



MEETING of the Energy Planning & Resources Committee of the Clean Power Alliance of Southern California

Wednesday, September 28, 2022

12:15 p.m.

SPECIAL NOTICE: Pursuant to the Proclamation of the State of Emergency by Governor Newsom on March 4, 2020, AB 361, and enacting Resolutions, and as a response to mitigating the spread of COVID19, the Energy Planning & Resources Committee will conduct this meeting remotely.

[Click here to view a Live Stream of the Meeting on YouTube](#)

If the YouTube stream is not working, please use the zoom link.

*There may be a streaming delay of up to 60 seconds. This is a view-only live stream.

To Access the Meeting:

<https://us06web.zoom.us/j/85975901993>

or

Dial: (720) 707-2699 Meeting ID: 859 7590 1993

PUBLIC COMMENT: Members of the public may submit their comments by one of the following options:

- **Email Public Comment:** Members of the public are encouraged to submit written comments on any agenda item to clerk@cleanpoweralliance.org up to four hours before the meeting. Written public comments will be announced at the meeting and become part of the meeting record. Public comments received in writing will not be read aloud at the meeting.
- **Provide Public Comment During the Meeting:** Please notify staff via email at clerk@cleanpoweralliance.org at the beginning of the meeting but no later than immediately before the agenda item is called.
 - You will be asked for your name and phone number (or other identifying information) and agenda item similar to filling out a speaker card so that you can be called on when it is your turn to speak.
 - You will be called upon during the comment section for the agenda item on which you wish to speak on. When it is your turn to speak, a staff member will unmute your phone or computer audio.
 - You will be able to speak to the Committee for the allotted amount of time. Please be advised that all public comments must otherwise comply with our Public Comment Policy.
 - Once you have spoken, or the allotted time has run out, you will be muted during the meeting.

If preferred, you may also submit written comments during the meeting via email to: clerk@cleanpoweralliance.org. The written comments will not be read aloud but will be shared with Committee.

*While downloading the Zoom application may provide a better meeting experience, Zoom does not need to be installed on your computer to participate. After clicking the webinar link above, click "start from your browser."

Clean Power Alliance Energy Planning & Resources Committee
September 28, 2022

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PUBLIC COMMENT POLICY: *The General Public Comment item is reserved for persons wishing to address the Board on any Clean Power Alliance-related matters not on today's agenda. Public comments on matters on today's Consent Agenda and Regular Agenda shall be heard at the time the matter is called. Comments on items on the Consent Agenda are consolidated into one public comment period. Members of the public who wish to address the Board are requested to contact the Board Clerk, as specified above, at the beginning of the meeting but no later than immediately prior to the time an agenda item is called. Each speaker is limited to two (2) minutes (in whole minute increments) per agenda item with a cumulative total of five (5) minutes to be allocated between the General Public Comment, the entire Consent Agenda, or individual items in the Regular Agenda. Please refer to Policy No. 8 – Public Comment for additional information.*

CALL TO ORDER & ROLL CALL

GENERAL PUBLIC COMMENT

CONSENT AGENDA

1. Approve Minutes from August 24, 2022, Energy Committee Meeting
2. Receive and File August 2022 Risk Management Team Report

REGULAR AGENDA

3. Review Energy Procurement Update
4. Approve Staff to Proceed with Negotiations of an Amendment to the Power Purchase Agreement with Arlington Energy Center for Incremental Solar and Storage Capacity as Recommended by the Review Team
5. Review IRP Results
6. Overview of Power Ready RFO

COMMITTEE MEMBER COMMENTS

ADJOURN – NEXT MEETING OCTOBER 26, 2022

Public Records: *Public records that relate to any item on the open session agenda for a Committee Meeting are available for public inspection. Those records that are distributed less than 72 hours prior to the meeting are available for public inspection at the same time they are distributed to all, or a majority of, the members of the Committee. Those documents are available for inspection online at www.cleanpoweralliance.org/agendas.*

MINUTES

REGULAR MEETING of the Energy Planning & Resources Committee

of the Clean Power Alliance of Southern California

Wednesday, August 24, 2022, 12:15 p.m.

Pursuant to the Proclamation of the State of Emergency by Governor Newsom on March 4, 2020, AB 361, and enacting Resolutions, and as a response to mitigating the spread of COVID19, the Energy Planning & Resources Committee conducted this meeting remotely.

CALL TO ORDER & ROLL CALL

Chair Parkhurst called the meeting to order at 12:15 p.m. and, Gabby Monzon, Board Clerk, conducted roll call.

ROLL CALL			
Alhambra	Jeffrey Maloney	Committee Member	Remote
Carson	Reata Kulcsar	Committee Member	Remote
Culver City	Daniel Lee	Committee Member	Absent
Oxnard	Kathleen Mallory	Committee Member	Remote
Sierra Madre	Robert Parkhurst	Chair	Remote
South Pasadena	Diana Mahmud	Committee Member	Remote
Thousand Oaks	Helen Cox	Committee Member	Remote

All votes are unanimous, unless otherwise stated.

The Committee dedicated a moment of silence in honor of Ventura County Supervisor and Member of the Energy Committee, Carmen Ramirez.

GENERAL PUBLIC COMMENT

There was no public comment.

CONSENT AGENDA

1. Approve Minutes from July 27, 2022, Energy Committee Meeting
2. Receive and File July 2022 Risk Management Team Report

Motion: Committee Member Mahmud, South Pasadena

Second: Committee Member Maloney, Alhambra

Vote: The consent agenda was approved by a roll call vote with an abstention by Committee Member Cox and minor edits to Item 1.

CLOSED SESSION

3. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION
Exposure to litigation pursuant to paragraph (2) of subdivision (d) of Section 54956.9: 1
Nancy Whang, General Counsel, reported that no reportable action was taken.

REGULAR AGENDA

4. Review 2022 Integrated Resource Plan (IRP) Preliminary Results

Natasha Keefer, Vice President, Power Supply, provided a presentation on the 2022 Integrated Resource Plan (IRP) preliminary results. CPA is required to file its 2022 IRP by November 1. Ms. Keefer provided background on the IRP proceeding and reviewed the process by which CPA conducts its IRP modeling. Planning efforts for the 2022 IRP will be focused on 2035 targets and will reflect CPA's organizational goals and statewide GHG benchmarks. Ms. Keefer reviewed inputs and scenarios, noting that staff will run various rate product scenarios prior to IRP submission, including a base case, low case, and high case scenario. Ms. Keefer outlined two scenarios and discussed their year-by-year targets. Ms. Keefer shared the preliminary results of CPA's new resource buildout in comparison to the 2020 planning cycle; CPA will fill its future resource needs with a mix of solar, battery storage, wind, and existing hydro. The base case is anticipated to meet and exceed the 2035 30 MMT GHG target. Ms. Keefer reviewed several charts depicting a typical CPA energy service day during various future years, with Utility Scale Solar being the major resource to serve customer demand. Ms. Keefer reviewed key findings, noting that because of the large number of 100% Green rate customers, CPA expects to exceed the state GHG targets. Staff will continue to run additional scenarios reflecting current market conditions, regulatory changes, and impacts of the Inflation Reduction Act.

Committee Member Mahmud inquired as to why the comparison of 2020 and 2022 planning cycles shows hydro almost disappearing from procurement while the amount of energy that is procured is substantially more. Ms. Keefer noted that the increase in megawatts is due to battery storage which is shifting megawatts around. In the 2020 IRP, the CPUC assumed that one megawatt of installed capacity would equal one megawatt of reliable capacity to meet Resource Adequacy (RA) requirements (1 for 1). In this IRP, it has decreased to 85% in 2024, so the reliability factor goes down 50% by 2035, so two megawatts of battery will be needed to count for one megawatt of RA. Responding to Committee Member Mahmud's question, Ms. Keefer clarified that there are two factors involved with the elimination of hydro in the planning cycles, one being the concern associated with the availability of hydro, and the second is the change to CPA's rate products; an assumption that Lean emissions reductions come from renewables and not from hydro meaning there is less need to buy carbon-free beyond the renewables purchased. Chair Parkhurst advised that the Board will consider delegation of approval of the IRP to the Energy Committee at its next meeting; opined that although it is important for the Committee to consider procurement in the future, it does not have the same type of enforceability as other CPUC orders. Committee Member Mahmud inquired if curtailment demonstrated a need to weigh the cost benefits of procuring storage versus selling it in constrained markets. Ms. Keefer clarified that the model demonstrates it is more cost-effective to pay the cost of curtailment rather than add additional battery resources to the portfolio.

COMMITTEE MEMBER COMMENTS

Committee Member Maloney thanked Mr. Bardacke for his presentation and remarked that the Alhambra City Council unanimously directed staff to put a motion on the next agenda for the city of Alhambra to move to the 100% Green tier. Chair Parkhurst congratulated Committee Member Maloney on a successful term as mayor.

ADJOURN

Chair Parkhurst adjourned the meeting at 2:14 p.m.



Staff Report – Agenda Item 2

To: Clean Power Alliance (CPA) Energy Committee
From: Geoff Ihle, Director of Market Risk
Approved by: David McNeil, Chief Financial Officer
Subject: August 2022 Risk Management Team Report
Date: September 28, 2022

August 2022 RMT REPORT

Key Actions

- Reviewed July 2022 market performance
- Reviewed July 2022 generation performance
- Reviewed energy positions and approved 2022-2025 hedges
- Reviewed positions for RPS and carbon free products
- Reviewed Resource Adequacy (RA) positions
- Reviewed August 2022 CRR Allocations

Policy Compliance

The following policy deviation was reported in the June 2022 RMT report. As noted in June, the deviation will persist through September 2022, as CPA acquires additional hedges to meet its Q2 and Q3 2023 hedge targets.

Policy Deviation	Required Action
Due to an update to the load forecast (resulting in higher forecast energy usage) and a delay in commercial online dates of two projects under long term contract (resulting in lower forecast supply), the Q2 and Q3 2023 periods did not meet the 85% Energy Risk Hedging Strategy minimum at the time of the June 26, 2022, measurement.	The ERMP does not require immediate action to address the policy deviation. Based on CPA's planned hedging activities over the next several months, the deviation is expected to be corrected by the end of September 2022.

ATTACHMENT

None.



Staff Report – Agenda Item 3

To: Clean Power Alliance (CPA) Energy Committee
From: Natasha Keefer, Vice President, Power Supply
Approved by: Ted Bardacke, Chief Executive Officer
Subject: Energy Procurement Update
Date: September 28, 2022

Staff will provide a presentation on the item.

