

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

Order Instituting Rulemaking to Continue)	
Implementation and Administration, and Consider)	
Further Development, of California Renewables)	Rulemaking 18-07-003
Portfolio Standard Program.)	
_____)	

**FINAL 2022 RENEWABLES PORTFOLIO STANDARD
PROCUREMENT PLAN OF SONOMA CLEAN POWER AUTHORITY
[REVISED]**

PUBLIC VERSION

Dated: December 19, 2023

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In accordance with the California Public Utilities Commission’s (“Commission”) April 11, 2022 *Assigned Commissioner and Assigned Administrative Law Judges’ Ruling Identifying Issues and Schedule of Review for 2022 Renewables Portfolio Standard Procurement Plans and Denying Joint IOUs’ Motion to File Advice Letters for Market Offer Process* (“ACR”) and January 19, 2022 Decision (“D.”) 22-12-030, *Decision on 2022 Renewables Portfolio Standard Procurement Plans* (“D.22-12-30”), and the November 29, 2023 *Administrative Law Judge’s Ruling Granting ESP Parties’ Motion (“November Ruling”)*, Sonoma Clean Power Authority (“SCPA”) hereby submits this Revised Final 2022 Renewables Portfolio Standard Procurement Plan (“RPS Procurement Plan”).

SCPA notes that certain issues and requests in these ACR sections apply to the other retail sellers (electrical corporations and electric service providers), and do not extend to Community Choice Aggregators (“CCAs”). SCPA is nevertheless voluntarily responding to these ACR sections in the interest of transparency and in order to collaborate with the Commission. However, the submission of this RPS Procurement Plan pursuant to the ACR, should not be construed as a waiver of the right to assert that components of the 2015 Senate Bill (“SB”) 350 or

Commission decisions and rulings on RPS Procurement Plan submittals do not extend to CCAs.

SCPA reserves the right to challenge any such assertion of jurisdiction over these matters.

I. Major Changes to RPS Plan

This Section describes the most significant changes between SCPA's Draft 2022 RPS Procurement Plan and its Final 2022 RPS Procurement Plan. A redline of this Final 2022 RPS Plan against SCPA's Draft 2022 RPS Plan is included as Appendix A. The table below provides a list of key differences between the Draft 2022 and Final 2022 RPS Procurement Plans:

Plan Reference	Plan Section	Summary/Justification of Change
2022 RPS Procurement Plan: Section III	Summary of Legislation Compliance	Updated to add discussion of SB 255.
2022 RPS Procurement Plan: Section IV	Assessment of RPS Portfolio Supplies and Demand	Added discussion on Voluntary Allocation and Market Offer ("VAMO") and updated optimization discussion to reflect framework for 2022 Integrated Resources Planning ("IRP") process evaluation.
2022 RPS Procurement Plan: Section IV.B	Responsiveness to Local and Regional Policies	Added outcome of Local Resource Plan solicitation and introduced SCPA GeoZone initiative to grow local geothermal capacity.
2022 RPS Procurement Plan: Section IV.B.1	Long-term Procurement	Updated discussion to include impact of recent procurement.
2022 RPS Procurement Plan: Section IV.C	Portfolio Diversity and Reliability	Added discussion of role of storage and baseload renewables in SCPA's portfolio and updated description of load forecast assumptions.
2022 RPS Procurement Plan: Section V	Project Development Status Update	Updated to include discussion of SCPA's expanded queue of development projects and remove successfully completed projects. Included additional discussion per the Commission's December 15, 2022 Decision on 2022 Renewables Portfolio Standard Procurement Plans.

2022 RPS Procurement Plan: Section VII	Risk Assessment	Updated to better reflect SCPA’s current assessment of RPS risk, including relative severity and scenario used to calibrate Minimum Margin of Procurement (“MMoP”).
2022 RPS Procurement Plan: Section IX	Minimum Margin of Procurement	Updated to reflect revised approach to calibrate MMoP using risks specific to SCPA’s development queue.
2022 RPS Procurement Plan: Section X	Bid Solicitation Protocol	Updated to include discussion of recent solicitations.
2022 RPS Procurement Plan: Section XIII	Curtailment Frequency, Forecasting, and Costs	Updated tables and calculations with current information.
2022 RPS Procurement Plan: Section XV	Coordination with the Integrated Resource Planning Proceeding	Updated to describe differences between RPS Procurement Plan and 2021 IRP and projected changes in the 2022 IRP.

II. Executive Summary

SCPA is reflecting changes to specific items to its 2022 Draft RPS Procurement Plan identified in D.22-12-030 in its 2022 Final RPS Procurement Plan. SCPA is aware that market conditions, SCPA’s portfolio modeling, and load forecasting capability, risk characterization, and procurement activity continue to be dynamic, and SCPA’s current RPS procurement strategy may differ from the details submitted in SCPA’s 2022 Draft RPS Procurement Plan. Rather than reflect these changes in SCPA’s 2022 Final RPS Procurement Plan, SCPA will instead implement them in its 2023 Draft RPS Procurement Plan and 2023 Integrated Resource Plan (“IRP”). This will ensure that the 2022 Final RPS Procurement Plan remains in alignment with the 2022 IRP. SCPA remains committed to exceeding its RPS compliance obligations and mitigating procurement risks.

Energy market conditions are increasingly dynamic. SCPA is responding to this challenge through an increase in sophistication to its portfolio modeling, load forecasting capability, risk characterization, and procurement activity. Although SCPA is still finalizing its long-term procurement strategy for the 2022 Integrated Resource Plan, this 2022 Final RPS Procurement Plan provides the latest representation of SCPA's procurement activity.

SCPA is not planning any territory expansion at this time. Recent departure of customers to direct access and robust growth in behind-the-meter solar caused a decrease in load in the last few years. However, SCPA expects this trend to reverse as electrification of the transportation and building sectors continues to grow.

SCPA remains committed to exceeding its RPS compliance obligations and mitigating procurement risks based on its Board of Directors' RPS expectations. This filing provides an update on the status of projects under development and an updated portfolio risk assessment. SCPA is in the process of procuring local resources per Board of Directors orders and fulfilling Commission-mandated procurement to meet reliability requirements. An update on procurement activities is included in this report.

III. Summary of Legislation Compliance

This RPS Procurement Plan addresses the requirements of all relevant legislation and the Commission's regulatory framework. This Section describes the relevant statutory and regulatory requirements and demonstrates that this RPS Procurement Plan meets or exceeds all requirements.

Governor Brown signed SB 350 on October 7, 2015. SB 350 set a new RPS procurement target of 50% by December 31, 2030. On December 20, 2016, the Commission issued Decision ("D.") 16-12-040, which partially implemented the increased targets of SB 350 by establishing

new compliance periods and procurement quantity requirements. On July 5, 2017, the Commission issued D.17-06-026, which implemented some of the key remaining elements of SB 350, including adopting new minimum procurement requirements for long-term contracts and owned resources, as well as revising the excess procurement rules.

On September 10, 2018, Governor Brown signed SB 100, which became effective on January 1, 2019. SB 100 increased the RPS procurement requirements to 44% by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. On June 6, 2018, the Commission issued D.18-05-026, which implemented changes made by SB 350 to the RPS waiver process and reaffirmed the existing RPS penalty scheme. In July of 2018, the Commission issued Rulemaking (“R.”) 18-07-003 to continue the implementation of the RPS. On May 22, 2019, the Commission issued a Proposed Decision that would continue to use a straight-line method to calculate compliance period procurement quantity requirements.

SCPA’s Renewable Net Short Calculation Table incorporates current RPS procurement targets as described in Section VIII below and attached as Appendix B. SCPA’s current and planned procurement, is sufficient to exceed these targets, as reflected in SCPA’s Renewable Net Short Calculation Table and described in Sections IV and V. SCPA’s RPS procurement targets also include a minimum margin of over-procurement based on SCPA’s risk assessment, and is further described in Sections VII and IX. SCPA is also positioned to exceed the SB 350 long-term procurement requirement, as described in Sections V and VII.

SB 901, signed by Governor Brown on September 21, 2018, added Public Utilities Code (“Pub. Util. Code”) § 8388, which requires any investor-owned utility, publicly owned electric utility, or CCA with a biomass contract meeting certain requirements to seek to amend the contract to extend the expiration date to be five years later than the expiration date that was

operative as of 2018. SCPA does not have a contract with a biomass facility that is covered by Pub. Util. Code § 8388.

SB 255, signed by Governor Newsom on October 2, 2019, amended Pub. Util. Code § 366.2 and § 8283 to require each CCA with gross annual revenues exceeding \$15,000,000 to annually submit a report to the Commission regarding the CCA's procurement from women, minority, disabled veteran, and LGBT business enterprises in all categories. SB 255 also requires CCAs to include a methodology for ensuring procurement from local, small, and diverse business enterprises. SCPA has met all of its reporting obligations to fulfill SB 255 requirements.

As a public agency, SCPA takes official positions on legislation through a formal vote of its Board of Directors or through the actions of SCPA's Chief Executive Officer, subject to the authority delegated by SCPA's Board of Directors. Information on the official support positions of SCPA, including a support letter if applicable, are made available as part of Board of Directors meeting agenda packets. While SCPA has an adopted Legislative Platform, SCPA still evaluates each legislative position as each issue arrives. Therefore, SCPA cannot report on any definite future legislative positions it may take in advance.

IV. Assessment of RPS Portfolio Supplies and Demand

IV.A. Portfolio Supply and Demand

SCPA expects to exceed the Commission's RPS compliance obligations. The exact portfolio characteristics SCPA selects may vary depending on legislative and policy changes, technological improvements, preferences of the community, or other developments. To manage this future uncertainty, SCPA routinely examines and estimates supply and customer demand, including demand trends, as they relate to population of customers served, climate, energy efficiency, distributed generation, electrification of vehicles and buildings, and emerging

industries. SCPA structures its procurement efforts to match supply profiles with customer demand profiles. SCPA's examination of customer demand and other market developments will help reduce costs and assist in meeting planned procurement for the period in this RPS Procurement Plan.

