discussed above and to expand DACs' access to renewable energy, CPA makes available higher tiers of renewable product offerings to all its customers, including its customers that receive rate assistance through CARE, FERA, and Medical Baseline programs. CARE, FERA, or Medical Baseline customers located in jurisdictions that have selected CPA's 100% renewable as their default energy product are defaulted into CPA's 100% renewable product at a rate that matches the overall bill cost those customers would pay on SCE's discounted bundled rate, inclusive of PCIA and their existing discounts. This program provides equitable access to renewable energy options for customers that might otherwise have difficulty accessing other traditional renewable energy programs and avoids increasing generation costs for CPA's most vulnerable customers.

CPA also has several programs that aim to reach disadvantaged communities and expand their access to the clean energy economy:

- **Community Benefits Grant Program**: An annual funding program that invests in nonprofit organizations advancing clean energy, environmental sustainability, workforce development, and community resilience throughout CPA's service area in Los Angeles and Ventura counties. The program is funded by Calpine Community Energy; CPA develops the grant guidelines, conducts community outreach, and collaborates on the review and selection of award recipients. The grant supports projects that expand equitable access to clean energy and create meaningful environmental and economic benefits for local communities. Priority funding areas include:
    - Research that advances clean energy and sustainability solutions.
    - Resilience projects that strengthen community preparedness and climate adaptation.
    - Environmental and Social Justice initiatives serving disadvantaged and historically underserved communities.
    - Workforce Development programs that prepare residents for careers in the clean energy economy.
    - Education efforts that promote environmental stewardship and clean energy awareness.

  Grant awards typically range from $15,000 to $30,000 for one year. Since its launch in 2021, the program has invested over a million dollars in more than 40 community-based organizations

delivering innovative projects such as clean energy education, youth environmental leadership, workforce training, resilience planning, and sustainability initiatives. In recent years, the program has expanded its funding to include support for organizations responding to climate-related emergencies, including wildfire recovery efforts.

- **Multi-Craft Core (MC3) Pre-Apprenticeship Programs**: MC3 pre-apprenticeship programs provide bootcamp training for students in underserved communities and help place them into union construction trade apprenticeship programs under the North America Building Trades Unions and the Los Angeles and Orange County Building and Construction Trades Council. CPA has invested $1.47 million over a three-year period to fund student support services and training stipends, supporting 600 pre-apprentices over that time. CPA works with three partners: Flintridge Center in Pasadena, Women in Non-Traditional Employment Roles (WINTER) in Los Angeles, and the Workforce Development Board of Ventura County (WDBVC), with trainings planned at Oxnard College. Together, these partners deliver pre-apprenticeship training to underrepresented individuals, including those who are previously incarcerated, gang-impacted, women, low-income, people of color, veterans, or recently out of foster care. To date, CPA funding has supported 178 students across the three organizations.

- **Voyager Scholarship**: The Voyager Scholarship is a workforce development initiative created by CPA to help prepare the next generation of clean energy professionals. Established in 2019 with initial funding provided by the Voyager Wind project developer, Terra-Gen, with additional funding approved by the CPA Board in 2024. The program provides scholarships to community college students pursuing careers in pathways such as renewable energy, electrification, environmental science, advanced transportation, and related energy fields at participating community colleges throughout Los Angeles and Ventura counties. The scholarship is designed to:
    - Expand access to higher education for students pursuing clean energy careers.
    - Strengthen Southern California's renewable energy workforce.
    - Reduce financial barriers for students studying fields such as electric vehicles, electrical technology, environmental science, renewable energy, and advanced transportation technologies.
    - Support equitable workforce development by investing in local talent from CPA's service area.

  Since its launch, the program has expanded from seven to eleven participating community colleges and represents a long-term investment in developing a skilled workforce to support California's clean energy transition. Scholarship awards are administered through participating college foundations, which determine recipient selection based on their scholarship processes and areas of study. To date, over $116,000 in scholarships have been awarded to students. CPA has committed a total of $435,000 in continued funding for the scholarship program.

## c. LSEs' Tribal Customers

CPA currently does not serve any customers located on tribal lands.