ATTACHMENT

1. Energy Procurement Update

Energy Procurement Update

Item 3

September 28, 2022



Executive Summary

- ⚡ 2022 has been a busy year for energy procurement activity at CPA due to unprecedented market conditions impacting renewable energy development, the passing of the Inflation Reduction Act, as well as several procurements related to CPA Customer Programs
- ⚡ Today previews initial results from the 2022 Mid-Term Reliability RFO and other procurement items seeking action at the October Board meeting:
 - PPA Amendments from the PPA Refresh Pricing Process
 - Long-Term Resource Adequacy (RA) Agreement with SCE
 - Arlington Solar Plus Storage Amendment (next agenda item)
- ⚡ Look ahead at activities for the Energy Committee over the next several months

Agenda

- ⚡ Procurement Compliance
- ⚡ PPA Price Refresh Process
- ⚡ 2022 Mid-Term Reliability RFO
- ⚡ SCE Long-Term RA Agreement
- ⚡ Next Steps



Procurement Compliance



Mid-Term Reliability Decision

- ⚡ In June 2021, the CPUC issued its Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026) (CPUC Decision), which ordered CPA to procure a total of 679 MW of new reliable capacity between 2023-2026:

Resource Type	Online By			
	2023	2024	2025	2026*
Reliable Capacity (General)	118	354	89	
Baseload Renewables				59
Long-Duration Storage				59

*Because baseload renewables and long-duration storage technologies are considered long-lead time resources, the CPUC allows LSEs to request extensions to bring these resources online by June 1, 2028



MTR Compliance

⚡ CPA's current MTR compliance position:

	8/1/2023	6/1/2024	6/1/2025	6/1/2026
CPA Procurement Need - General	118.0	472.0	561.0	
CPA's Eligible Executed Contracts to Date	118.0	368.0	706.3	
Compliance Long / (Short)	0.0	(104.0)	145.3	
CPA Procurement Need – Baseload Renewables				59.0
CPA's Eligible Executed Contracts to Date				30.6
Compliance Long / (Short)				(28.4)
CPA Procurement Need – Long-Duration Storage				59.0
CPA's Eligible Executed Contracts to Date				0.0
Compliance Long / (Short)				(59.0)

PPA Price Refresh Process



Distressed Projects

- ⚡ Staff previously provided a briefing to the Board and Committees on the unusual industry-wide challenges that have strained energy developers' ability to deliver projects on-time and at cost, including disruptions to the supply chain, U.S. trade actions, rising commodity prices and war in Ukraine
- ⚡ Of the CPA portfolio of projects not yet online, 7 projects consisting of approximately 1,006 MW of solar and 578 MW of storage have indicated they are financially distressed due to these challenges, and price increases will be required in order to deliver on the projects
- ⚡ These 7 projects contribute to CPA's Mid-Term Reliability compliance obligations and CPA may be required to procure additional replacement capacity should they terminate
- ⚡ Staff commenced a process to consider offers to refresh prices and modify online dates so that CPA may make an informed decision on which contracts to consider amending ("PPA Price Refresh Process") and has now received offers from developers
- ⚡ The PPA Price Refresh Process was designed to elicit competitive offers amongst participants and ensure CPA shares in any incremental revenues counterparties may gain in the future due to favorable tax treatment resulting from the Inflation Reduction Act



PPA Price Refresh Guidelines

- ⚡ PPA Price Refresh Participants were required to submit an offer that adjust only their price and/or Commercial Online Date (COD), but could also submit additional offers for different terms (from 10 to 20 years), sizes, and configurations that result in the best value to CPA
- ⚡ Participants were required to submit statements explaining (i) why a price refresh is required to deliver on their contract (ii) project schedule, and (iii) project viability
- ⚡ Participants were required to waive their rights to litigation or damages resulting from their participation in this process or non-selection, e.g., bid preparation costs, lost opportunity
- ⚡ Participants were also asked to offer additional reductions to contract prices that become effective if ITC or PTC tax credits received exceed a specific benchmark
- ⚡ Existing force majeure claims would be settled and released as part of the amendment, if a project is selected for a contract amendment
- ⚡ Participants that are not selected will be left with their existing contract and obligations



Selection Considerations

- ⚡ The PPA Price Refresh Review Team evaluated proposed amendments on three key criteria:
 - Value (net present value/MW)
 - Contribution to MTR compliance
 - Project schedule and viability
- ⚡ Simultaneously, CPA received preliminary pricing for the 2022 MTR RFO offers, which provides a price benchmark of the cost of purchasing capacity from newly contracted projects to replace capacity lost in the event price refresh offers are not selected
 - ⚡ This replacement capacity would be necessary for both compliance needs and to serve customers
- ⚡ Allowing executed contracts to reprice reduces CPA's risk of compliance penalties, avoids higher costs to meet renewable energy demand and Resource Adequacy needs (spread between short and long-term contract costs), and supports the well-earned perception of CPA as an entity that meets its compliance and other obligations

Next Steps

- ⚡ The Review Team, including 3 Energy Committee members, reviewed the confidential proprietary offers and selected a subset of the offers that provided CPA with high value and high viability contracts that also minimize the risk of noncompliance with MTR
- ⚡ Staff is currently negotiating amendments with the projects in the recommended selection portfolio and, if parties can come to agreement on contract terms, staff will bring amendments to the Board for approval in October

2022 Mid-Term Reliability RFO



2022 MTR RFO Overview

- ⚡ CPA launched its 2022 Midterm Reliability RFO on August 1 with bids due on September 9
- ⚡ Eligible Projects:
 - Baseload/Firm Renewable Energy Contracts with a generation* size of 5 MW – 100MW and a commercial operation date no later than June 1, 2026
 - Long Duration storage (8+ Hours): Standalone storage or RPS-eligible generation paired with storage projects (40 MWh – 800 MWh in storage capacity) with a commercial operation date no later than June 1, 2026
 - 4-Hour Storage: Standalone storage or RPS-eligible generation paired with storage projects (40 MWh – 800 MWh in storage capacity) with a commercial operation date no later than June 1, 2025
- ⚡ Once valuation results are complete, the RFO Review Team will meet early-November (schedule TBD); the Energy Committee will consider a recommended project shortlist on November 23 (will poll Energy Committee for availability due to proximity with Thanksgiving)

*No storage qualifies for this product category (per CPUC requirements)

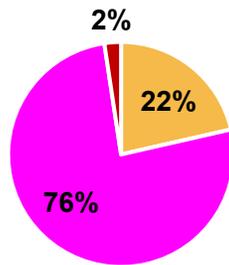
Offer Overview

Summary Stats	
Number of offers submitted	43
Number of conforming offers	42
Number of unique facilities offered	38
Number of sellers submitting offers	23
Counties spanned by submissions	15
States represented by offers	AZ, CA, NV
Number of new build offers	41
Number of existing facility offers	1
Number of RPS plus Storage offers	9
Number of RPS baseload offers	1
Number of offers from local storage only projects	8
Number of offers from local RPS projects	0
4-Hour storage offers	30
Long-duration (8+hours) storage offers	11
Earliest online date	7/1/2023
Latest online date	6/1/2026



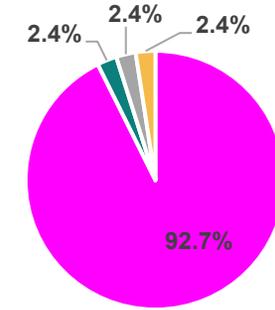
Offers by Product and Technology Type

Percentage of Offers by Project Type



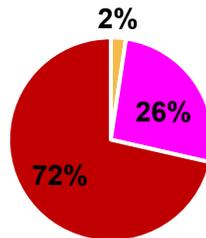
■ RPS Generation + Storage ■ Standalone Storage ■ Baseload/Firm Renewable Energy

Percentage of Offers by Storage Type



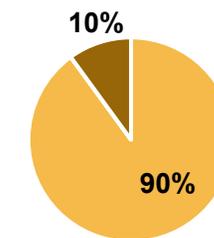
■ Lithium Ion ■ CAES ■ Flow Batteries ■ NaS Batteries

Percentage of Offers by Product Category



■ Baseload/Firm Renewable Energy ■ Long Duration Storage ■ 4-Hour Storage

Percentage of Offers by Generation Type



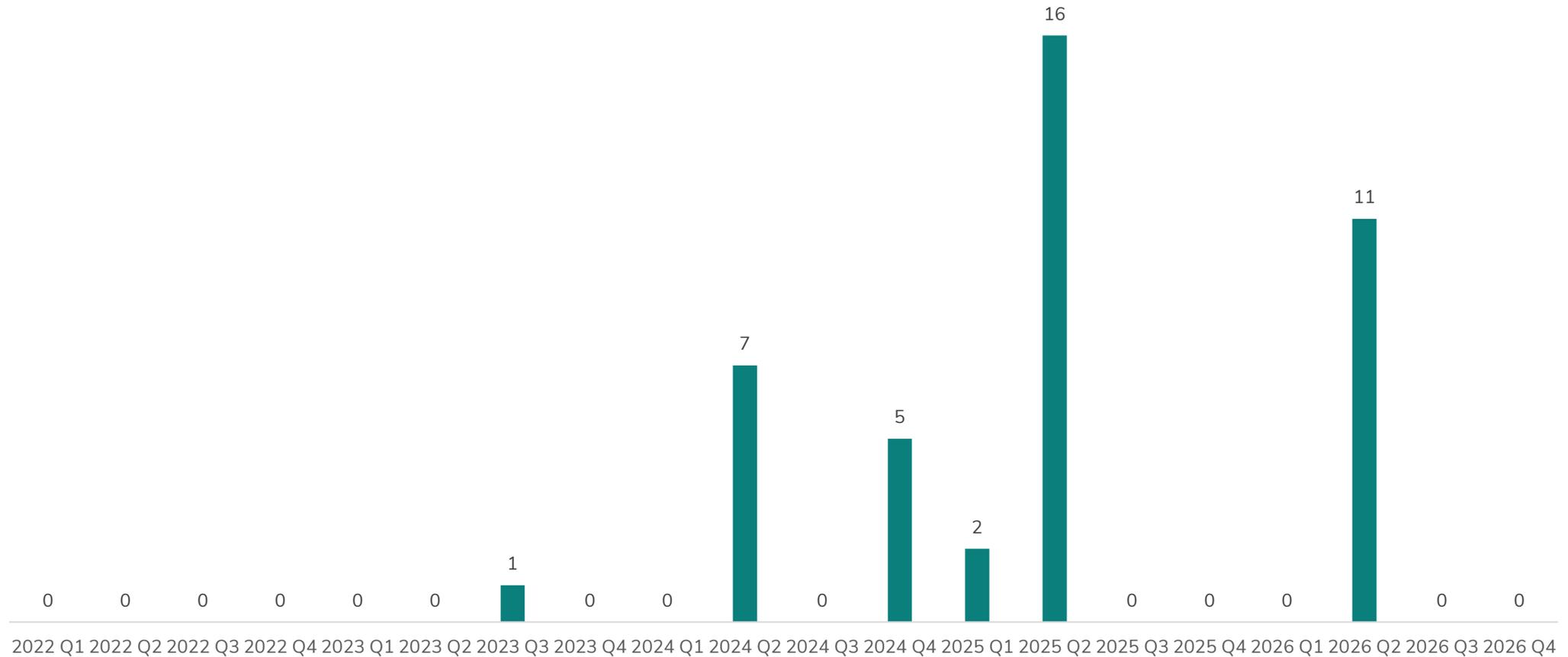
■ Solar Photovoltaic ■ Biomass/Biogas



Offers by Location

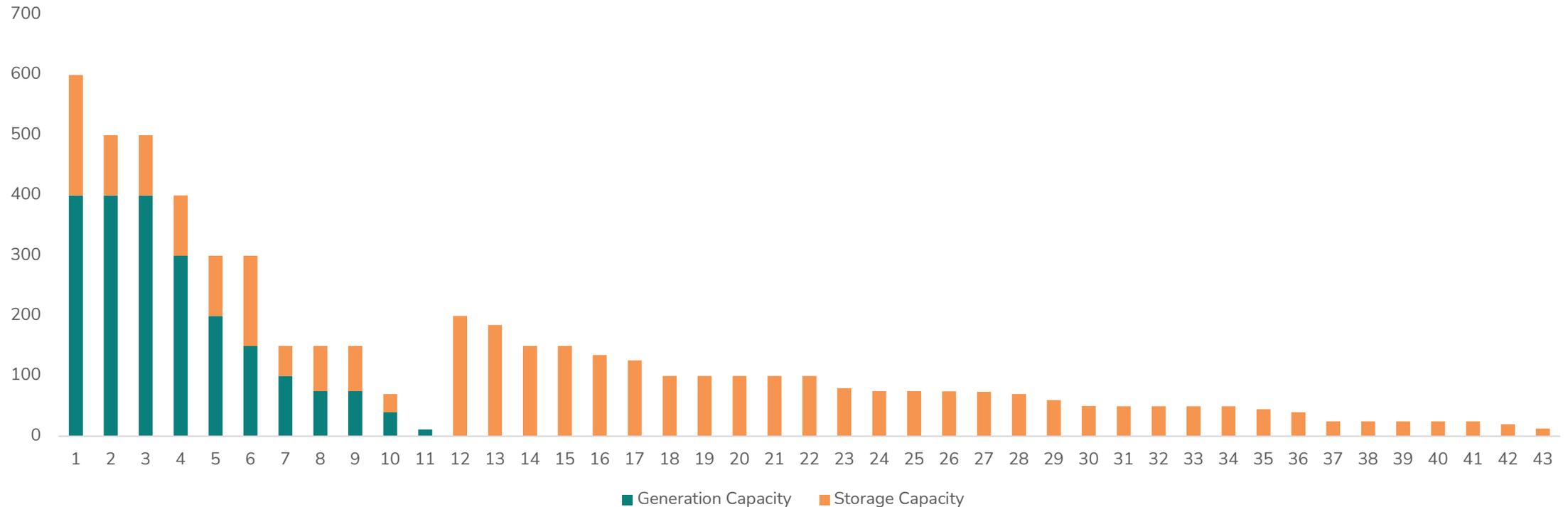


Offers by Commercial Online Date



Offers Ranked by Generation Capacity

Offers Ranked by Generation and Capacity (MW)