IV.A.1. Voluntary Allocation and Market Offer (VAMO)

The *Final Report of Working Group 3 Co-Chairs: Southern California Edison Company (U-338E) California Community Choice Association, and Commercial Energy* ("Final Report") was filed on February 21, 2020, in the Commission's Power Charge Indifference Adjustment ("PCIA") R.17-06-026. A key proposal from the Final Report was for the Commission to create a Voluntary Allocation and Market Offer ("VAMO") framework. The VAMO allows each load serving entity ("LSE") serving customers subject to the PCIA the option to receive a Voluntary Allocation from the IOUs' PCIA-eligible RPS energy portfolios annually. These Voluntary Allocations are based on an LSE's forecasted, vintaged, load share, and subject to certain conditions. Further, the Final Report proposed that any declined shares would be offered to LSEs through a Market Offer. On May 20, 2021, the Commission adopted D.21-05-030, addressing the proposals in the Final Report. D.21-05-030 adopted the Final Report's VAMO proposal, subject to certain limitations and additional requirements. To implement this modified VAMO structure, D.21-05-030 identifies various next steps, including a meet-and-confer process with the IOUs regarding the method for calculating potential Voluntary Allocations based on vintaged, annual load forecasts, and a method for dividing the IOU's RPS portfolios into shares. This meet-and-confer process will be followed by the submission of an advice letter and workshops. As currently scheduled, IOUs and LSEs will confirm the LSEs' elections for Voluntary Allocation in February 2022, with contracting occurring in January or February of 2023.

At this time, SCPA does not anticipate taking a Voluntary Allocation. As demonstrated quantitatively in Appendix B and the risk assessment in Appendix F discussed in Section IX, SCPA does not expect to require additional RPS to exceed compliance targets in Compliance Period 4 – which is the term covered by the short-term contracts in the initial VAMO. Appendix B forecasts a 50.4% RPS position and Appendix F forecasts a 48.2% RPS risk position, which is a healthy buffer over the 39.9% requirement.

Although a potential compliance risk for SCPA is a deficiency in long-term RPS starting in 2027, the long-term VAMO portfolio for Pacific Gas and Electric Company (“PG&E”) is not a good fit for achieving SCPA’s environmental and reliability objectives. PG&E’s long-term VAMO portfolio comprises over 68% solar and a total of 85% intermittent renewables. As discussed in Section IV.A.2, SCPA is increasingly focusing its long-term portfolio planning on contracting resources that provide substantive hourly load-matching and emissions mitigations. This has led to a focus on procuring both baseload renewables and co-locating storage with solar as opposed to the types of resources in PG&E’s long-term VAMO portfolio.

There are several other issues in taking a Voluntary Allocation. First, CCAs would not receive data of past Voluntary Allocations for several months after delivery, which is not market practice. This leaves too much uncertainty for long periods of time and creates more risk for managing CCA customer portfolios. The Voluntary Allocation has no requirement to deliver a share of every resource of an IOU’s portfolio. Thus, SCPA would be unable to predict the hourly shape of the resources throughout the year. IOUs have the ability to withdraw any resource from the pool at any time, which adds considerable risk in planning and forecasting for a CCA. Because SCPA is exceeding the Commission’s RPS compliance obligations, accepting the Voluntary Allocation would harm customers and provide no climate benefit.

IV.A.2. Portfolio Optimization

SCPA's resource portfolio includes baseload renewable power (geothermal), intermittent resources with complementary profiles (solar and wind), and battery storage. SCPA examines the need to procure resources to meet its goals (which meet or exceed both state and local compliance obligations) and when significant change in load is expected to occur (*e.g.*, phasing in new territories).

Starting in 2021, SCPA contracted with Ascend Analytics to provide advanced portfolio optimization capabilities. Using Ascend's PowerSimm platform, SCPA is building a portfolio that is co-optimized for reliability, environmental performance, and cost, while meeting compliance obligations. The underlying stochastic engine, storage dispatch logic, and locational price modeling provide the foundation for robust decisions to minimize cost and risk for SCPA customers.

Reducing greenhouse gas ("GHG") emissions is one of SCPA's cornerstone objectives. In 2018, SCPA's Board of Directors established an objective of achieving 50% renewables by 2020 and 75 pounds per megawatt hour ("MWh") by 2030 for SCPA's portfolio using annual emissions reporting rules. In the 2022 IRP, SCPA expects to establish more robust hourly emissions targets that reflect the relative contribution of different resource types to mitigating grid emissions. Additionally, SCPA is increasingly focused on planning a portfolio that can maintain affordability and reliability as electrification of the transportation and building sectors ramps-up.

Although SCPA has invested considerable effort in the capability to optimize its portfolio for cost and carbon mitigation, procurement activity is being increasingly driven by the Commission's reliability requirements and market constraints. One example is the Mid-term

Reliability (“MTR”) requirement established in D.21-06-035 which requires SCPA to procure 141 megawatts (“MW”) of incremental capacity. Another example of the Commission’s reliability efforts is the Summer Reliability proceeding to ensure adequate supply to meet near-term demand.

SCPA staff balance SCPA Board of Directors’ desire for pro-active procurement according to SCPA’s long-term plans with maintaining flexibility to incorporate procurement mandates. Resources that satisfy MTR firm zero-emitting capacity requirement and the firm non-fossil baseload resource impact SCPA’s RPS position. SCPA has already executed a contract for a 20 MW solar project paired with storage for zero-emitting MTR capacity that will contribute 53 gigawatt hours (“GWh”) of annual RPS generation starting Summer 2024. SCPA has also executed two geothermal contracts for MTR that add 133 GWh of annual RPS by 2027 and an additional MTR-eligible firm zero-emitting 11.6 MW solar project paired with storage that will add 29 GWh of RPS. SCPA is actively negotiating a contract to fulfill the rest of its MTR obligation that could contribute an additional 131 GWh of RPS. In total, MTR procurement could be associated with 345 GWh of newly developed RPS by 2027, or 16% of SCPA’s load.

IV.B. Responsiveness to Local and Regional Policies

(i) Responsiveness to Policies of SCPA Governing Board

SCPA is a local governmental agency. SCPA is subject to the control and additional compliance mandates of its Board of Directors and is directly accountable to the community that it serves. SCPA strongly supports and is committed to meeting California’s GHG reduction and renewable procurement goals. SCPA actively supported the passage of SB 100 and has fully incorporated the procurement requirements of California’s RPS program into its overall procurement strategy. Furthermore, SCPA’s planned procurement exceeds California’s GHG

emissions goal by 23% in its 2020 IRP filing. SCPA planned to attain a lower 0.250 million metric tons (“MMT”) emissions target rather than meet California’s 0.326 MMT equivalent for the 38 MMT benchmark. In addition to this GHG-based target, SCPA’s Board of Directors adopted a 50% RPS target by 2020. This 50% RPS target is sufficient renewable energy to meet SB 100’s RPS requirement a full five years in advance. SCPA does not purchase Portfolio Content Category (“PCC”) 3 products to meet compliance requirements or Board of Directors-adopted targets.

(ii) Responsiveness to Regional Policies

SCPA’s Board of Directors sets most of the local policies relating to RPS targets and greenhouse gas emissions from SCPA customer electricity use in Sonoma and Mendocino Counties. SCPA’s Board of Directors consists of elected officials from each of the cities and counties served. SCPA’s Board of Directors coordinates its policies with all other local governments accordingly, including coordination on issues relating to long-term planning targets, local project development, zoning for renewable energy, streamlined permitting for electric vehicle charging stations, and dozens of similar related topics. In addition to the cities and counties of Sonoma and Mendocino Counties, SCPA works closely with its members’ water districts, the Regional Climate Protection Authority, the Office of Emergency Management, two air quality management districts, refuse agencies, and a number of land use agencies to coordinate local policy that support similar climate goals of the RPS. In short, SCPA is in a good position to ensure compliance and report on progress as an authority for establishing, monitoring, and implementing regional renewable energy and climate policy.

SCPA’s Board of Directors approved a Final Local Resource Plan (“LRP”) on May 6, 2021, that sets the plan for developing renewable resources in SCP territory to serve its 100%

local, 24/7 renewable EverGreen customers. On June 1, 2021, SCPA released a Local Resource Solicitation to develop local resources to achieve this plan. The Local Resource Solicitation resulted in multiple local projects being short-listed for negotiating long-term Power Purchase Agreements (“PPAs”). SCPA executed an agreement in June 2022 for the first project resulting from this solicitation, an 11.6 MW Tubbs Island solar facility co-located with 8 MW of 4-hour battery storage.

SCPA is also leading a cross-jurisdictional initiative to reinvigorate local geothermal power development. The Geothermal Opportunity Zone (“GeoZone”) created a formal partnership between SCPA and Sonoma and Mendocino Counties to explore opportunities for private geothermal companies to deploy new technologies and development strategies to grow local generation capacity by 500 MW. SCPA will use its commitment as an offtaker and community liaison to de-risk new geothermal projects. SCPA is evaluating proposals from prospective private partners in 2022.

IV.B.1. Long-term Procurement

SCPA’s currently contracted procurement achieves the 65% long-term RPS requirement through 2026, as demonstrated in Table 1 below. SCPA recognizes that the long-term procurement requirement requires early planning and is proactively evaluating strategies to fulfill the long-term requirement after 2026. Contracts currently under exclusivity for satisfying the MTR obligation and LRP will extend compliance through 2028 when executed.

SCPA anticipates additional generation resources will be required in 2029 and beyond to meet RPS requirements, and also to fulfill IRP carbon mitigation targets. In order to minimize the cost to ratepayers, SCPA will likely wait until the extreme market conditions caused by supply chain issues, interconnection logjams, and the MTR procurement mandate

abate before seeking offers for additional long-term resources. Meanwhile, SCPA is proactively working on addressing barriers to local resource development, particularly for geothermal projects, as discussed in Section IV.C.