## d. Procurement Products

CPA primarily procures through competitive solicitations and supplements with short-term products and market transactions to manage reliability, RPS, and GHG-Free compliance needs while maintaining flexibility. The table below summarizes key products across multiple solicitations.

| Product | Description of Product |
|---|---|
| **Clean Energy & Reliability RFO – Renewable Generation Only Contracts** | Long-term physical PPAs for standalone renewable generation that deliver energy into CAISO and support CPA's RPS/GHG-Free and IRP portfolio needs. |
| **Clean Energy & Reliability RFO – Renewable Generation Plus Storage Contracts** | Long-term physical PPAs for co-located/hybrid renewable generation paired with storage to improve load-matching and increase effective capacity contribution. These contracts support clean energy delivery and reliability value, depending on storage duration and operating constraints. |
| **Clean Energy & Reliability RFO – Standalone Storage Contracts** | Long-term agreements for standalone storage (durations of at least 4 hours) to provide dispatchable capacity, net-peak support, and grid flexibility. These products support reliability and reduce curtailment risk by shifting energy across hours. |
| **Clean Energy & Reliability RFO – RA Only Contracts (Long Term)** | Long-term procurement of RA capacity products intended to meet system and/or local RA obligations without procuring bundled energy or clean attributes. These contracts provide a capacity-based reliability product and preserve flexibility as RA requirements evolve. |
| **Clean Energy & Reliability RFO – PCC1 Energy Only (Fixed Price or Index Plus) Contracts** | Energy-only contracts that provide PCC1-eligible renewable energy/attributes, structured as either fixed-price or index-plus products. These products help manage RPS positioning and maintain flexibility alongside long-term contracted supply. They don't include any RA attributes from the facilities. |
| **Clean Energy & Reliability RFO – Dispatchable Thermal Energy with RA Contracts** | Dispatchable thermal energy products with cleaner operations and include RA capacity value, sourced from existing thermal resources (including configurations with attached batteries or running on blended fuels). These products have shorter term lengths and are used primarily as a reliability backstop and structured to limit long-term fossil lock-in where feasible. |
| **Innovation Solicitation for Emerging Technologies (Annual)** | Annual solicitation pathway for emerging/non-standard technologies and project structures that do not fit the standard Clean Energy & Reliability RFO categories. This channel supports portfolio diversity and resilience by evaluating innovative solutions with an emphasis on learnings, scalability, and future applicability. |

| | |
|---|---|
| **Short-Term RA Purchases (RA RFOs / Bilateral / Brokers)** | Short-duration RA procurement (month-ahead, seasonal, or annual) used to manage near-term reliability needs, bridge timing gaps, and maintain flexibility. |
| **Short-Term PCC1 Purchases (RFOs / Bilateral / Brokers)** | Short-term PCC1-eligible purchases used to manage residual RPS compliance needs and volumetric gaps due to load variability, contract shapes, and market availability. |
| **Short-Term Clean Energy Purchases (RFOs / Bilateral / Brokers)** | Short-term clean energy purchases (including hydro) used to manage residual GHG-Free targets and provide flexibility while long-lead resources are developed and brought online. |

## e. Commission Direction of Actions

The Commission's development of the Reliable and Clean Power Procurement Program (RCPPP) and related procurement direction is occurring alongside major, discrete procurement mandates that materially affect LSE planning and implementation. The Commission released the RCPPP Staff Options Paper (September 2022) shortly before LSEs filed their 2022 IRPs, and since then has issued significant procurement orders, including D.23-05-040, which required an additional 4,000 MW of NQC to come online in 2026 and 2027, and D.25-02-057, which required an additional 6,000 MW of NQC, with at least 1,500 MW coming from LDES or Clean Firm resources, to come online in three tranches starting in 2030. In addition to these unique procurement orders, the Commission has issued numerous decisions that affect procurement requirements and LSE compliance obligations across proceedings.

In April 2025, the Commission issued the "Staff Proposal: Reliable and Clean Power Procurement Program" as a follow-up to the 2022 Staff Options Paper, supported by a two-day workshop and party comments. On June 23, 2026, the ALJ issued the "Ruling Seeking Comments on Additional Proposal for a Reliable and Clean Power Procurement Program." CPA appreciates the Commission's effort to develop a durable long-term procurement framework through RCPPP; however, CPA's study results and implementation planning identify several areas where additional Commission direction would materially improve alignment, reduce duplicative compliance friction, and ensure that procurement signals are implementable and durable.