The RFO limited energy storage capacities to between 40 – 800 MWh, or 10 – 200 MW for a four-hour battery. For RPS plus storage projects, the storage capacity cannot exceed 100% of the generation nameplate capacity. Baseload/Firm products must have a capacity between 5 – 100 MW.



Key Considerations

- ⚡ Opportunities to procure baseload projects are extremely limited; CPA may need to run an additional RFO(s) to secure compliance
- ⚡ This RFO provides an opportunity to procure long-duration storage
- ⚡ Opportunities to procure 2024 online date projects are limited
- ⚡ Due to supply chain challenges and increased cost of inputs (labor, raw materials), PPA prices are higher in the 2022 RFO compared to the 2021 RFO
 - Elevated pricing may or may not persist in future years; CPA should focus on ensuring compliance while continuing its ratable procurement approach (i.e., incremental amounts per year to meet procurement target)



SCE Long-Term RA Agreement



Long-Term RA Agreement

- ⚡ Pursuant to CPUC Decision 22-05-015, SCE is required to make a one-time offer of Resource Adequacy (RA) capacity associated with its IRP Procurement Track procurement to CCAs on behalf of customers who had departed bundled SCE service between November 2019 and May 2022
- ⚡ CPA's Westlake Village load qualifies for this procurement offer
- ⚡ CPA has the option to enter into a bilateral agreement with SCE to acquire RA capacity from SCE's IRP Procurement Track resources, based on Westlake Village's relative load share, at the System RA Market Price Benchmark (i.e. market price)
- ⚡ The amount of RA available via this offer is small (less than 0.5% of CPA's annual need)
- ⚡ At the October Board meeting, CPA will be seeking Board consideration of the long-term RA agreement with SCE
 - This is an opportunity to secure scarce RA at a market rate
- ⚡ If CPA's Board approves the agreement, the agreement will subsequently need CPUC approval via a Tier 1 Advice Letter filed by SCE



Next Steps



Next Steps

⚡ Activities related to Mid-Term Reliability Compliance:

- PPA Refresh Process – Board to consider PPA amendments during October Board meeting
- Geothermal bilateral negotiations (previously approved by Energy Committee) – Board to consider PPA approval during November Board meeting
- Arlington bilateral negotiations – Energy Committee to consider approval of negotiations today, with Board to consider PPA approval during November Board meeting
- 2022 MTR RFO – Energy Committee to consider shortlist during November Energy Committee meeting

⚡ Activities related to Customer Programs:

- Power Ready – RFO materials in development and will launch in October (to be discussed during today's meeting)
- Power Share – Board to consider PPA approvals during the October, November, and/or December Board meetings

⚡ Other:

- Long-Term RA Agreement with SCE – Board to consider PPA approval during October Board meeting





Staff Report – Agenda Item 4

To: Clean Power Alliance (CPA) Energy Committee
From: Natasha Keefer, Vice President, Power Supply
Approved by: Ted Bardacke, Chief Executive Officer
Subject: Arlington Solar + Storage PPA Amendment
Date: September 28, 2022

RECOMMENDATION

Approve Staff to Proceed with Negotiations of an Amendment to the Power Purchase Agreement with Arlington Energy Center for Incremental Solar and Storage Capacity as Recommended by the Review Team

ATTACHMENT

1. Arlington Solar + Storage PPA Amendment

Arlington Solar + Storage PPA Amendment

September 28, 2022



Background

Action requested: Energy Committee's approval to proceed with negotiations for the incremental Arlington 93 MW solar and 12 MW storage capacity

- ⚡ Arlington is a 233 MW solar + 132 MW storage project in Blythe, CA, contracted with CPA
- ⚡ CPA had originally contracted for the full output of the facility (233 MW solar, 132 MW storage)
- ⚡ Due to a number of supply chain challenges affecting the renewable energy industry, CPA and Arlington amended the PPA, as approved by the Board on July 7, 2022, to reduce the project size to 140 MW solar and 120 MW storage, with a delayed online date of June 1, 2023
- ⚡ Included in the approved amendment was a right of first offer (ROFO) on the remaining 93 MW solar and 12 MW storage originally contracted to CPA
- ⚡ As described in the amendment, Arlington provided an offer to CPA for this capacity at a new price in September 2022
- ⚡ The confidential Review Team has evaluated this offer against its other PPA Price Refresh offers and preliminary results from the 2022 MTR RFO and is recommending that CPA proceed with negotiations
- ⚡ If the parties are successful in negotiating an amendment, the amendment is anticipated to be presented to the Board of Directors for approval consideration in November

Valuation and Viability

- ⚡ The pricing for the incremental 93 MW solar and 12 MW storage represents a material increase to CPA's original PPA
- ⚡ The standalone valuation showed that the Arlington offer is positive value (i.e. benefits expected to exceed costs)
- ⚡ The incremental capacity was compared with the PPA Refresh Process offers and was the second-highest value offer
- ⚡ The project is highly likely to be successful, given that it is an addition to an already existing project



Recommendation

- ⚡ Approve amendment negotiations for the incremental Arlington 93 MW solar and 12 MW storage capacity as recommended by the Review Team, for the following reasons:
 - The project is already partially online (100 solar and 132 WM storage is operational) and significantly de-risked compared to a new build resource
 - The incremental storage will qualify towards CPA's Mid-Term Reliability procurement requirements, helping CPA make progress towards its compliance target
 - The pricing for incremental capacity is competitive when compared to the PPA Price Refresh offers and preliminary results from the 2022 MTR RFO





Staff Report – Agenda Item 5

To: Clean Power Alliance (CPA) Energy Committee
From: Natasha Keefer, Vice President, Power Supply
Approved by: Ted Bardacke, Chief Executive Officer
Subject: 2022 Integrated Resource Plan (IRP) Scenario Results
Date: September 28, 2022

Staff will provide a presentation on the item.

ATTACHMENT

1. 2022 Integrated Resource Plan (IRP) Scenario Results

2022 Integrated Resource Plan (IRP) Scenario Results

September 28, 2022



Executive Summary

- ⚡ Since last month's meeting, staff has completed a number of scenarios that help inform key trends and the range of variability in long-term planning
- ⚡ CPA will only be submitting one base case for the IRP and is seeking feedback from the Energy Committee on proposed inputs
- ⚡ The CPUC recently released information that may change the nature of the IRP proceeding, which creates risk for CPA



Agenda

- ⚡ Base Case
- ⚡ Scenario 1
- ⚡ Scenario 2
- ⚡ Summary
- ⚡ Next Steps



Base Case



Base Case Results (Full Portfolio)

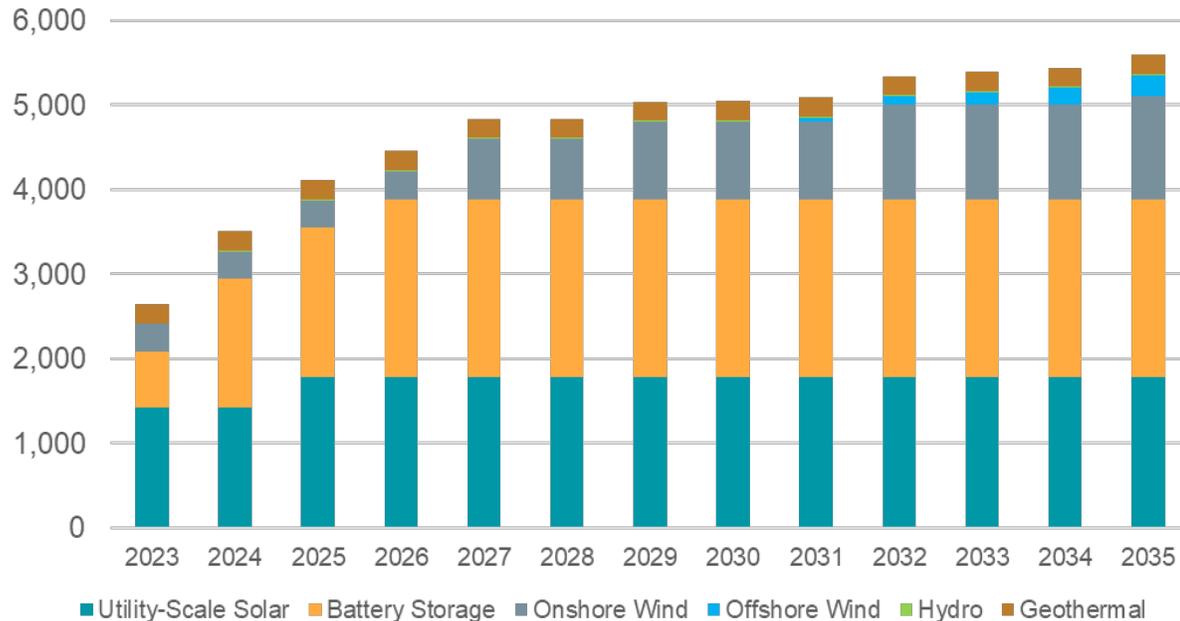
⚡ Key assumptions:

- **Load:** Mid-case (CPUC assigned)
- **Market Price:** Mid-case
- **Resource Costs:** CPUC assumptions
- **CPA RPS/CF Targets:** Low Scenario