Table 1: Long-term RPS Compliance (% of SCPA Retail Sales)

Compliance Measure (% of Retail Sales)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
RPS Obligation	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RPS Obligation Long-term (x 65%)	25.0%	26.8%	28.6%	30.3%	32.1%	33.8%	35.5%	37.3%	39.0%	39.0%	39.0%
Contracted Long-term RPS	34.1%	37.8%	44.2%	47.1%	48.9%	29.4%	29.0%	28.2%	27.9%	27.5%	26.9%
Long-term Deficiency						4.4%	6.6%	9.0%	11.1%	11.5%	12.1%
Contracted + Exclusivity Long-term RPS	34.1%	37.8%	50.1%	54.1%	55.9%	36.3%	35.8%	34.9%	34.5%	34.0%	33.2%
Contracted + Exclusivity Long-term RPS Deficiency								2.3%	4.5%	5.0%	5.8%

IV.C. Portfolio Diversity and Reliability

SCPA considers the deliverability characteristics of its resources, such as the resource's dispatchability and available capacity, and reviews the respective risks associated with short and long-term purchases as part of its forecasting and procurement processes. These efforts will lead to a more diverse resource mix, address grid integration issues, closely match SCPA's hourly electrical supply to its customers' demand, and provide additional value to the local community. A quantitative description of this forecast is attached to the 2022 RPS Procurement Plan in Appendix B.

Contracting with solar-only resources is proving unattractive due to the mismatch with real-time load, the trajectory of hourly energy market prices, and reliability counting methodology. Accordingly, all of the solar resources SCPA is currently negotiating or planning to add to its portfolio are co-located with storage. SCPA also contracted for the capacity resource of a 75 MW x 4-hour battery co-located with its existing Mustang solar facility. SCPA expects these resources to significantly reduce curtailment, decrease transmission impacts, and provide cost-effective capacity to serve peak load conditions in summer evenings. SCPA is also pursuing

several standalone storage opportunities with similar benefits, and recently executed two standalone long-duration storage contracts with other CCAs. In total, SCPA already retains 301 MWh of full-toll battery storage under contract, which is enough capacity to shift 5% of SCPA's average daily load. Storage resources currently under negotiation and in exclusivity are sufficient to nearly double that capability.

SCPA recognizes the importance of baseload renewables in providing reliability and high-value, intra-seasonal energy. Geothermal energy currently serves 20% of SCPA's load. SCPA expects the need for baseload renewables to increase as California retires nuclear and natural gas facilities and relies increasingly on intermittent renewables and storage resources. SCPA's territory is host to a world-class geothermal resource at The Geysers. Although new capacity has not been added to The Geysers since 1989, innovations in the geothermal industry that reduce the environmental impacts – critically, including water usage – provide an opportunity to reinvigorate local geothermal development that is compatible with community values.

The GeoZone is a key initiative in which SCPA is proactively alleviating barriers to development by engaging its community and partnering with geothermal development companies. These efforts are discussed in Section IV.B. Although the transmission approval timeline for large-scale geothermal projects is long, SCPA hopes the GeoZone will contribute meaningful capacity growth by the end of the current RPS planning horizon through 2032. SCPA recognizes the need for long-term planning and development of resources and is making the commitment now for the future of baseload renewables within our service territory.

To optimize cost, value, and risk, SCPA continuously examines and estimates supply and customer demand. This analysis includes demand trends as they relate to the number of

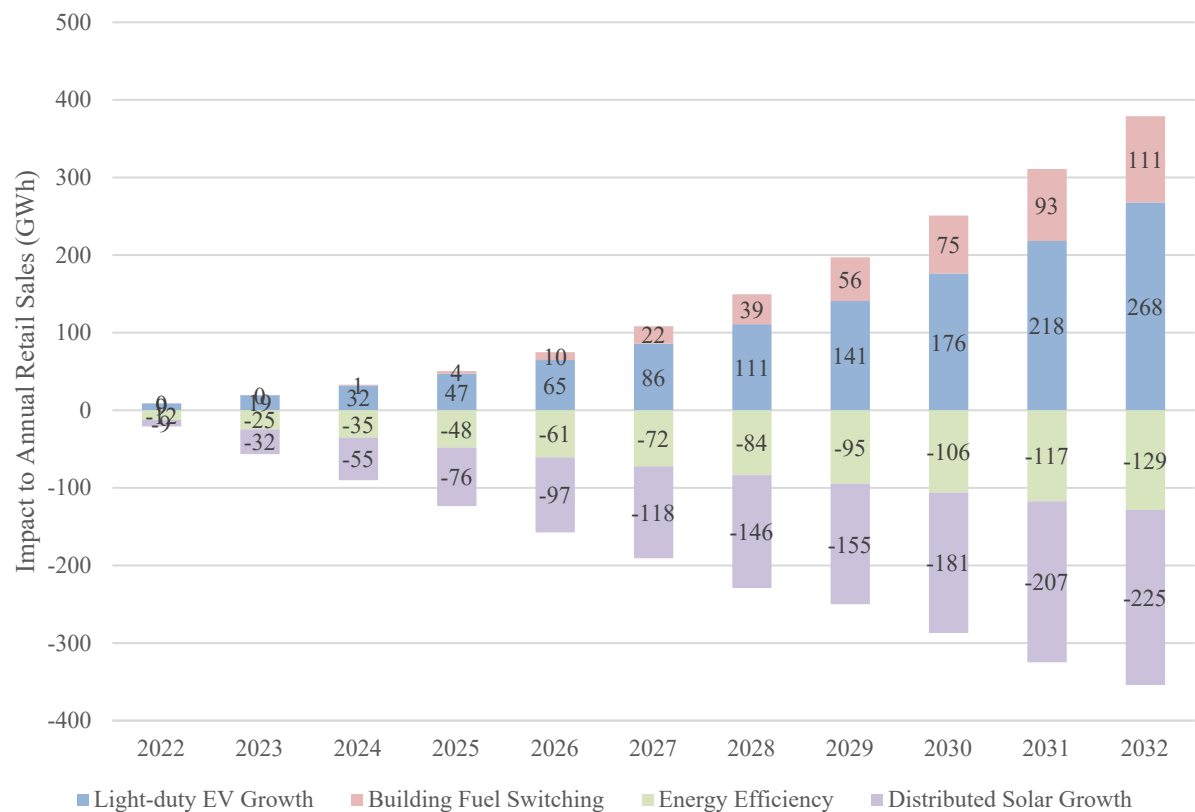
customers served, climate, energy efficiency, distributed generation, electrification of vehicles and buildings, and Public Safety Power Shut-off (“PSPS”) events. SCPA structures its procurement efforts to balance customer demand with resource commitments. SCPA also considers the deliverability characteristics of its resources, and reviews the respective risks associated with short and long-term purchases as part of its forecasting and procurement processes. SCPA diversifies its resource mix to address grid integration issues such as reliability, and closely matches hourly electrical supply to customer demand to reduce ratepayer risk.

SCPA’s portfolio consists of baseload geothermal renewable power and complementary, intermittent solar and wind resources combined with battery storage. SCPA regularly examines the need to procure resources to meet its own goals, compliance obligations, and changes to expected loads (*e.g.*, when customers upgrade from SCPA’s default product, CleanStart, to its 100% renewable, local, and 24/7 product, EverGreen).

SCPA uses a load forecast for the quantitative assessment for this 2022 RPS Procurement Plan that explicitly models anticipated incremental load from transportation and building electrification. SCPA also incorporates the expected impact of energy efficiency measures and growth in distributed solar load forecast used in the quantitative assessment for SCPA’s 2022 RPS Procurement Plan. SCPA’s load forecast aligns with its expectations for electrification in transportation and building electrification, and with the preferred alternative in the Draft 2022 Scoping Plan. SCPA calibrated the penetration of light-duty electric vehicles and residential fuel switching forecasted in the Draft 2022 Scoping Plan to specific data on the vehicle fleet and natural gas usage data in SCPA’s territory. SCPA derived expectations for energy efficiency and growth of distributed solar from scaling forecasts in the 2021 California Energy Commission’s (“CEC”) Integrated Energy Policy Report (“IEPR”) proceeding. As shown in Figure 1, the

increase in load from electrification can be roughly balanced with energy efficiency and distributed resources in the near-term. However, increases from electrification begin to significantly outpace energy reductions starting in 2032 and beyond, and attention on ensuring that new loads are matched on an hourly basis with new supply remains a top priority.

Figure 1: Load Modifiers in SCPA’s 2022 RPS Procurement Plan Load Forecast



IV.D. Lessons Learned

SCPA has served customers and participated in the RPS process since 2014. SCPA consistently sets RPS targets above California’s annual obligations. Table 2 shows the actual SCPA RPS percentages compared to California’s RPS annual obligations and SCPA annual targets. SCPA plans to meet or exceed its adopted targets through all compliance periods.

Table 2: RPS percentage of retail sales - targeted and actual

	2015	2016	2017	2018	2019	2020	2021
RPS obligation	23.3%	25.0%	27.0%	29.0%	31.0%	33.0%	35.8%
SCPA target	36.0%	40.0%	44.0%	46.0%	48.0%	50.0%	50.0%
Actual RPS	36.5%	41.8%	45.2%	49.0%	50.7%	49.6%	51.4%
Excess of RPS obligation	13.2%	16.8%	18.2%	20.0%	19.8%	16.7%	15.7%
Excess of SCPA target	0.5%	1.8%	1.2%	3.0%	2.8%	-0.3%	1.4%

Although SCPA has established a strong historical track record of RPS compliance, it recognizes that renewable resource development is inherently risky. SCPA has experienced contract failure, including one for a large wind farm and one for a local floating solar array. SCPA has gained additional insight and care for mitigating permitting and political risks from these past experiences. SCPA has also gained acumen for assessing developer experience. In recent solicitations, SCPA collected detailed information on project characteristics, including permitting requirements and transmission status. Developers are also vetted for experience and financing capability. Additionally, SCPA has participated in several recent joint solicitations with other CCAs and adopted best practices for capturing information in solicitation and structuring evaluations to reduce project risk.

V. Project Development Status Update

SCPA's current and planned procurement is sufficient to meet both the applicable RPS procurement requirements as well as support California's GHG reduction targets. Further, SCPA's current and planned procurement supports system reliability by considering both portfolio diversity and alignment with SCPA customers' hourly load curve.