First, CPA requests the Commission better integrate any RCPPP and the IRP generally with RA accounting methodologies across (a) month/year ahead filings which rely on Slice-of-Day accreditation, (b) IRP portfolio modeling, which commonly relies on ELCC-based RA accounting, and (c) procurement orders, where ELCC concepts may be applied in ways that differ from IRP planning (including values that are calculated differently and are marginal rather than portfolio-average). In practice, this misalignment can create conflicting procurement signals and complicate contracting strategies because an LSE may appear balanced under one framework while appearing short (or long) under another, and both pose financial risks and costs to ratepayers. CPA recommends the Commission adopt a clear approach that results in a single consistent planning standard so that IRP modeling, procurement order compliance demonstrations, and RA filings are aligned in a way that LSEs can execute without duplicative procurement or unintended over/under-procurement outcomes.

Second, CPA requests Commission direction to improve load forecast integration for IRP planning. CPA's experience is that the standardized forecast used for IRP planning can diverge materially from LSE internal forecasts that incorporate more localized, service-territory-specific information and may better reflect evolving drivers of load growth and load shape, particularly around data center development and electric vehicle adoption. Because load assumptions strongly influence modeled resource needs, buildout timing, and cost/reliability outcomes, CPA recommends the Commission and staff establish a clearer process to incorporate and reconcile LSE-provided forecast intelligence with the CEC forecast framework used for IRP planning. CPA further recommends that this integration be paired with structured scenario analysis so that procurement direction remains robust across plausible load trajectories and shapes, rather than being optimized to a single point forecast that may become outdated.

Third, CPA requests Commission direction to expand and formalize scenario and sensitivity analysis in the IRP process to more explicitly address uncertainty and improve the durability of procurement signals that flow through RCPPP and procurement orders. A key opportunity to improve IRP modeling and planning is to systematically evaluate uncertainty by varying major drivers that materially affect portfolio selection and feasibility, including resource costs, resource availability and development constraints, out-of-state import capability and deliverability, load forecast levels and shapes, emissions intensities, and broader WECC policy/market conditions that affect CAISO prices and regional supply-demand balance. These uncertainties can meaningfully change the "least-cost" portfolio result and can affect whether assumed procurement pathways remain feasible by the time they are implemented.

In addition to a broader set of deterministic sensitivities, CPA recommends the Commission consider incorporating stochastic capacity expansion modeling (or a comparable approach) to evaluate portfolios that perform well across a range of plausible futures rather than optimizing to a single base case with point assumptions. This would better identify least-regrets strategies, quantify the value of hedging actions, and reduce the risk that procurement direction is overfit to a single assumed future that may not reflect conditions at the time of contracting and delivery. CPA believes these improvements would strengthen alignment between IRP planning, RCPPP program design, and procurement order implementation, and would provide clearer, more durable procurement signals for LSEs executing procurement on behalf of customers.

# V. Lessons Learned

The IRP is a long-term planning exercise intended to provide a credible path for an LSE to meet reliability, clean energy, and emissions obligations over the planning horizon using the best information available at the time of filing. CPA views the process as most valuable when it produces outputs that are useful for procurement planning and that remain durable as market conditions, loads, and policy requirements evolve. In this filing cycle, CPA identified several practical improvements that would strengthen the IRP's ability to support statewide policy goals while reducing implementation risk and unnecessary rework.

A recurring lesson learned is the importance of alignment between planning constructs and compliance constructs, particularly for Resource Adequacy. As discussed in Section III.f, CPA assessed its portfolio under both the IRP's ELCC-based framework and the RA program's Slice-of-Day framework, even though such dual-checking was not required. That comparison provided direct insight into how planning against two standards can create misaligned signals for procurement timing and product selection can result in over-procurement or under-procurement depending on the framework and can reduce confidence that an IRP portfolio is readily implementable under the compliance framework that LSEs must ultimately satisfy. Consistent with Section IV.e, CPA encourages the Commission to pursue a durable long-term solution that uses SOD accreditation so that IRP planning outputs can be more directly applied to RA compliance and procurement execution, supporting reliability while avoiding duplicative procurement driven by methodological differences.