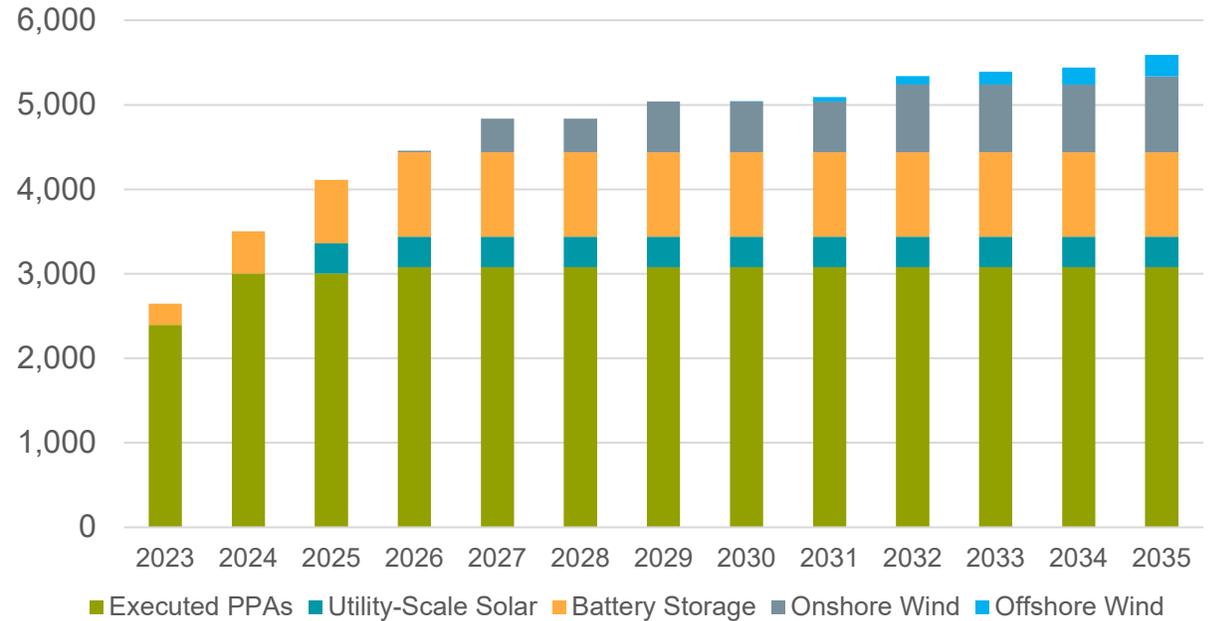


Includes CPA's existing long-term contracts, as well as additional resources to meet MTR compliance and bilateral geothermal contracts currently under negotiation

CPA Total Buildout (Cumulative MW) – by Technology



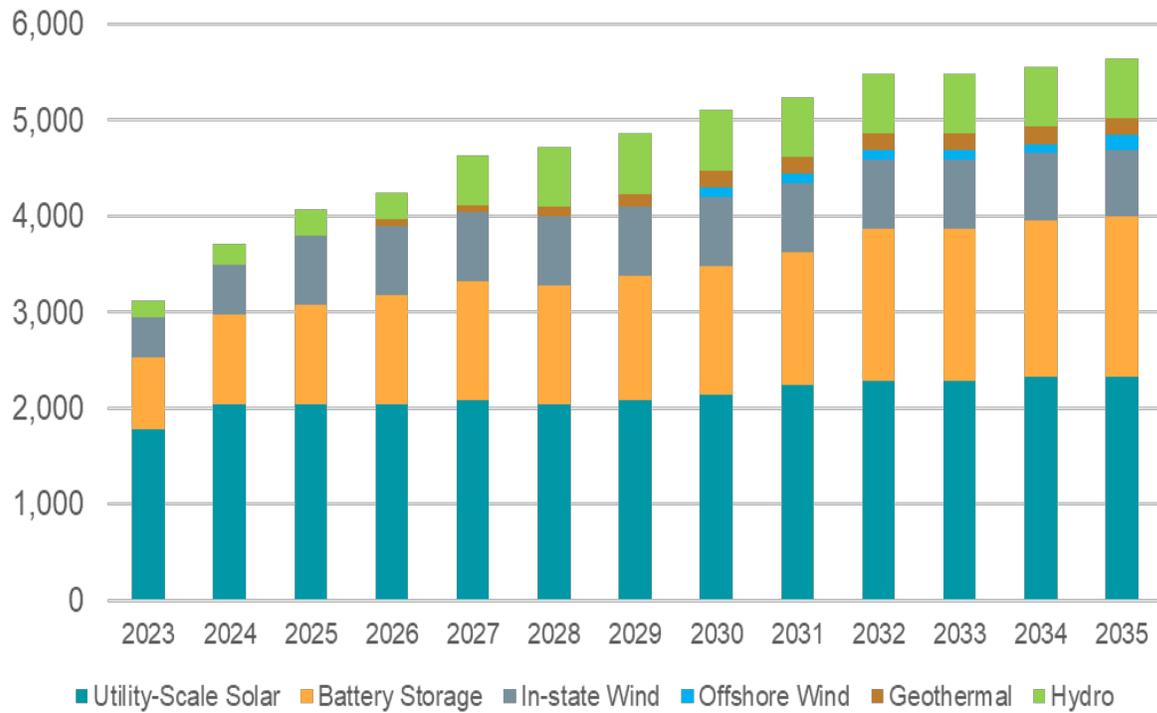
CPA Total Buildout (Cumulative MW) – by Technology



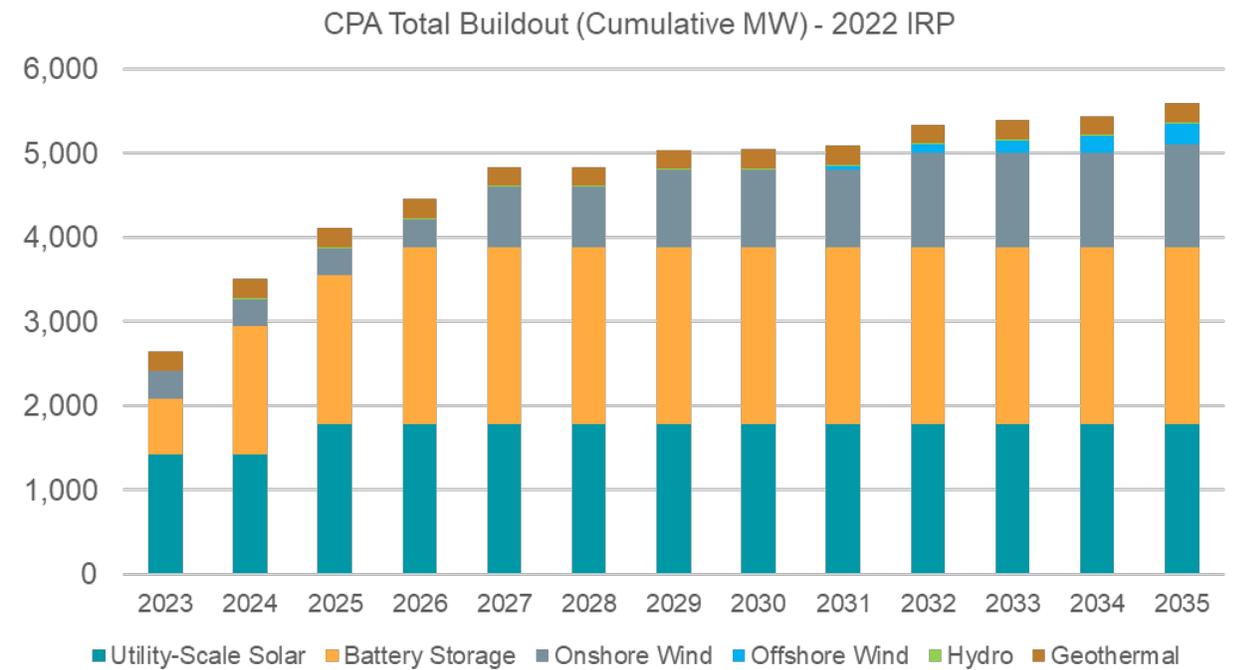
Comparison to 2020 IRP Results (Full Portfolio)

⚡ Adjusted battery storage price results in less battery buildout compared to previous run