As described in the Final 2021 RPS Procurement Plan, SCPA and the developer terminated a PPA for the 80 MW Sand Hill C project in December 2021. Construction delays and permitting issues led to project failure. This project is no longer included in SCPA's RPS Procurement Plan filing or forecasts.

SCPA currently has four projects in development under executed contracts. Development status information for these projects is included below and in Appendix C – Project Development Status Template as of the date of the Draft 2022 RPS Procurement Plan filing (July 1, 2022). However, where appropriate, SCPA has provided a narrative description of updated information for its Final 2022 RPS Procurement Plan.

Proxima

Development Phase: Pre-Construction

Capacity Procured: 70 MW solar + 32 MW 4-hour storage

Length of Contract: 20 years

Location: Crows Landing, California

Commercial Online Date: June 30, 2023

Technology Type: Solar PV with co-located 4-hour lithium-ion storage

Contract start and end dates: June 30, 2023 through June 29, 2043

Expected Annual Generation: 191.9 GWh

Total Contract Volume: 3,653.9 GWh

Transmission Status: Developer has executed an interconnection agreement. No new transmission lines are required, but project is dependent on a circuit breaker replacement and construction of a new switching station that are current expected to be finished to accommodate project's COD.

Narrative:

The Proxima project has been included in past filings as a 50 MW solar + 5 MW storage project but was expanded to 70 MW solar + 32 MW storage through a contract amendment in January 2022. The project is located near Crows Landing in Stanislaus County and received its

conditional use permit approval in March 2021. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Following SCPA's submission of its 2022 Draft RPS Procurement Plan, the project's Commercial Operation Date was formally delayed to April 1, 2024 through contract amendment. The developer mobilized for construction on August 1, 2022 and is not forecasting any issues in accommodating the revised commissioning date.

Tubbs Island

Development Phase: Pre-Construction

Capacity Procured: 11.6 MW Solar + 8 MW 4-hour storage

Length of Contract: 20 years

Location: Sonoma, California

Commercial Online Date: June 1, 2024

Technology Type: Solar PV with co-located 4-hour lithium-ion storage

Contract start and end dates: June 1, 2024 through May 31, 2044

Expected Annual Generation: 29.1 GWh

Total Contract Volume: 555.9 GWh

Transmission Status: Developer applied for independent study in March 2022 and passed PG&E's screens Q and R

Narrative:

The Tubbs Island project was contracted in June 2022 after being selected from a SCPA solicitation for new renewable and storage resources within its territory. The project will use dual-axis trackers to maximize output and will deliver energy to the Sonoma substation through a dedicated distribution circuit. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Fish Lake

Development Phase: Pre-Construction

Capacity Procured: 1.52 MW geothermal

Length of Contract: 20 years

Location: Dyer, Nevada

Commercial Online Date: June 1, 2024

Technology Type: Geothermal

Contract start and end dates: June 1, 2024 through May 31, 2044

Expected Annual Generation: 12.8 GWh

Total Contract Volume: 256.7 GWh

Transmission Status: Transmission service agreements in place with NV Energy and System Impact Study results received; interconnection agreement expected in 2022 Q4 and SCPA will need to secure import capacity from CAISO.

Narrative:

Fish Lake is a new 13 MW geothermal project being developed in Northern Nevada that SCPA jointly procured with other CCAs through California Community Power. SCPA's share of Fish Lake is 1.52 MW. Fish Lake is expected to be developed using Organic Rankine Cycle technology. [REDACTED]

[REDACTED] The project received its System Impact Study from NV Energy and started negotiating its interconnection agreement.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] There are no issues currently expected to impact the planned June 2024 online date.

Ormat Portfolio

Development Phase: Pre-Construction

Capacity Procured: 14 MW geothermal

Length of Contract: 20 years

Location: Varies (Nevada and California)

Commercial Online Date: starting June 1, 2024

Technology Type: Geothermal

Contract start and end dates: June 1, 2024 through December 31, 2046

Expected Annual Generation: 120.4 GWh

Total Contract Volume: 240.7 GWh

Transmission Status: Status varies by project; some have executed agreements and others are in queue. Most projects will need import capacity.

Narrative:

The Ormat Portfolio is a 125 MW contract for new geothermal projects in Nevada and California that SCPA jointly procured with other CCAs through California Community Power. The agreement is structured as a portfolio with flexibility in the location and attributes of specific projects to accommodate the uncertainty and risk in geothermal project development. SCPA's share of the portfolio is 14 MW. Potential projects in the portfolio could be commissioned as soon as June 2024 and may be located in Northern Nevada, California's Imperial Valley, or Sonoma County. The developer is progressing geologic exploration, transmission, and permitting activities for all projects—with some more mature than others. SCPA will need to secure import capability from CAISO for any projects in Nevada or the Imperial Valley.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

VI. Potential Compliance Delays

SCPA does not anticipate any potential delays in the current compliance period. Although a delay or cancellation of the development resources described in Section V could impede SCPA from reaching its internal 50% renewable goal, these projects are not necessary to achieve the weighted RPS objective for Compliance Period 4.

As SCPA's margin of voluntary over-procurement decreases going into the next compliance period, SCPA does expect to be exposed to compliance risks. These risks are discussed in more detail in Section VII and quantified where appropriate in Section VIII.

VII. Risk Assessment

SCPA routinely reviews development and operational risks to achieving compliance obligations. A discussion of key risks relevant to achieving RPS compliance, including the long-term procurement requirement, is included below and organized by assessed severity:

High-Severity Risks

- **Geothermal exploration risk:** A new unique risk to SCPA's RPS compliance is geothermal exploration risk. The larger geothermal contract included in this filing procured for the MTR mandate is a portfolio of projects, many of which require additional drilling and resource characterization to confirm viability. Although the structure of the agreement allows project substitution to help mitigate risk, the developer

has only guaranteed delivery of 51.2% of the project capacity.

- **Electrification adoption timing:** Although SCPA's current load is fairly steady, rapid growth is expected after transportation and building electrification efforts build momentum. Current forecasts for load growth increase dramatically through the 2030s for California and SCPA. This growth trend is barely captured in the 2032 planning horizon. If California and federal policy leads to an acceleration in electrification efforts, SCPA's RPS obligation and long-term requirement could increase measurably leading to difficulties to build capacity at a sufficient pace.
- **Transmission deliverability:** SCPA prefers to contract with resources that have obtained deliverability. However, the size and extended timeframe of the current California Independent System Operator ("CAISO") interconnection queue and the high demand for renewable and storage resources to satisfy procurement mandates is limiting the availability of low-risk projects. It appears likely that most projects with firm transmission rights and good developability already have signed contracts, and that substantially most additional capacity is on a longer timeframe because of the long delays in the CAISO transmission queue. Transmission concerns exist for the 11.6 MW Tubbs Island local solar project in development, dependent on an Independent Study Process to obtain a spot in the current queue. SCPA is also contracting with resources outside of CAISO, but securing Maximum Import Capability rights adds an additional uncertainty to securing the capacity benefits of new resources.

Mid-Severity Risks

- **Permitting:** SCPA is familiar with the risk of project delays due to permitting issues from its experience with the failure of the 80 MW Sand Hill C project. Although the

political issues which caused permitting concern for that project were specific to Altamont wind resources, permitting renewable development continues to be a challenge. Both the 11.6 MW Tubbs Island local solar project and the Nevada geothermal projects have significant permitting hurdles to overcome prior to construction, including requirements to satisfy the California Environmental Quality Act and National Environmental Policy Act. However, SCPA did not identify any specific project characteristics that significantly risk failure or delay. Additionally, the larger Ormat geothermal contract is structured as a portfolio of potential projects that allows the developer to substitute facilities if permitting constraints are encountered.

- **Supply chain:** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] risk is that of the uncertainty introduced by the ongoing rulemaking in the Uyghur Forced Labor Prevention Act enacted on December 23, 2021. The rulemaking establishes that the importation of any goods, wares, articles, and merchandise mined, produced, or manufactured wholly or in part in the Xinjiang Uyghur Autonomous Region of the People’s Republic of China are prohibited from entry to the United States unless the importer of record has complied with specified conditions and that the goods, wares, articles, or merchandise were not produced using forced labor.

- **Load variability:** SCPA’s load is fairly stable. No territory expansion is planned at this

time, and population and economic growth within the territory is fairly nominal. In early 2022, reduced commercial energy usage during COVID provided unexpected headroom in the PG&E direct access cap which led to an un-forecasted 2.5% decrease in load that is unlikely to occur again in the future. Many of SCPA’s largest customers are municipal accounts that are unlikely to shut down or leave service. SCPA’s load is sensitive to load changes of commercial customers. However, SCPA’s largest commercial customer only comprises only 1.5% of SCPA’s load.

SCPA employs a load forecasting model that stochastically varies weather forecasts using historic data adjusted for climate change and deterministic projections of meter counts, distributed resource installs, and electric vehicle adoption. Whereas the impact of weather uncertainty remains constant through time, diverging low and high projections for meter count, distributed resources, and electric vehicles cause uncertainty to increase significantly over time. Table 3 shows the sensitivity of the load model to these uncertainties, and range of outcomes in the overall model, for both a year-ahead 2023 forecast and a forecast for 2030.

Table 3: Sensitivity of Load Model Forecast to Uncertainties in 2023 and 2030

Uncertainty	2023		2030	
	Lowside	Upside	Lowside	Upside
Weather	-1.4%	+1.5%	-1.0%	+1.8%
Meter Count	-1.2%	+1.3%	-6.6%	+8.2%
Distributed Resource Installation	-0.5%	+0.7%	+3.9%	-2.1%
Electric Vehicle Adoption	-0.4%	+0.5%	-2.6%	+3.0%
Overall Model	-3.7%	+3.7%	-13.4%	+14.7%

The uncertainty and compliance risk reflected in this table is distinct from the high risk of accelerated electrification timing described above, which has the potential to lead to changes in load that are not characterized in load modeling. Although the

uncertainty range in 2030 implies load variability may be a high risk to RPS compliance, these results represent bookend outcomes and uncertainty will naturally reduce as time progresses and the projection period compresses.