The second lesson learned relates to uncertainty management and scenario development. A key opportunity to improve the IRP modeling and planning process is to treat uncertainty more explicitly through expanded scenario and sensitivity analysis, particularly around the inputs and assumptions that drive portfolio buildout and cost and reliability outcomes. The process would benefit from systematically varying major drivers such as resource costs, resource availability and development constraints, out-of-state import capability and deliverability, load forecast levels and shapes, emissions intensities, and broader WECC policy or market changes that affect CAISO prices and regional supply-demand balance. These uncertainties materially affect both optimal resource selection and the feasibility of assumed procurement pathways and making them explicit would improve the Commission's ability to issue procurement direction that remains robust over time.

In addition to deterministic sensitivities, CPA recommends that the Commission evaluate methods such as stochastic capacity expansion modeling (or a comparable approach) to identify portfolios that perform well across a range of plausible futures rather than optimizing to a single base case with point assumptions. This type of approach can help identify least-regrets strategies and quantify the value of hedging actions, improving the likelihood that procurement direction supports SB 100 and emissions objectives while maintaining reliability under changing conditions. Even if full stochastic modeling is not adopted near-term, CPA recommends establishing a more systematic and transparent scenario framework so that parties can clearly see which uncertainties drive outcomes and how portfolio choices change under different futures.

A third lesson learned is that the usefulness of IRP outputs depends heavily on maintaining current and realistic inputs and assumptions, especially for rapidly evolving drivers. When the IRP cycle spans multiple years, point assumptions for key drivers can become stale relative to observed market conditions, technology cost trajectories, and evolving load and policy dynamics by the time portfolios are developed and filed. CPA recommends focusing on a more current base case and pairing it with structured sensitivity analysis so that conclusions are not overly dependent on a single assumption set. This supports state policy goals by reducing the risk that procurement direction is based on conditions that no longer reflect the market environment when contracting occurs.

Relatedly, CPA's experience is that load forecast divergence can meaningfully affect modeled needs and portfolio outcomes. Standardized forecasts used for IRP planning can diverge from LSE internal forecasts that incorporate more granular, service-territory-specific information, particularly around localized drivers such as data center development and electrification (including EV adoption). CPA recommends that the Commission and staff continue improving the integration between statewide forecasting frameworks and LSE localized intelligence, including scenario analysis around load levels and load shapes. Improved load forecast integration would strengthen the Commission's ability to achieve state reliability and clean energy goals because resource need determinations and procurement signals would better reflect conditions likely to materialize in specific service territories.

Finally, CPA recommends targeted process improvements that would strengthen filing quality and reduce avoidable filing risk, supporting the Commission's policy goals by improving consistency and confidence in submitted materials. CPA suggests that office hours occur more frequently and earlier in the cycle so that expectations and template usage questions can be resolved before filings are largely complete. In addition, CPA recommends establishing a clearer, more transparent pathway for logging template or tool issues (for example, with acknowledgement, prioritization, and expected response timelines) so that LSEs can address time-sensitive questions consistently and avoid divergent workarounds.

CPA also encourages continued improvement to the stability, usability, and documentation of the RDT and CSP calculator tools. In CPA's experience, multiple template iterations and lingering formula or data-quality issues can increase workload under tight deadlines and introduce inconsistent approaches across filers. CPA recommends continued quality assurance prior to posting "final" tools and clearer documentation where methodological choices affect outcomes. For example, CPA suggests that future enhancements to CSP consider improved representation of evolving hourly load shapes across years and clearer emissions accounting documentation (including key allocation assumptions), to support more consistent and decision-useful emissions estimation while preserving the Commission's objective of a simple and uniform reporting framework.

CPA appreciates the Commission and staff's continued efforts to refine the IRP process, and offers these lessons learned to support a process that is more implementable, transparent, and durable. CPA believes that aligning reliability constructs, strengthening uncertainty analysis, improving load forecast integration, and continuing to enhance filing tools and support processes would facilitate the ability of both the Commission and LSEs to achieve California's clean energy, emissions reduction, and reliability goals. CPA is committed to providing safe, reliable, affordable, and clean energy to its customers and to collaborating with statewide energy stakeholders to support California's energy goals.

# Attachment C

## CPA's Resource Data Template Version 3
## and
## Clean Power System Calculator

## (Public Versions)

*Attachment C is Submitted per Notice of Availability*