CPA Total Buildout (Cumulative MW) – 2020 IRP

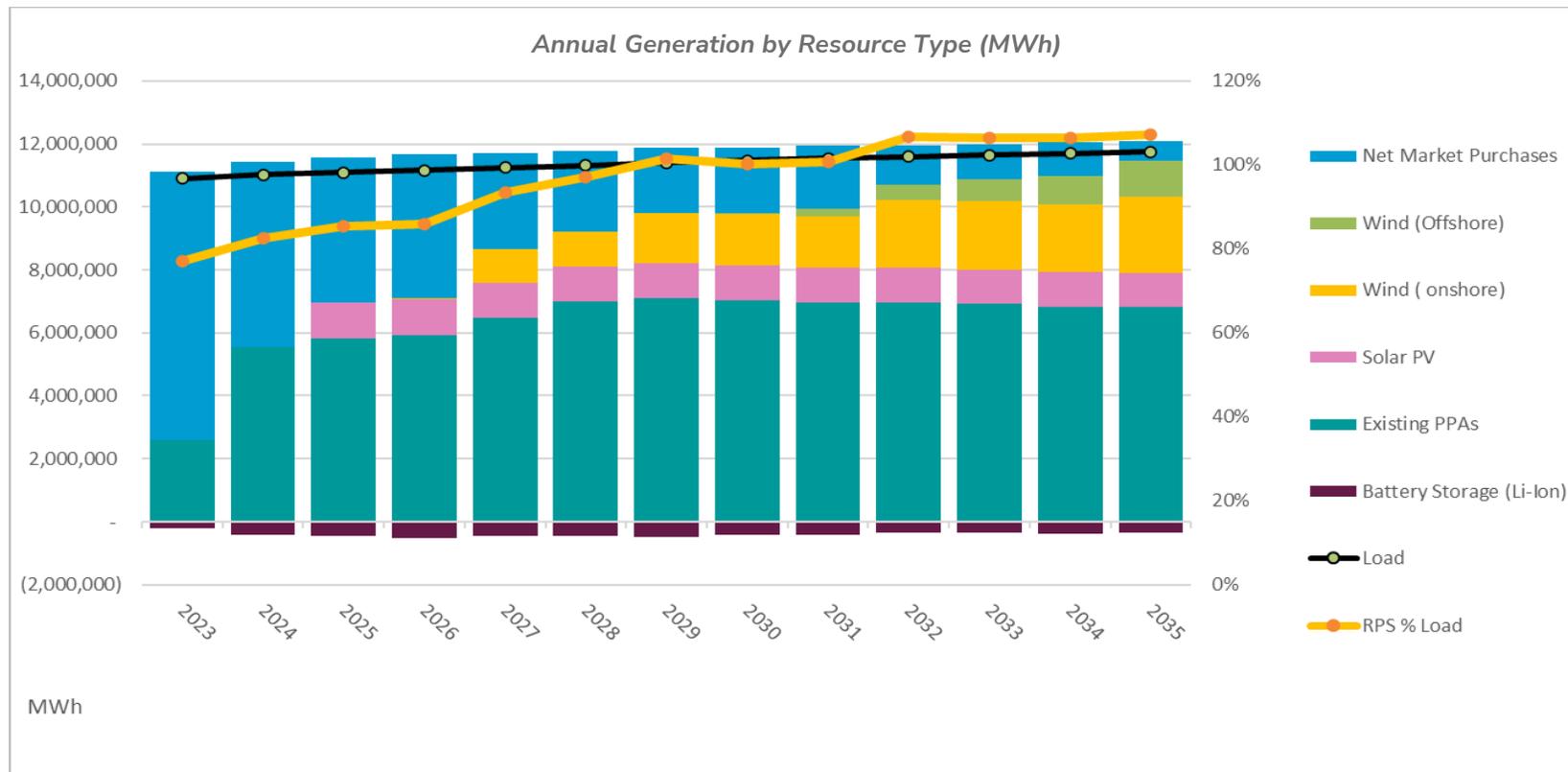


CPA Total Buildout (Cumulative MW) – 2022 IRP



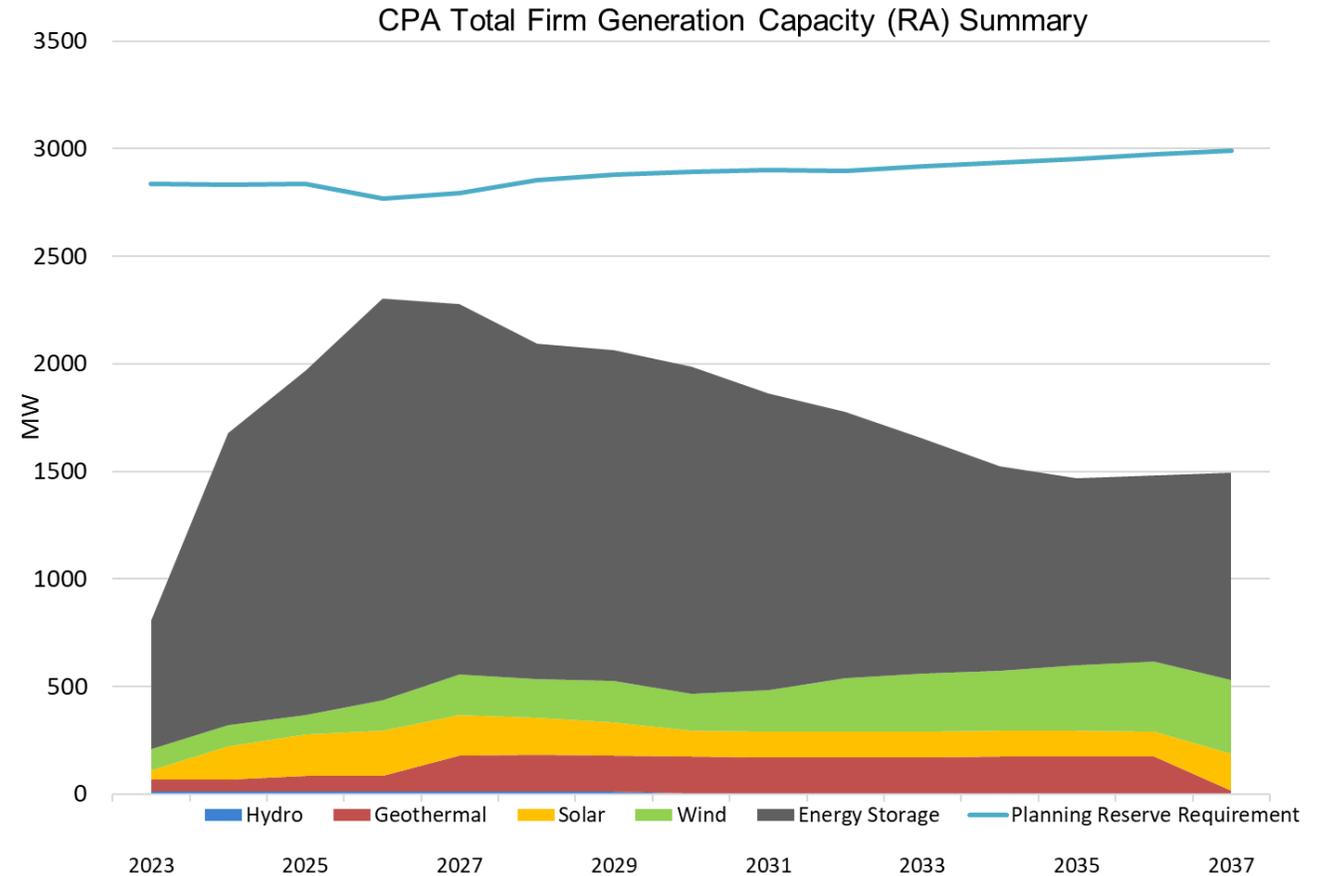
Generation

- ⚡ The RPS content of CPA's portfolio is far above the 60% RPS compliance mandate in all study years
- ⚡ Estimated 2035 GHG emissions is 0.72 MMT compared to CPUC requirement of 1.01 MMT

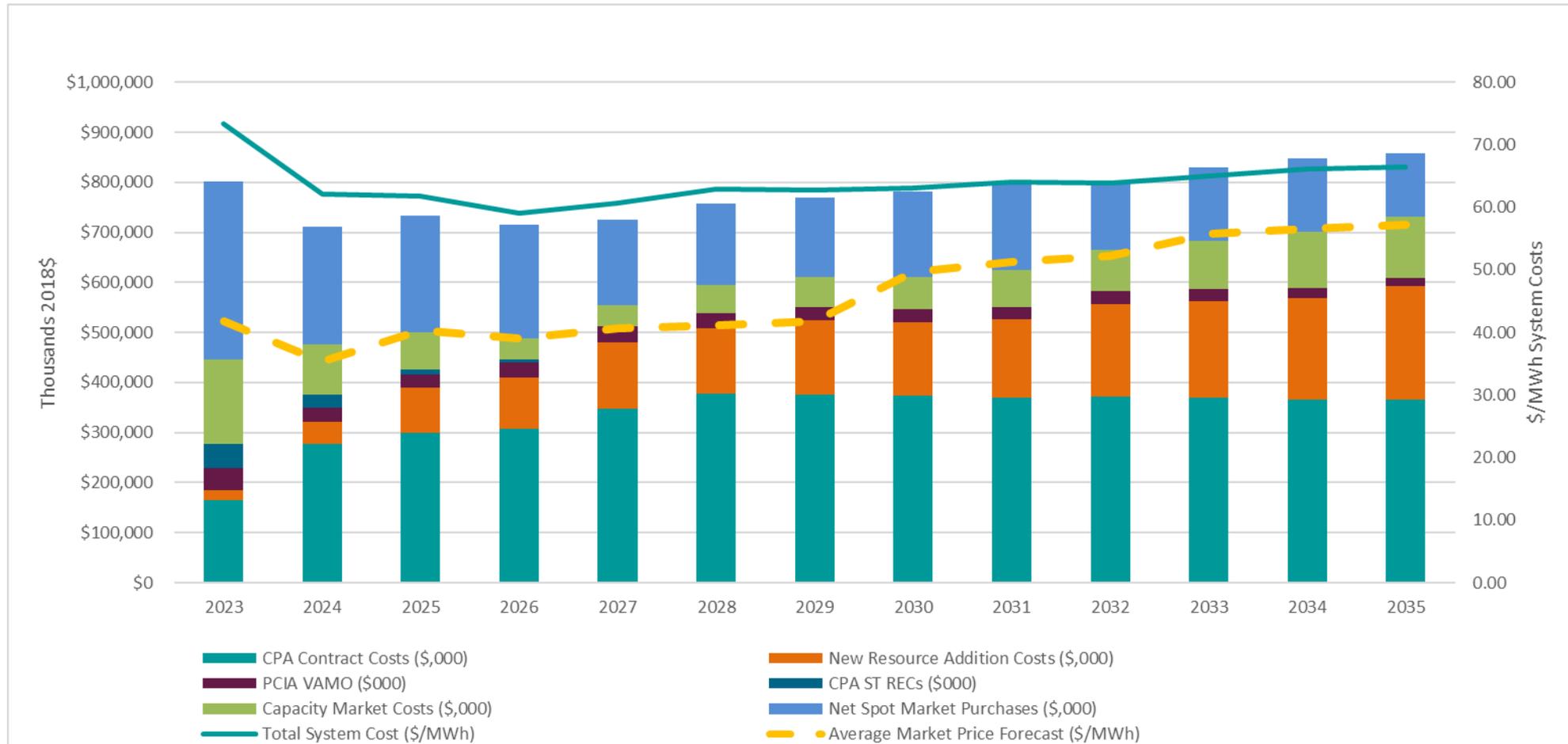


Reliability

- ⚡ The CPA RA open position will be met with short-term RA contracts with existing resources, as we do today
- ⚡ The open position is evaluated against the available existing RA resources statewide to ensure CPA are not over-relying on system resources



Procurement Cost Estimate



Scenario Overview

⚡ Scenario results are now available:

	Key Input	Base Case	Low Case	High Case
1	New build resource types and costs	CPUC assumptions, including resource RA accounting	N/A	CPA internal assumptions reflecting current market pricing and Inflation Reduction Act
2	Load forecast	CPUC-assigned	Low temps and high behind-the-meter	High temps and high electrification
3	Forecasted market power prices	Vendor mid-case	No Federal carbon tax	High gas prices
4	CPA renewable and carbon free targets (rate products)	Low Scenario	N/A	High Scenario

- ⚡ Scenarios 3 and 4 did not result in material changes to the buildout and will not be presented today
- ⚡ Scenarios 1 and 2 did result in material changes to the buildout and will be presented in the next slides
- ⚡ CPA will need to select one case for the IRP submission



Scenario 1 – Resource Costs

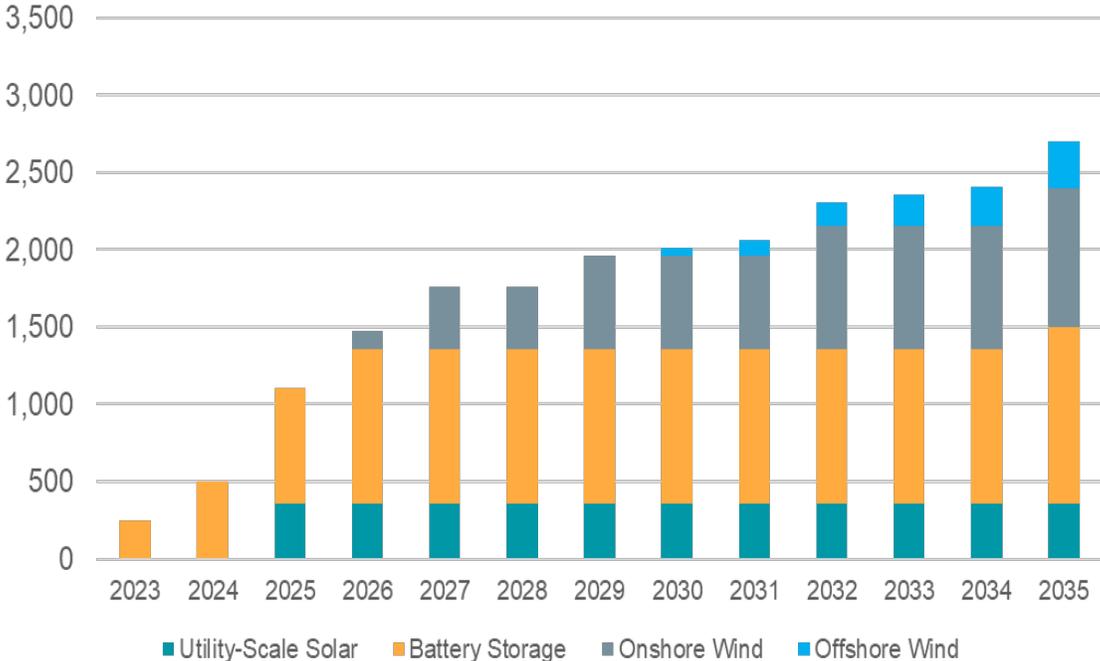


Resource Cost Scenario Results

- ⚡ Some of the CPUC’s resource cost assumptions are out of date with current market conditions and the Inflation Reduction Act; CPA adjusted these assumptions to reflect increased costs for solar, offshore wind, geothermal, storage
- ⚡ The updates to resource cost assumptions resulted in the removal of offshore wind, with more reliance on batteries and onshore wind