Low-Severity Risks

- **Financing:** SCPA has not yet encountered issues with financing renewable development. SCPA would expect the financeability of projects to improve with the investment-grade issuer credit rating it received in December 2021. However, the Federal Reserve Bank increased interest rates to address inflation, and may continue to raise rates further. Higher borrowing costs could reduce the availability of resources and diversity of developers, while making it more difficult to secure resources to meet SCPA's long-term procurement requirement. In addition, some developers are beginning to request deal structures that will tie the contract price to a floating price tied to an inflation index. This makes it harder for SCPA to mitigate its contract risks.
- **Online generation:** SCPA has a resource portfolio with diverse technologies, geography, and developers that minimizes the variability and risk of online generation. SCPA's portfolio diversity strength is best illustrated through results from stochastic modeling that is trained on historical forecasts and weather variability. Table 4 shows the 90% confidence interval of variability from the mean in 2023 for a single intermittent resource, all intermittent resources in SCPA's portfolio, and SCPA's entire RPS portfolio. Although a single wind farm shows measurable variability (-9.5% to +11.8%), a portfolio of that resource with intermittent resources with different technologies and geographies provides a substantial reduction in range (-4.3% to +3.8%), and SCPA's strong concentration of firm renewable resources like geothermal lead to a total portfolio

variance of less than +/- 2%. Additionally, SCPA has not had any experience with an outright financial or physical failure of online generation. Periodic outages have occurred historically due to wildfires, transmission outages, and PSPS Events, but are small enough in scope to not measurably impact RPS compliance.

Table 4: Variability in Stochastic Generation Model for 2023 vs. Mean

Generation Source	5 th Percentile	95 th Percentile
Golden Hills Wind	-9.5%	+11.8%
All SCPA Intermittent Resources	-4.3%	+3.8%
SCPA RPS Portfolio	-1.8%	+1.6%

- Curtailment:** SCPA’s experience with curtailment is discussed further in Section XIII. SCPA currently self-schedules all RPS generation and does not currently see curtailment as a significant risk to RPS compliance. Installation of battery storage adjacent to SCPA’s existing solar facility and the inclusion of storage in future planned solar facilities should also minimize the risk of curtailment.

Risk Assessment Model

SCPA has completed a risk assessment of its RPS portfolio by modeling risks described above that are high or medium in severity. Table 5 below includes details on the framework SCPA has employed to independently model each risk and the resulting impact to three key compliance considerations for SCPA: the overall net RPS position for 2025 (unrisked scenario currently has 0.5% of sales excess), the overall net RPS position for 2026 (unrisked scenario currently has a 0.4% sales deficiency), and the long-term position in 2027 (unrisked scenario has a 4.4% sales deficiency). Risks are evaluated relative to the Commission’s compliance requirements rather than to SCPA voluntary targets.

Table 5: SCPA RPS Portfolio Risk Modeling Framework and Compliance Impact

Risk	Modeling Approach	MMoP Scenario Probability	2025 Net RPS Position (% of Sales)	2026 Net RPS Position (% of Sales)	2027 Long-term Position (% of Sales)
Geothermal Exploration Risk	Assume only 51.2% of the capacity in the larger exploration-dependent contract is built	33%	Introduces 0.8% deficiency	Expands deficiency to 2.7%	Expands deficiency to 7.1%
Electrification Adoption Timing	Assume a 3-year acceleration in the projected growth in EV adoption and building electrification impacts shown in Figure 1.	25%	Introduces 1.6% deficiency	Expands deficiency to 3.0%	Expands deficiency to 6.2%
Transmission Deliverability	Assume the 11.6 MW Tubbs Island solar project dependent on an Independent Study Process is not built.	50%	Introduces 0.9% deficiency	Expands deficiency to 1.8%	Expands deficiency to 5.7%
Permitting	Assume only 70% of capacity in permit-dependent projects (11.6 MW Tubbs Island solar and geothermal contracts) is built.		Introduces 0.9% deficiency	Expands deficiency to 2.4%	Expands deficiency to 6.6%
Supply Chain				No Impact	No Impact
Load Variability	Increase load by a straight-line interpolation of the +3.7% in 2023 and +14.7% bookend sensitivity		Introduces 2.6% deficiency	Introduces 4.2% deficiency	Expands deficiency to 7.1%

The results from Table 5 provide a reliable assessment of the potential for independent risks to impact RPS compliance. However, adding these risks together results in an unrealistically pessimistic scenario, especially because several of the risks overlap. Accordingly, SCPA has taken the additional step of developing a deterministic scenario using a subset of the risks in Table 5 that have a higher probability of occurrence or are more difficult to mitigate to calibrate a Minimum Margin of Over-Procurement (“MMoP”).

The risks included in this scenario are assigned a probability in the “MMoP Scenario” column in Table 5 and results are discussed in Section IX.A. These probabilities are assigned based on SCPA’s judgement, as there is insufficient analog data to statistically calibrate these occurrences. Permitting risk was not included because it overlaps with transmission and

geothermal exploration risk. Load variability was not included because it overlaps with electrification adoption and can be mitigated by following SCPA's process of updating load forecasts and procurement plans each year which is also why it was assigned a mid-level severity despite its potentially large compliance impact.

Strategies to Address Risk

SCPA addresses RPS generation resource risk by maintaining a diversified portfolio. SCPA maintains diversity in counterparties, resource types, project sizes, and locations of RPS facilities. SCPA addresses risk of overall RPS compliance by its MMoP detailed in Section IX. SCPA can utilize short-term contracts for additional RPS quantities, if necessary. SCPA can solicit for new long-term RPS generation resources if an existing contract is terminated. Though SCPA may utilize short-term RPS contracts, SCPA will exceed all long-term contracting requirements and will demonstrate this in the annual RPS Compliance filing due August 2022. Over-procurement beyond SCPA's targets can be mitigated either by selling excess energy to third parties or simply by retaining the RPS generation and exceeding its targets.

System Reliability

SCPA's current and planned procurement is sufficient to meet the applicable RPS procurement requirements, California's GHG reduction targets, and support system reliability by considering both portfolio diversification and alignment with SCPA customers' hourly load curve. Specifically, the projects that are currently under development fit within and support SCPA's plans for meeting these goals.

The capacity value of resources is a key consideration in selecting resources to fulfill SCPA's long-term RPS obligations. As previously stated, SCPA currently only plans to contract with solar that is co-located with storage with Full Capacity Deliverability Status ("FCDS")

capability. SCPA is also strategically focused on growing baseload renewables that will provide high-capacity value to the grid through the new geothermal contracts reflected in this filing and SCPA's investment in the GeoZone initiative to grow local geothermal power. Meanwhile, SCPA's procurement of local resources to satisfy Board of Directors requirements in its LRP, including the 11.6 MW Tubbs Island solar facility with co-located storage, are expected to reduce the constraints on high-voltage transmission lines in SCPA's region that reach capacity during large-scale PSPS events.

Lessons Learned

In 2021, SCPA's Board of Directors adopted a detailed Energy Risk Management Policy which is actively monitored by SCPA's Risk Oversight Committee ("ROC"). The Energy Risk Management Policy exists to limit SCPA's exposure to unnecessary risks and provide clear guidance for SCPA's procurement-related decisions. The ROC serves in an oversight and advisory role which governs and ensures adherence to SCPA's Energy Risk Management Policy and advises SCPA's CEO on prudent risk management.

The ROC evaluates energy market transactions for consistency with SCPA's procurement strategy, its RPS, IRP, GHG, Resource Adequacy ("RA"), energy storage targets, and established risk tolerances.

The ROC also validates that risk management controls and practices appropriately monitor SCPA's risk exposure. The ROC reviews risk management reports provided by SCPA's Middle Office. These reports contain quantitative metrics by which the ROC can assess SCPA's performance.

- **Establishing an independent department to quantify risk:**

In 2020, SCPA created a new department solely dedicated to Planning and Analytics.

This data-based team provides analysis and forecasts of every aspect of SCPA's load, resources, customer participation, GHG emissions, RPS generation output, and more. Since the new department is independent of SCPA's Power Procurement department, it creates an independent assessment of SCPA's portfolio with respect to the likelihood of complying with future regulatory obligations.

- **Relying on strong modeling tools:**

SCPA contracted with Ascend Analytics which utilizes PowerSimm, a stochastic modeling platform, to evaluate resource selection and overall portfolio scenarios under a host of risks and future scenarios. This platform is operated by SCPA's Planning and Analytics department and provides a detailed understanding of specific sensitivities to many different kinds of risk, including risks associated with deliverability – an issue of key concern with respect to summer capacity far into the future. These range from price changes at specific p-nodes, to variations in generation to modifications, to Effective Load Carrying Capability ("ELCC") methodology and changes in demand. Specifically, the tool utilizes market intelligence to forecast hourly and sub-hourly energy prices, congestion, volatility, ancillary services, PPA prices, and provides scenarios for variables contributing to assumptions such as low/high natural gas prices, EV adoption rates, and storage adoption rates. Resource and load modeling factors consider weather variability, dispatch optimization, and SCPA defined constraints such as RPS targets, GHG emissions, costs, reliability, and system power reliance. PowerSimm can provide reports on net position by year, gross margin at risk, and potential future exposure using stochastic modeling.

- **Financial Resilience When Risk Mitigation is Insufficient:**

SCPA has been preparing for another potential energy crisis since its inception. This is

why SCPA maintains a minimum reserves of 180 days cash reserves on hand and carries no debt. This conservative fiscal management is perhaps one of SCPA's most important risk management tools for achieving California's long-term RPS objectives because it facilitates contracting for new resources and allows SCPA to sustain its progress through adverse economic conditions.

VIII. Renewable Net Short Calculation

SCPA is including Appendix B – Renewable Net Short Template, which is a quantitative assessment to support the qualitative descriptions provided in this 2022 RPS Procurement Plan. The quantitative information in Appendix B presents resources that are procured under existing contracts only. Note that the actual quantities for 2017-2021 are shown for the year in which the REC was retired for RPS. The entry for the Voluntary Margin of Over-Procurement ("VMoP") is inclusive of *both* a MMoP and VMoP, and referred in Section IX as Total Margin of Over-Procurement ("TMoP").

IX. Minimum Margin of Procurement (MMoP)

In 2018, the SCPA Board of Directors committed to delivering 50% RPS by 2020, six years ahead of the compliance schedule. SCPA actually achieved this target in 2019, seven years ahead of the compliance schedule. To satisfy its own requirements, SCPA is planning to focus its above-compliance performance on carbon mitigation rather than exceeding RPS percentages as well as on adequate procurement to continue delivering at least 50% RPS through 2026. SCPA will then follow the trajectory of compliance requirements to 60% by 2030. Additionally, SCPA's planned procurement incorporates the MMoP discussed in Section IX.A to mitigate the compliance risks discussed in Section VII.

SCPA's 2020 IRP portfolio contained measurably more renewables than required

by California or Board of Directors-imposed requirements, reaching up to 76.4% by 2030.

In the Final 2021 RPS Procurement Plan, SCPA represented the renewable resources in the IRP as margin of over-procurement. Although preliminary modeling to inform the 2022 IRP indicates SCPA's optimum portfolio may include higher levels of RPS, SCPA is revising its TMoP to only include the following:

1. Historical or forecasted RPS generation under contract in excess of compliance requirements;
2. Planned RPS procurement to reach SCPA's Board of Directors-imposed 50% RPS target through 2026; and
3. If needed, additional planned RPS procurement to reach the MMoP calculated in Section XI.A above the RPS compliance obligation.

Redefining the scope of TMoP avoids SCPA overcommitting to RPS generation that is not contracted or motivated by a compliance or self-imposed requirement. As SCPA contracts additional supply to satisfy its IRP, or if the SCPA Board of Directors adopts a revised RPS-specific target, TMoP will be revised in future RPS procurement plans.

Section XV discusses the potential RPS development beyond the representation in the TMoP in SCPA's IRP. Section IX.B provides a breakdown of the TMoP between MMoP and VMoP.

IX.A. MMoP Methodology and Inputs

SCPA has Total RPS Eligible Procurement (*i.e.* procurement under contract) in excess of the Gross RPS Procurement Quantity Requirement through 2025 as shown in Appendix B.

Additionally, SCPA expects to satisfy its long-term procurement obligation through 2026, as

demonstrated in Table 1. SCPA is also actively working on contracts that will add to the Total RPS Eligible Procurement, further exceeding the requirements of RPS.

SCPA routinely tracks the variability in forecasted versus actual load and generation, and can utilize short-term contracts for additional RPS quantities, if necessary. Though SCPA may utilize some short-term RPS contracts, SCPA will exceed all long-term contracting requirements which will be reported in SCPA’s annual RPS Compliance Report filing.

To develop a discrete MMoP, SCPA used the deterministic scenario discussed in Section VII and captured in the “MMoP Scenario Probability” column in Table 5. This scenario is represented quantitatively as Appendix F. In the quantitative analysis, load is increased for a 25% chance of a 3-year electrification acceleration. RECs from facilities in development are decreased to reflect [REDACTED] a 50% chance of failure for the 11.6 MW Tubbs Island local solar facility due to transmission risks, and a 33% risk that the exploration-risked geothermal projects are not built. The decrease in the net RPS position relative to the compliance is used to calculate a MMoP. Table 6 shows the results of this analysis, along with a conversion of the MMoP into the percentage of retail sales forecasted in Appendix B.

Table 6: SCPA MMoP Calculation

Measure	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MMoP Scenario Compliance Net RPS Position (MWh)	45,096	35,594	-27,837	-58,386	-553,826	-630,011	-721,345	-796,805	-821,668	-857,398
Appendix B Compliance Net RPS Position (MWh)	124,900	153,953	10,239	-9,272	-498,406	-571,092	-658,580	-729,202	-749,551	-779,966
MMoP (MWh)	79,804	118,359	38,076	49,114	55,420	58,919	62,765	67,603	72,117	77,432
MMoP (% of Sales)	3.6%	5.4%	1.7%	2.2%	2.5%	2.7%	2.8%	3.0%	3.1%	3.3%

The resulting MMoP from the deterministic scenario aligns with SCPA’s view of overall market conditions. RPS scheduled to come online in 2023 and 2024 are at increased risk due to short-term supply chain and transmission interconnection issues that are expected to abate. These factors become particularly acute in 2024, when the largest share of obligation to satisfy the MTR order is due. Long-term, there is a residual risk with delivering new RPS contracts that requires around 3% of over-procurement.

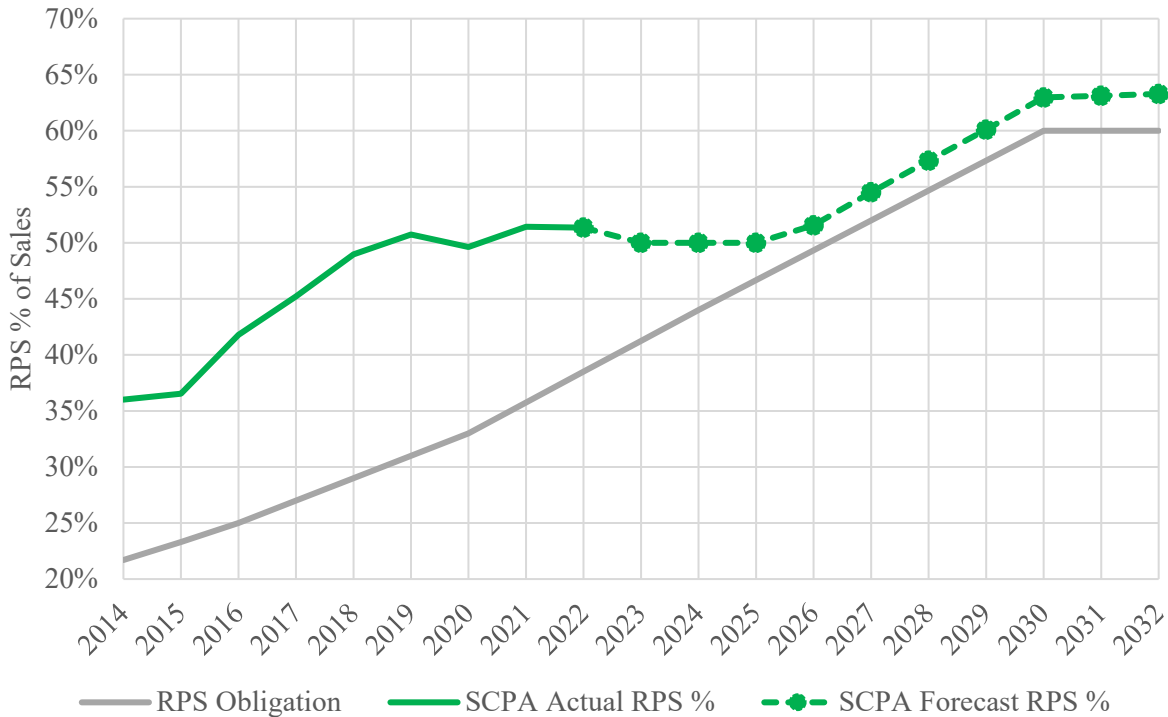
The results from Table 6 are used to allocate the TMoP into MMoP and VMoP. As discussed in Section IX, SCPA’s TMoP is comprised of three components: excess contracted RPS, RPS for internal benchmarks, and, if needed, additional RPS to cover MMoP requirements. Table 7 shows the allocation between MMoP and VMoP, where excess is first used to satisfy MMoP, and remaining excess is represented as VMoP.

Table 7: SCPA Margin of Over-Procurement Allocation

Measure	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
TMoP (MWh)	193,715	132,460	73,060	49,114	55,420	58,919	62,765	67,603	72,117	77,432
MMoP (MWh)	79,804	118,359	38,076	49,114	55,420	58,919	62,765	67,603	72,117	77,432
VMoP (MWh)	113,912	14,101	34,984	0	0	0	0	0	0	0
VMoP (% of Sales)	5.1%	0.6%	1.6%	0%	0%	0%	0%	0%	0%	0%

SCPA has consistently exceeded California RPS minimum target since it began serving customers in 2014. The historical RPS performance from 2014 to date and the future planned RPS performance incorporating the TMoP are compared to California’s RPS requirements from 2014 through 2032 as shown in Figure 2 below.

Figure 2: SCPA RPS % Compared to Obligation



IX.B. MMoP Scenarios

SCPA utilizes the TMoP to calculate its renewable net short (Annual Net RPS Position after Bank Optimization) as shown in Appendix B. A risk assessment of SCPA's renewable net short position is provided in Section VII. The RECs reported in the Quantitative Response in Appendix B are not adjusted for risk. Rather, SCPA takes the approach of mitigating risk through the use of MMoP.

The deterministic scenario described in section IX.A to calibrate MMoP is included as a separate quantitative assessment as Appendix F. As discussed in section IX.A, the retail sales in this assessment are increased to reflect a 25% chance of a 3-year acceleration in electrification. Additionally, the risk-adjusted RECs from facilities in development are decreased to reflect a [REDACTED] a 50% probability of failure for the local 11.6 MW Tubbs Island solar project, and a 33% risk that the geothermal exploration-

dependent projects are not built. The development forecast failure rate in Appendix F represents the ratio of the resulting RPS volumes to the un-risked volumes represented in Appendix B. The same TMoP as Appendix B is entered as VMoP, to illustrate the impact of over-procurement on mitigating compliance risk in this scenario. The results indicate that Compliance Period 4 (2021-2024) is well above its obligation. As with the un-risked scenario shown in Appendix B, future compliance periods are out of compliance—but by an additional margin of around 2%. SCPA will need to focus on additional long-term procurement to extend its compliance with the long-term obligation.

X. Bid Solicitation Protocol

X.A. Solicitation Protocols for Renewables Sales

SCPA does not have immediate plans to issue a solicitation for sales of renewable energy products.