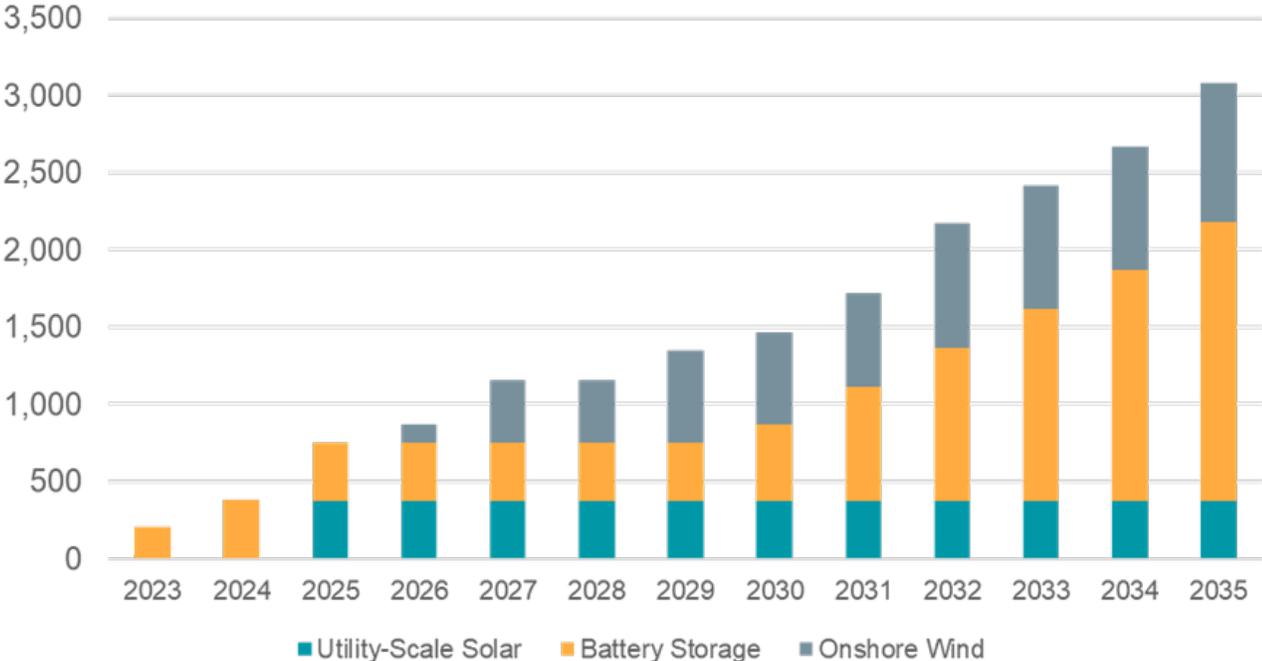
Base Case (CPUC Assumptions)

CPA New Resource Buildout (Cumulative MW)-2022 IRP



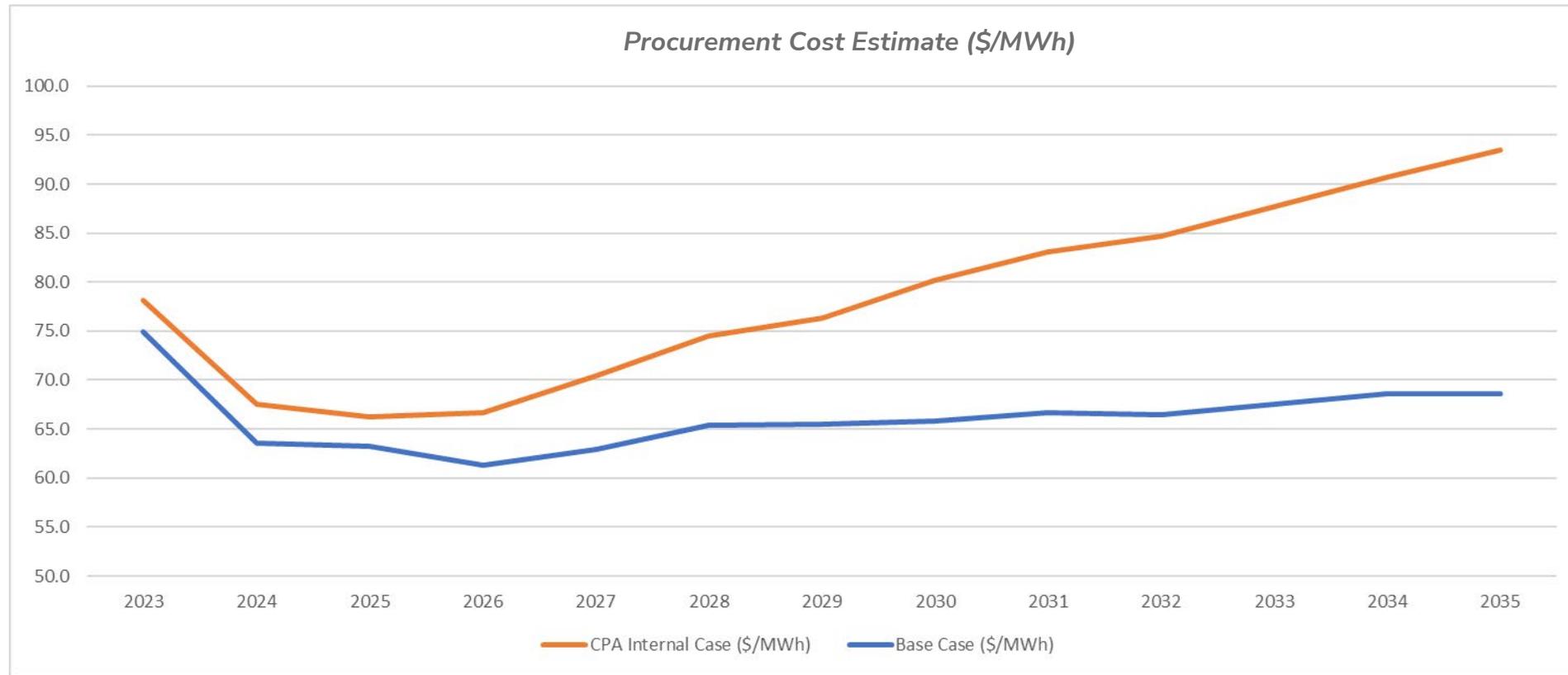
CPA Internal Case

CPA New Resource Buildout (Cumulative MW) - 2022 IRP



Procurement Cost Estimate

- ⚡ CPA's internal forecast assumes higher battery costs than the CPUC assumptions, this is the main candidate for incremental capacity
- ⚡ CPA's internal resource cost assumptions result in higher costs, particularly in the post 2030 period

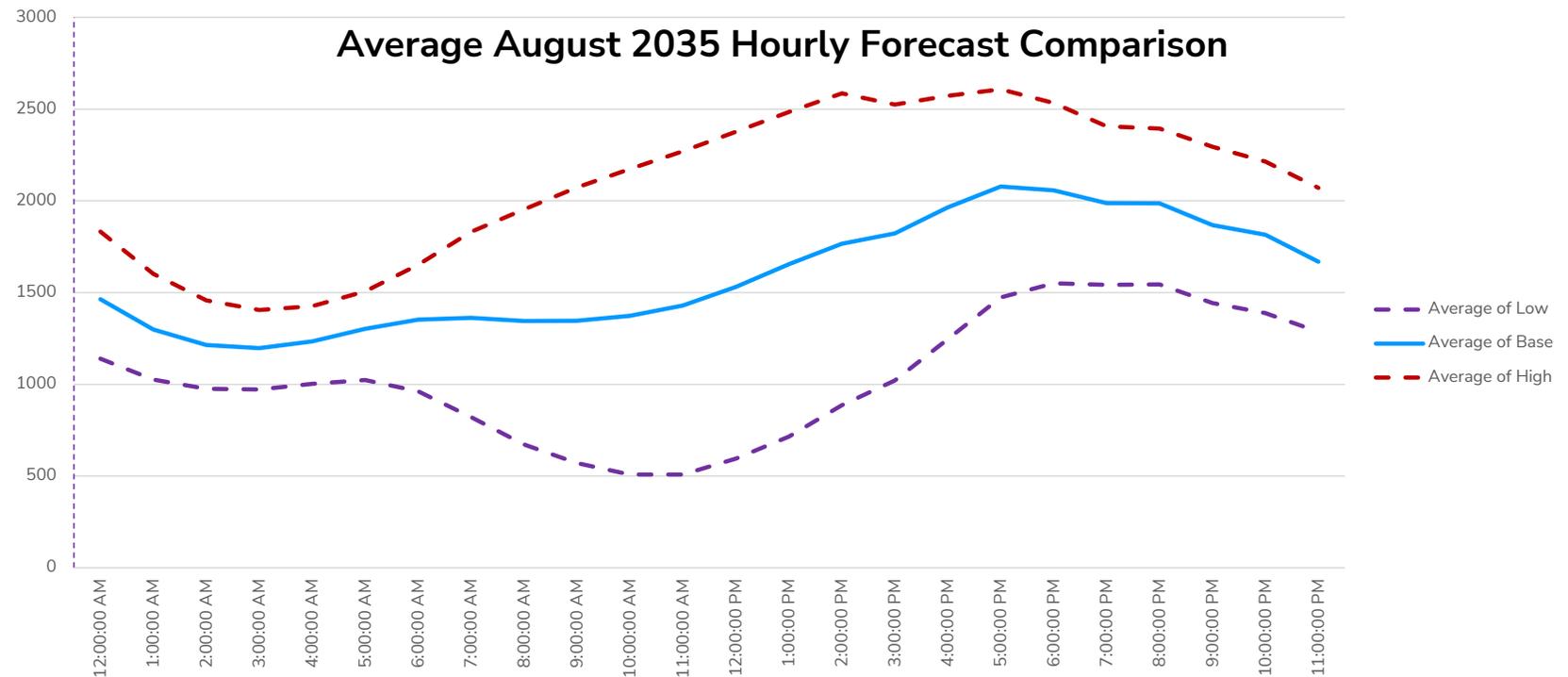


Scenario 2 – Load Forecast



Load Forecast Scenario Comparison

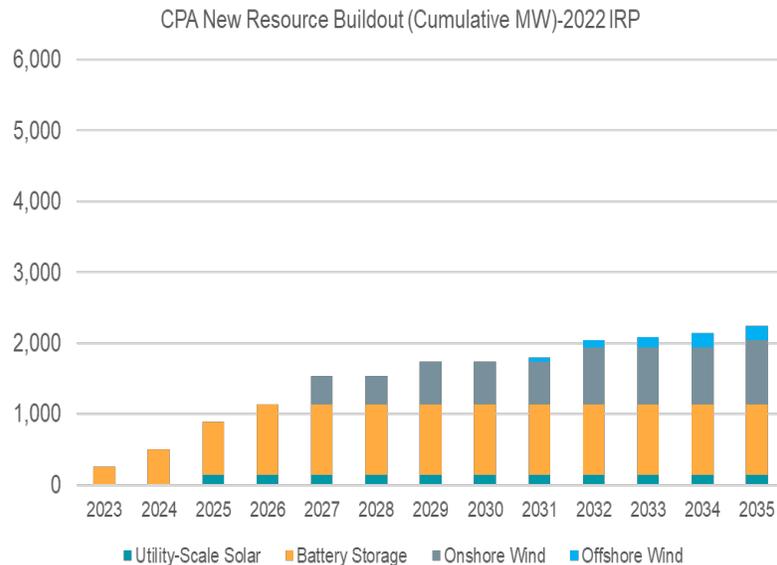
- ⚡ CPA ran three load forecasting scenarios:
 - **Low case:** Low temperatures, high behind-the-meter resources (load reducers)
 - **Base case:** CEC mid-case
 - **High Case:** High temperatures, high electrification
- ⚡ The scenarios impact both total annual GWh hours of load as well the hourly load profile shape