X.B. Bid Selection Protocols

Consistent with Pub. Util. Code § 399.13(a)(6)(C), SCPA conducts and responds to solicitations for procuring energy resources that includes specific needs for eligible renewable energy resources, generating capacity, locational preferences, generation profile, and required online dates to assist in determining what resources fit best within a portfolio. Since CCA program Governing Boards are comprised of local elected officials, these solicitation and procurement decisions are overseen by elected representatives of the ratepayers. These solicitation and procurement decisions must comply with California’s RPS requirements as well as locally established policies.

Subsequent to the Final 2021 RPS Procurement Plan, SCPA issued two new RPS-related solicitations. As a member of California Community Power, SCPA joined nine other CCAs in

soliciting resources to satisfy its clean firm resource obligation in December 2021. This solicitation led to the execution of the two geothermal contracts in May 2022 that are included in the 2022 RPS Procurement Plan. In January 2022, SCPA joined Silicon Valley Clean Energy and Central California Community Energy in issuing a solicitation for various other MTR requirements, including the zero-emitting generation category which requires storage to be paired with generation. SCPA is currently under exclusivity for a project from this solicitation in this category that will contribute to its RPS position and is reflected in the last two rows on Table 1.

SCPA has also responded to a number of solicitations for RPS since filing the Final 2021 RPS Procurement Plan.

Table 8: SCPA Solicitation Responses

Counterparty	Solicitation Submission Date	Transaction Date
Southern California Edison	April 2021	May 2021
San Diego Gas and Electric	April 2021	June 2021
City of Palo Alto	April 2021	None
Clean Power Alliance	April 2021	None
PG&E	May 2021	None
Southern California Edison	July 2021	August 2021
PG&E	August 2021	None
Southern California Edison	October 2021	December 2021
PG&E	January 2022	None
Southern California Edison	March 2022	May 2022

Consistent with the direction in the ACR, SCPA has provided a copy of its most recent solicitation materials to Commission Energy Division staff. SCPA’s most recent solicitation information is provided in Appendix E.

X.C. LCBF Criteria

The Least-Cost Best Fit (“LCBF”) methodologies approved by the Commission pursuant to D.04-07-029, D.11-04-030, D.12-11-016, D.14-11-042, and D.16-12-044 are

expressly only directly applicable to investor-owned utilities and the Commission does not have jurisdiction over the solicitation protocols of CCAs. However, SCPA places a high degree of importance on resource costs because SCPA is a customer-owned public agency governed by locally elected officials and does not have guaranteed cost recovery. Additionally, consistent with Pub. Util. Code § 399.13(a)(9),¹ SCPA also considers best-fit attributes that support a balanced mix of resources to help support reliability of the electrical grid. SCPA's solicitation evaluation criteria include viability of projects, status of project interconnection and permitting, counterparty risk assessment, commercial operation date and delivery term, hourly generation profile as it relates to SCPA's demand profile, CAISO deliverability, location of project, emissions and air pollution reduction, pricing and pricing structure, energy value, congestion costs, operational flexibility and curtailment terms, and collateral terms.

Additionally, the requirement of Pub. Util. Code § 399.13(a)(8) to give preference to renewable projects located in certain communities is only expressly applicable to “electrical corporations” and is not mandatory for CCAs.² However, SCPA fully recognizes the need to help mitigate the impacts of air pollution in regions of California where communities have been disproportionately impacted by the existing generating fleet and the need to bring economic benefits to communities with high levels of poverty and unemployment.

Consistent with this recognition, SCPA has developed an advanced distributed energy resource (“DER”) dispatch platform that actively manages thousands of customer-owned

¹ Cal. Pub. Util. Code § 399.13(a)(9) (“In soliciting and procuring eligible renewable energy resources, each retail seller shall consider the best-fit attributes of resource types that ensure a balanced resource mix to maintain the reliability of the electrical grid.”).

² Cal. Pub. Util. Code § 399.13(a)(8)(1) (“In soliciting and procuring eligible renewable energy resources for California-based projects, each electrical corporation shall give preference to renewable energy projects that provide environmental and economic benefits to communities afflicted with poverty or high unemployment, or that suffer from high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases.”).

devices to shape load and mitigate against CAISO Stage 2 and 3 alerts, as well as shape SCPA's load to improve grid reliability more generally. These devices currently include electric vehicle charges, smart thermostats, heat pumps and heat pump water heaters, and just recently started including a non-technical behavioral program to allow people to manually contribute to demand response events as well. The goal is to improve system reliability and lower dependency on thermal units for system capacity to support the timely retirement of once-through cooling units and also to fulfill the goals of SB 100.

SCPA has used CalEnviroScreen 3.0 to identify disadvantaged communities within SCPA territory. There is one census tract within SCPA's service territory that is within the top 25% of impacted census tracts on a statewide basis. Note that the pollution burden percentile in this tract is not identified as being within the top 25%. The tract identified is census tract 6097153200 in Southwest Santa Rosa with a population of 7,522. SCPA estimates that this tract represents 1.3% of its service territory.

SCPA does not have contracts for energy with GHG emitting resources in disadvantaged communities. The CalEnviroScreen 3.0 map identifies two existing SCPA resources in Kings County and one new SCPA resource in Stanislaus County located within IRP defined disadvantaged communities. All three resources are solar photovoltaic resources that do not contribute to pollution burden. SCPA does not plan to procure any new fossil resources that would contribute to pollution burden.

SCPA will require respondents in future bid solicitations to provide information during the bid process assessing the impacts on and benefits for disadvantaged communities. This would include identifying the CalEnviroScreen score of the community in which the project will be located and any increases or decreases in air pollution and other environmental impacts due to

the proposed project. The solicitation will also require the respondent to provide information on employment and workforce development. The information required will include identifying the number of new jobs created during construction and operation phases, employment, and any training opportunities for individuals residing in disadvantaged communities. SCPA will assess bid projects' socioeconomic benefits and environmental impacts on disadvantaged communities. SCPA will not consider projects that negatively impact disadvantaged communities.

As part of its core mission, SCPA works to minimize criteria air pollutants. For this reason, SCPA has a clean supply portfolio that depends in large part on zero- and very low-emission generation technologies. In addition, many of SCPA's customer programs are designed to improve local air quality and serve regional needs. Some of SCPA's programs support transportation electrification, such as:

- Drive EV, which has enabled bulk discounts averaging more than \$8,500 per car for the purchase or lease of 1,258 electric vehicles (EVs) over three iterations of the program between 2016 and 2018. 10% of program participants were CARE/FERA customers.
- By the end of 2021, SCPA supplied EV charging equipment for residents, with over 3,500 Level 2 smart chargers deployed. Over 1,400 of those customers earned \$5 bill credits per month to participate in demand response events to promote renewable integration and reliability.
- SCPA provided a CALeVIP grant to deploy EV chargers throughout SCPA's service territory to meet regional needs with funding from the CEC. The program will expand the local network of public chargers with approximately 120 level 2 chargers and 40

DC Fast Charging stations located in both Sonoma and Mendocino Counties. The new chargers will be available by the summer of 2023.

- SCPA offers nonprofits in Sonoma and Mendocino counties an incentive of \$12,500 toward the purchase of an EV or plug-in hybrid with at least 25 electric miles. So far, 14 nonprofits have taken advantage of this incentive to purchase EVs.
- SCPA's electric bicycle incentive program (Bike Electric) provided 420 low-to-moderate income customers with a \$1,000 rebate towards the purchase of an eBike in 2021. SCPA worked with local bike retailers and the Sonoma County Bike Coalition to promote local sales, provided 117 free helmets, and delivered free bike safety trainings for 50 participants.

SCPA opened its Advanced Energy Center in June 2021 in partnership with the CEC to create a showcase for the complete transition of buildings to 100% renewable and carbon-free electricity. The 10,000 square foot facility provides contractor training, a showroom of technology, an all-electric demonstration kitchen, a customer support team, and 0% on-bill financing for home retrofits. A key element of the Advanced Energy Center is that almost all of the equipment costs of energy efficient appliances for low-income / CARE customers are covered by rebates. Those customers only pay for installation costs and have the ability to finance those costs at 0% interest on their SCPA electric bills. Other programs support behind-the-meter battery storage, DERs, energy efficiency kits, and building electrification.

As part of SCPA's commitment to its community, SCPA is helping to rebuild the communities impacted by the October 2017 wildfires. SCPA committed \$1 million to relief efforts and aided in coordinating funding requests for the region. SCPA recruited PG&E to partner on a joint program for the rebuild effort to incentivize deep energy efficiency, EV

charging, onsite renewable energy with storage, and the avoidance of natural gas connections. Due to the success of this program, PG&E replicated it in Paradise, site of the 2018 Camp Fire.

Additionally, the Advanced Energy Build program provides all-electric new home construction up to \$5,000 of incentives. This program is expected to help build over 650 units of gas-free single- and multi-family homes, with over 85% of funding going towards affordable housing.

XI. Safety Considerations

SCPA holds safety as a top priority. Since SCPA does not own, operate, or control generation facilities, SCPA's procurement of renewable resources does not present any direct safety risks. This Section describes how SCPA has taken actions to reduce the safety risks posed by its renewable resource portfolio and how SCPA supports California's environmental, safety, and energy policy goals.

(i) Decommissioning Facilities

SCPA contracts for its PPAs in a manner that all end-of-life disposal obligations are the responsibility of its counterparties. Therefore, SCPA does not make specific plans for deconstruction or environmental remediation, which are generally criteria that lead agencies establish for developers at the time of CEQA determination and criteria that are established by California and local authorities to obtain necessary permits. SCPA requires developers to adhere to all environmental requirements of their permits to construct and operate facilities under PPAs with SCPA.

(ii) Climate Change Adaptation

SCPA considers numerous risks when determining generating resources to procure. In addition to the ordinary energy market risks such as transmission congestion, curtailment, and

matching SCPA's hourly load profile, SCPA also considers risks relating to geographic overconcentration to help mitigate threats related to earthquakes, storms, and wildfires. SCPA is forecasting an increase in storm and wildfire intensity as a result of the climate crisis.