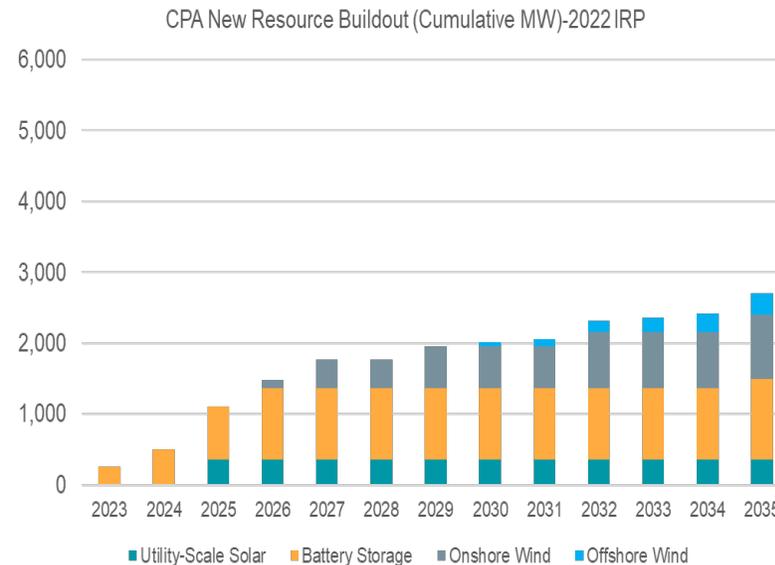
LF Scenario Capacity Buildout Results

⚡ The high electrification case results in a significant increase to the battery buildout

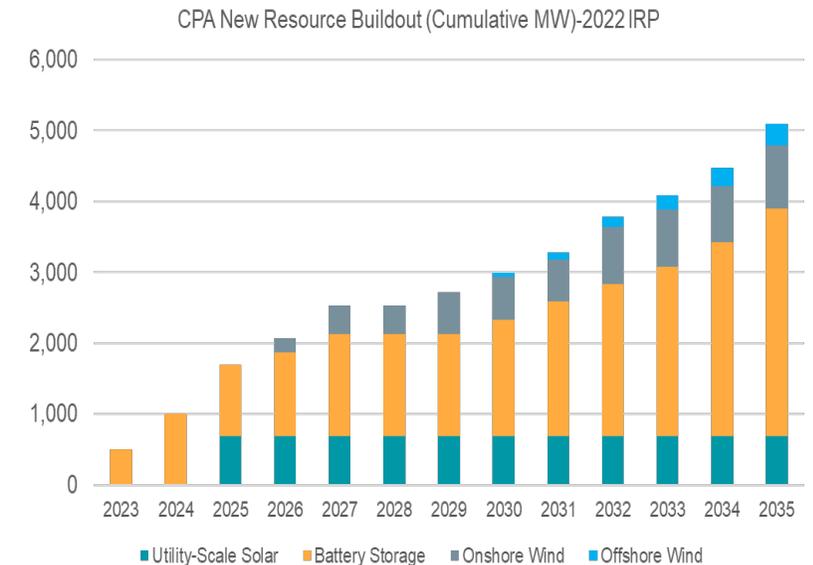
Low Case



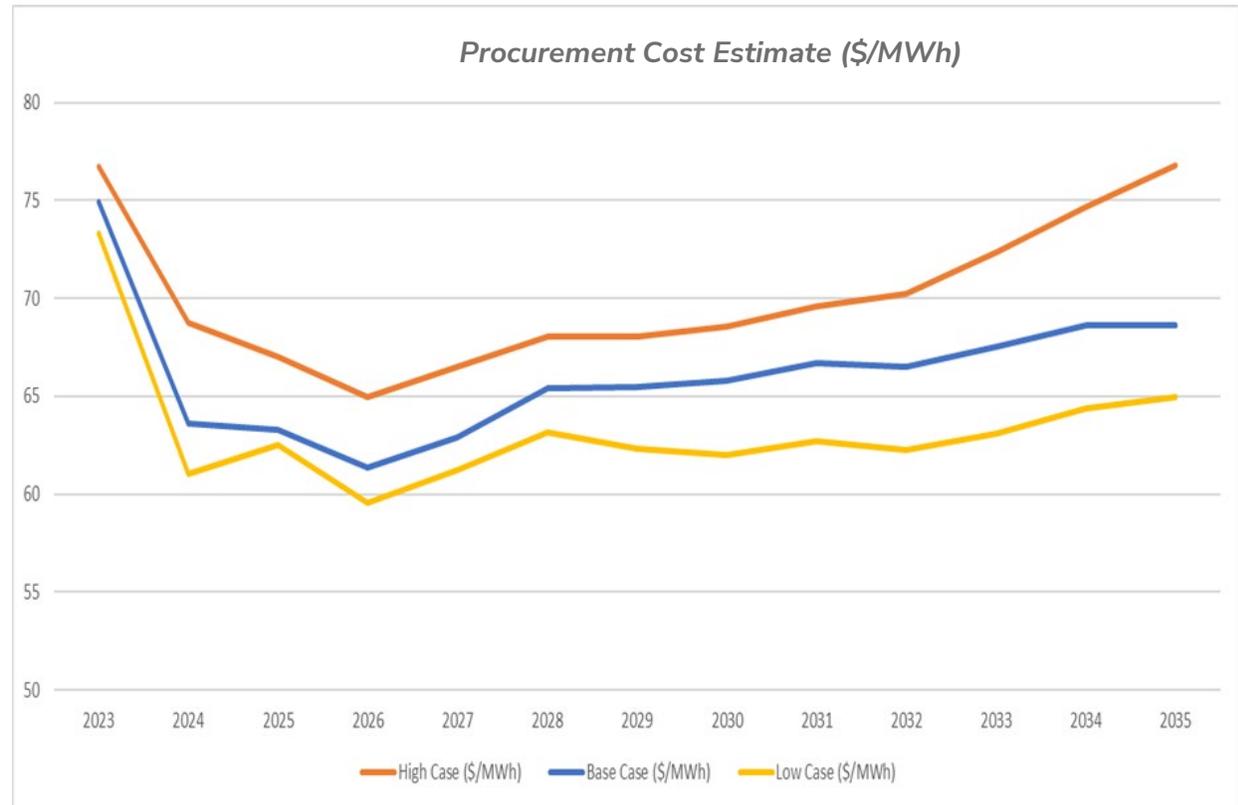
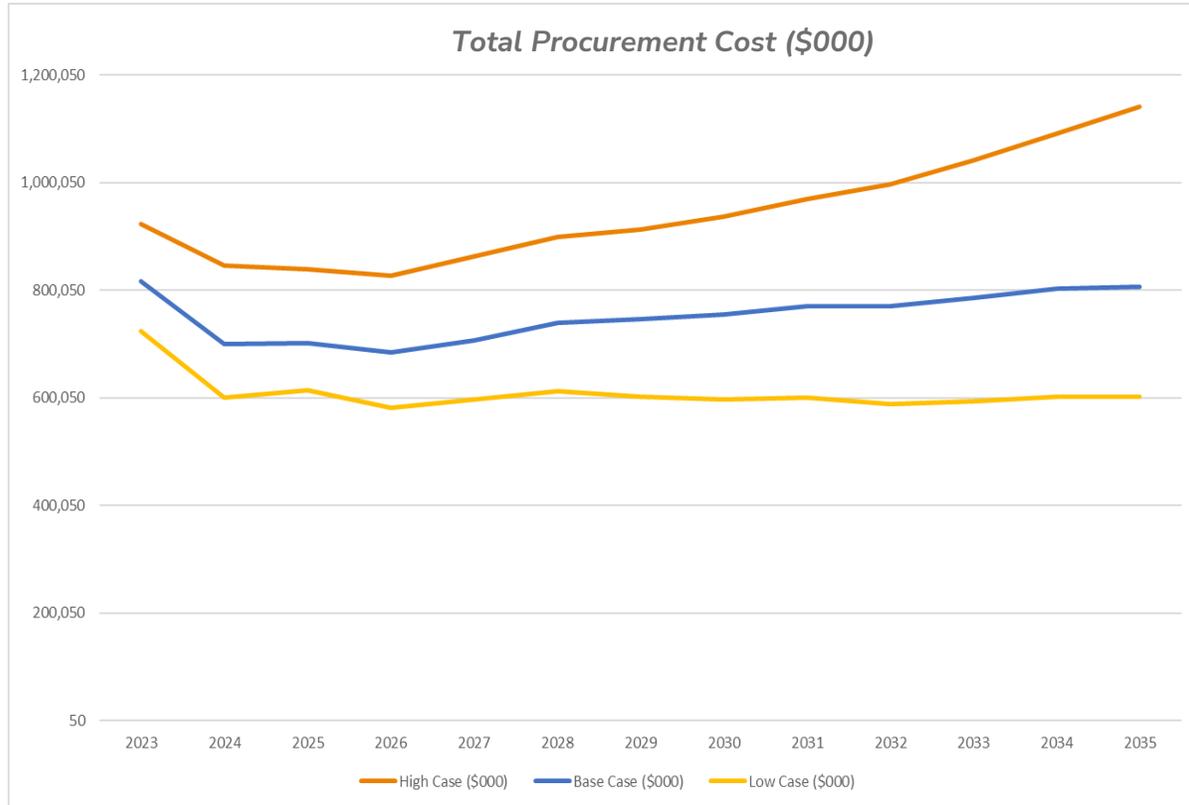
Base Case



High Case



Procurement Cost Estimate



Summary



Key Findings / Recommendation

- ⚡ Of the key modeling inputs, resource cost assumptions and load forecast have the largest impact to CPA's capacity buildout
- ⚡ Although the plan includes the development of approx. 3,000 MW of new resources, CPA's portfolio continues to rely on existing resources to meet its capacity requirements (although not relying more than our load share of system resources)
- ⚡ The proceeding requires that CPA use the CEC mid-case as the load forecasting scenario
- ⚡ The CPUC is allowing more leeway in the 2022 IRP for internal assumptions; therefore, staff recommends adopting the CPA internal resource cost case as its base case assumption
 - Reflects more conservative procurement cost forecast
 - Removes offshore wind from CPA's plan



Emerging Issues

- ⚡ On September 8, 2022, the CPUC Energy Division staff released a paper exploring options for the design of a mid-to-long-term procurement program for ensuring reliability and reducing greenhouse gas emissions
- ⚡ Part of this proposal included that the LSE IRP filings could be binding procurement mandates, starting with the 2022 IRP
- ⚡ CPA is working with CalCCA to file comments on November 7th opposing this proposal; however, CPA will not have clarity on this proposal until much later than the November 1st submission of the 2022 IRP (likely Q1 2023)
- ⚡ CPA is currently assessing whether this risk should be addressed in the IRP
- ⚡ CPA may need to convene a Special Meeting of the Energy Committee ahead of the November 1st filing deadline to discuss this issue further



Next Steps

- ⚡ The final IRP case will be refreshed after the October board meeting to reflect any newly approved PPAs or PPA amendments
- ⚡ Staff plans to proceed with the CPA Resource Cost case as the base case submittal to the CPUC
- ⚡ CPA is assessing the risk of the CPUC mandating that the 2022 IRP results be a binding procurement plan





Staff Report – Agenda Item 6

To: Clean Power Alliance (CPA) Energy Committee
From: Natasha Keefer, Vice President, Power Supply
Approved by: Ted Bardacke, Chief Executive Officer
Subject: Power Ready Request for Offers
Date: September 28, 2022

Staff will provide a presentation on the item.

ATTACHMENT

1. Power Ready Request for Offers

Power Ready Request for Offers (RFO)

September 28, 2022



Agenda

- ⚡ Power Ready Program Overview
- ⚡ Request for Offers
- ⚡ Next Steps

Power Ready Program Overview



Power Ready Overview

What is Power Ready?

- ⚡ Power Ready is a resiliency program where CPA member agencies have the opportunity to host a solar powered battery storage system at a facility that provides a critical community or municipal function in times of an outage.

How Does it Work?

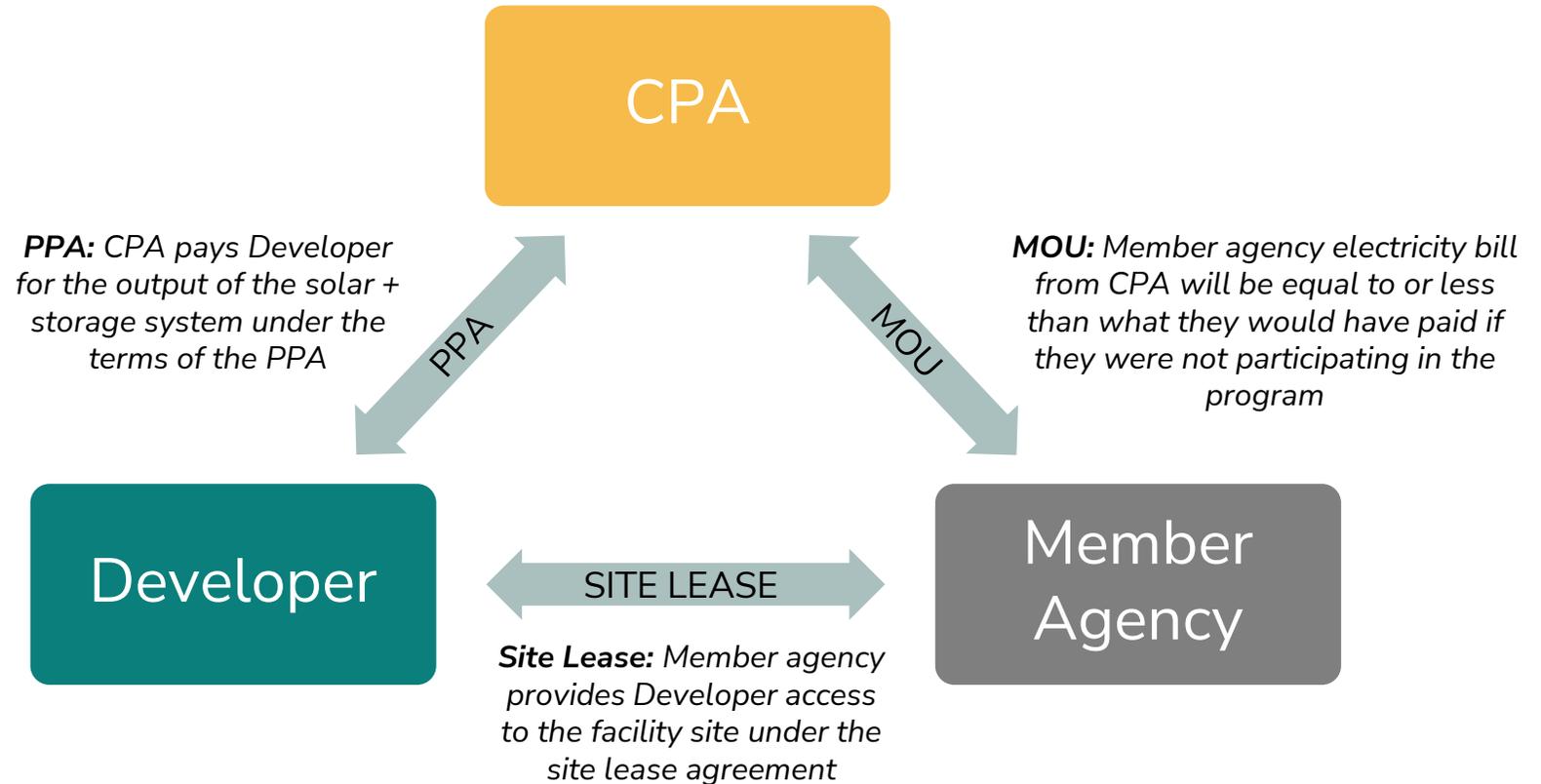
- ⚡ Batteries can be discharged at peak times to provide more cost-effective electricity prices for our customers.
- ⚡ During outages, the member agency will get the benefit of islanded backup power.

Types of Facilities:

- ⚡ Community Centers/Parks
- ⚡ City Halls/Civic Centers
- ⚡ Police/Fire Stations
- ⚡ Public Works
- ⚡ Other

How Does This Work?

- ⚡ Developer develops, owns, operates the solar + storage system for a 20-year term
- ⚡ CPA is the PPA buyer
- ⚡ CPA benefits from solar + storage system during normal operating times
- ⚡ Member agency serves as the site host
- ⚡ Member agency uses system as back-up power during outages
- ⚡ No cost will be passed to the member agencies

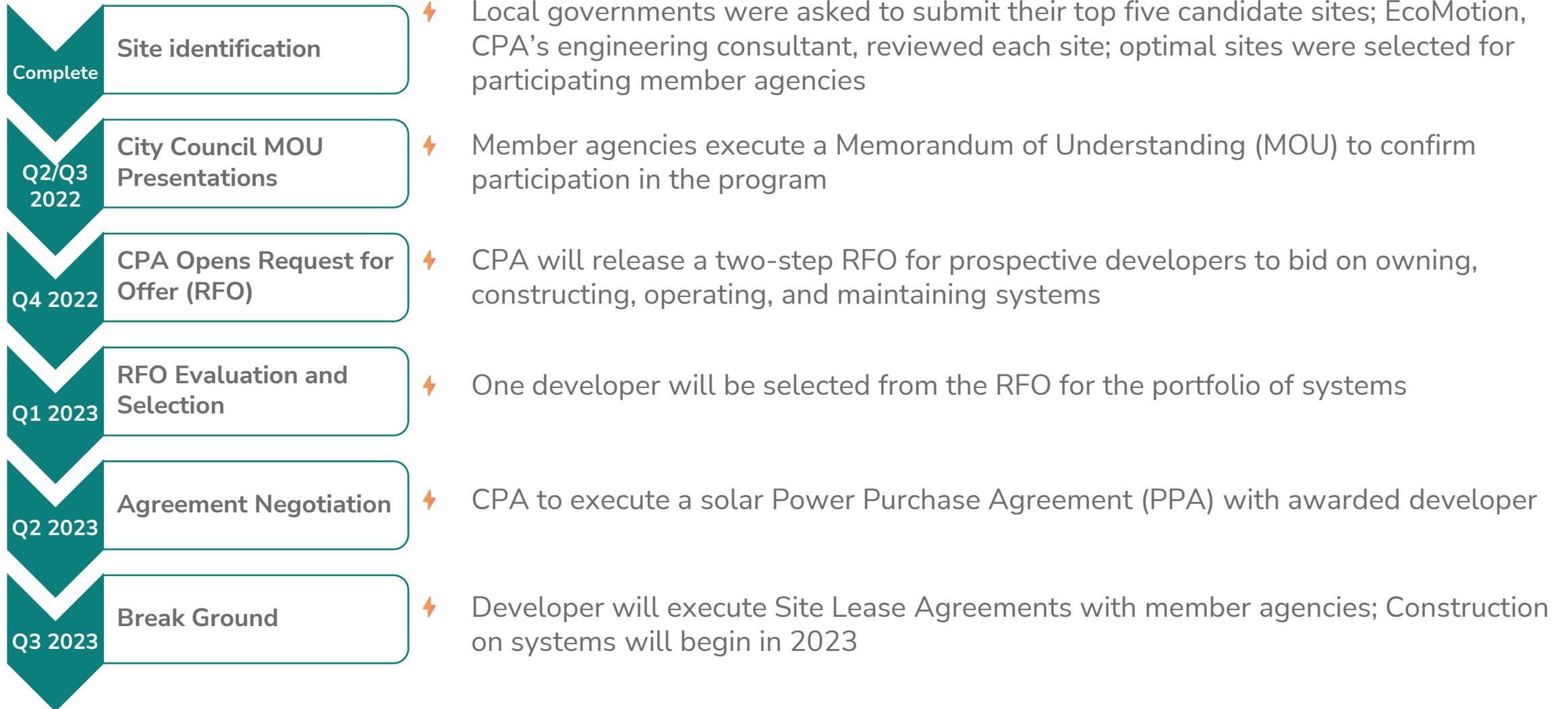


Participation

⚡ To date, 9 member agencies have confirmed participation in the program, across 12 different sites:

Member	City Council Approved:	Project PV Size (kW)	Project BESS Size (kWh)
Agoura Hills	Yes	166	400
Beverly Hills	Yes	107	267
LA County - Hacienda Heights Library	Pending	74	133
LA County - Claremont Library		92	267
LA County - Paramount Library		92	133
Oxnard	Yes	195	400
Sierra Madre	Yes	197	267
South Pasadena	Yes	231	667
Ventura County - Ojai / Oak View	Yes	94	267
Ventura County (Simi Valley FD)	Yes	44	133
West Hollywood	Pending	181	267
Westlake Village	Pending	232	400
TOTAL		1.7 MW	3.6 MWh

Timeline



Request for Offers



Developer Responsibilities

CPA will execute a 20-year PPA with the awarded developer and pay a fixed \$/MWh rate for the output of the solar plus storage systems. Under the PPA, the developer must:

- ⚡ Secure site control by executing a site lease with member agency (pro forma agreement to be included in RFO) and all other necessary permits
- ⚡ Design, permit, finance, and construct solar and storage systems to CPA's specifications
 - Sizing and specifications include member agency design considerations as collected by EcoMotion during site visits
 - Systems may include rooftop or carport solar, depending on individual site specifications
- ⚡ Operate and maintain the systems during the life of the contract, including dispatching the battery per CPA's instructed use cases (peak load reduction or demand response)
- ⚡ Ensure system will island during an outage event and allow the solar and battery system to meet member agencies critical on-site loads
- ⚡ Meet performance obligations for routine and emergency operations as defined in the PPA
- ⚡ Once the term of the PPA has concluded, developer is responsible for decommissioning the system and site restoration

Power Ready RFO Process

- ⚡ The RFO will be a two-step process to qualify bidders:
 1. CPA will release a public version of the RFO and seek initial offers from bidders. Based on these submissions, CPA will select bidders to participate in the second-round
 2. CPA will release confidential site information (detailed site plans, member agency billing data, etc.) to selected bidders to present a best and final offer
- ⚡ Following CPA's standard RFO review process, an RFO Review Team will evaluate final submission and make a recommendation to Energy Committee for approval
- ⚡ Minimum developer qualifications and experience
 - Proof of applicable state licenses – e.g., Electrical (C-10), Solar Contractor (C-46), and General Building Contractor (B)
 - Must demonstrate previous experience with installing, owning, and operating solar plus batteries systems and/or microgrids, preferably for municipal facilities in Southern California and with Southern California Edison interconnection
 - Must demonstrate the financial strength to underwrite a project of this size

RFO Selection Criteria

- ⚡ Given the unique nature of Power Ready, the selection criteria for the offers will be customized to the program:

Price/Value

Developer
Experience and
Qualifications

Workforce
Development

Schedule/Project
Delivery Plan

- ⚡ CPA will include the following workforce development requirements for all projects:
 - Prevailing wage required
 - Additional preferences for Project Labor Agreements (PLAs), targeted hire, and other workforce development criteria to be developed



Next Steps



Next Steps

- ⚡ Participating member agencies will have the opportunity to review site lease and the RFO materials prior to release
 - Drafts to be shared with member agency staff in October
- ⚡ An RFO Review Team, including a subset of the Energy Committee members, will be formed by the end of the year, with an expected meeting date in January (to be finalized once final RFO schedule is set)