Unfortunately, flood risk has become more difficult to evaluate with the climate crisis since FEMA flood risk maps are no longer tracking to historic data and are no longer a reasonable predictor of flood risk. Avoiding sites in floodplains and low-lying coastal areas is relatively straightforward, but evaluating risk of flood damage from unusually heavy rain events is much more challenging. As a result, SCPA has placed the burden of ensuring sufficient generation output onto its suppliers and organized its portfolio to be geographically and technologically diverse.

(iii) Impacts During PSPS Events

PSPS events can have a moderate, but important, impact on SCPA's portfolio of renewable resources. The following resources can be shutoff or curtailed during local PG&E PSPS events:

- A portion of SCPA's 50 MW of geothermal from Geysers. Note that it is unlikely that all Geysers transmission would be shut down in a PSPS, so it is unlikely that SCPA would lose more than a fraction of its contracted supply.
- Any of the 6 MW of feed-in tariff solar power facilities located within SCPA's service territory.
- Any of the new local renewable generation resources and storage constructed as part of SCPA's local resource solicitation.
- An unknown amount of other renewable resources located outside SCPA's territory with PSPS-caused transmission Force Majeure. This is assumed to be

both small and very rare, and is therefore ignored for this purpose.

SCPA has analyzed each of the past PSPS events to determine the renewable energy impacts and has determined that the volume of customers shutdown by PG&E more than offsets the loss in renewable energy output of SCPA's local facilities. In 2019, SCPA's Lavio 1 MW solar feed-in-tariff project experienced three separate PSPS shutdowns for a total of 8.5 days of solar production. The loss of renewable supply was far less than the loss of customer load during these events. The Geysers facility was partially shutdown due to a Force Majeure event separate from PSPS. As a result, SCPA has determined that the impact of PSPS events is unlikely to have a negative impact on SCPA's percentage of renewable energy delivered to customers.

XII. Consideration of Price Adjustment Mechanisms

SCPA does not include price adjustment mechanisms in its contracts. Instead, SCPA asks suppliers to incorporate the risk of cost increases from both inflation and project scope into its bid price. Experience has proven that this strategy has protected SCPA ratepayers. It also enables a more fair and transparent process for evaluating solicitation responses.

XIII. Curtailment Frequency, Forecasting, Costs

This Section responds to the questions presented in Section 6.13 of the ACR³ and describe SCPA's strategies and experience so far in managing SCPA's exposure to negative pricing events, overgeneration, and economic curtailment for SCPA's region and portfolio of renewable resources.

(i) Factors Having the Most Impact on the Projected Increases in Incidences of Overgeneration and Negative Market Price Hours

SCPA continues to track the many changes occurring in the California energy market, including considerations related to energy curtailment with increased solar buildout, forecasts of

³ ACR at 34.

storage value by duration and location over time, and the potential for different kinds of customer-owned resources to contribute to solutions. The following represents SCPA's understanding of this topic, which may impact future procurement processes.

Due in large part to the rapid increase in the amount of wind and solar generating facilities that have been built throughout the western United States, the CAISO balancing authority area has experienced an increasing frequency and magnitude of curtailment and negative pricing events. As of 2021, California has over 15,000 MW of solar and 6,200 MW of wind capacity.⁴

This increased capacity results in discrete periods where the majority of load in the CAISO is served by solar and wind resources. The monthly maximum load served by wind and solar in the CAISO has averaged 65.8% over the past 3 years (March 2019 to March 2022), and in March of 2022 the monthly maximum load exceeded 96% with solar representing over 72%.⁵ When combined with the current need to operate natural gas peaking power plants at their minimum setting to ensure quick ramping capability, mandatory seasonal hydropower flows, and Title 24 building codes requiring solar on most new residential rooftops, oversupply in solar hours is now a more common issue, as was widely expected.

To address the resulting instances of over-supply, the amount of curtailment of solar and wind in the CAISO has significantly increased. In 2015, curtailments totaled 187 GWh. By 2021, curtailments reached 1,505 GWh. Curtailments have already reached 1,379 GWh in the first four months of 2022.⁶

⁴ California Energy Commission, Renewable Electric Generation Capacity and Energy, May 2022, *available at* <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/electric-generation-capacity-and-energy>.

⁵ CAISO, Monthly Renewables Performance Report, March 2022, *available at* <http://www.caiso.com/Documents/MonthlyRenewablesPerformanceReport-Mar2022.html>.

⁶ CAISO, Managing Oversupply, Wind and Solar Curtailment Totals, obtained May 31, 2022, *available*

Curtailment is typically highest during the months of March, April, and May when hydroelectric generation is historically at its highest and air conditioning loads are still low. California has experience with both above average snowpack and extreme drought in the past few years, so the extreme variability in total and seasonal California hydropower output is considered a large factor in SCPA’s portfolio management. With the buildout of battery storage, SCPA anticipates solar curtailments to stabilize and potentially decrease as batteries are able to charge during the hours of the day with the lowest prices, typically during curtailment hours. In general, SCPA plans for greater variability in hydropower output that will trend lower average output over time, but with occasional higher output from wetter and colder years.

(ii) Written Description of Quantitative Analysis of Forecast of the Number of Hours Per Year of Negative Market Pricing for the Next 10 Years

SCPA currently schedules its Variable Energy Resources (“VERs”) into the CAISO market and is partially exposed to negative pricing at each resource’s pricing node. Negative pricing occurs in the Day Ahead market (“DA”), Fifteen Minute Market (“FMM”), and Real Time (“RT”) market typically as a result of local or systemwide negative congestion. Although SCPA can be exposed to negative pricing from imbalance between markets, the principal risk is in the market a resource is scheduled.

The total number of net negative pricing hours experienced by all SCPA VERs from January 2018 through April 2022 are shown in Table 9, broken down by the market schedule. The number of hours shown in Table 9 are the total across all SCPA solar and wind VERs resources. SCPA is seeing a recent reduction in negative pricing hours, which is likely due to the installation of co-located storage at its solar facility in 2021.

Table 9: Number of Negative Pricing Hours for SCPA VERs

at <http://www.caiso.com/informed/Pages/ManagingOversupply.aspx>.

Market Schedule	2018	2019	2020	2021	Jan-Apr 2022
DA	204	342	574	208	380
FMM	144	186	163	131	55

Negative prices and associated costs occurred mainly between March and May, during the Pacific Northwest freshet, when higher than normal water levels impact hydroelectric supply and consequently power prices across the Western Electricity Coordinating Council.

SCPA does not provide a forecast for number of hours per year of negative pricing for its VERs as it is very difficult to accurately and precisely predict the impact that the expansion of the Energy Imbalance Market (“EIM”), the increased deployment of battery storage systems, and the retirement of system resources such as Diablo Canyon, amongst many other variables, will have on nodal pricing.

(iii) Experience, to Date, With Managing Exposure to Negative Market Prices and/or Lessons Learned from Other Retail Sellers in California

SCPA takes action to limit the impacts of curtailment on its ratepayers. SCPA pursues and implements contract terms that recognize and limit the potential financial impacts of negative pricing, and give SCPA greater flexibility to direct economic curtailment. SCPA also evaluates new procurement opportunities by evaluating the proposed project location and nearby historical negative pricing and congestion. SCPA has contracted and is actively exploring battery storage systems at existing resources as well as new hybrid projects, and has a particular focus on modeling the locational value of storage resources.

(iv) Direct Costs Incurred, to Date, for Incidences of Overgeneration and Associated Negative Market Prices

While not a result of CAISO incidences of overgeneration as defined by CAISO, SCPA

incurred costs of approximately \$50,000 over a total of 7,900 MWh at negative pricing hours for all VERs in 2021. This represents a negligible amount of total energy costs for SCPA ratepayers over the same time period, even when considered specifically for intermittent resources. Negative pricing occurred for resources scheduled in the DA market and FMM as shown in Table 10.

Table 10: Costs from Negative Pricing in 2021

Market Schedule	Volume Weighted Average Price (VWAP) during negative pricing hours only (\$/MWh)	Volume during negative pricing hours only (MWh)
DA	2.30	4,874
FMM	12.05	3,012

(v) Overall Strategy for Managing the Overall Cost Impact of Increasing Incidences of Overgeneration and Negative Market Prices

While curtailment is a viable renewable integration strategy that is generally more cost-effective than other options, there are potential negative consequences from excessive curtailment. Curtailment of solar and wind represents a lost opportunity to generate zero GHG emitting electricity, and excessive curtailment could impact the ability of California to meet its environmental and energy policy goals. Additionally, these over-supply situations expose ratepayers to increased costs – LSEs must either economically curtail the generating resource by often paying for the electricity that was not generated, or generate power and be exposed to negative prices. Because these conditions are largely driven by California policy, it is appropriate to consider macro-level mitigation measures through CAISO initiatives, Commission rulemakings, and possibly even legislation.

There are a number of measures and policies that have already been implemented or are currently being pursued that will have significant impacts on how substantial curtailment will be

in the future. These include the expansion of the EIM, improvements to the CAISO market design and structure, enhanced forecasting capabilities, improved time-of-use rates, improved EV charging functionalities, and smart deployment of DERs. Recently, SCPA has experimented with promoted workplace EV charging. SCPA has learned this may have significant potential to address curtailment while simultaneously providing access to EVs for renters and drivers who have only street parking options. The Commission's IRP proceeding will be an appropriate forum to measure the impact of these policies and the effect that they will have on future curtailment. These new measures will need to be modeled and incorporated into forecasts of future curtailment.

SCPA considers the impact of curtailment and negative pricing on its individual portfolio and factors potential curtailment into its long-term planning. Due to the difficulty in accurately forecasting curtailment, SCPA reviews the historical data on curtailment and negative pricing for the regions where SCPA has contracted or owns generating resources. When SCPA is evaluating new procurement, the potential amount of future curtailment is one factor that SCPA considers by evaluating nearby negative pricing and congestion. Additionally, SCPA takes action to limit the impacts of curtailment on its ratepayers. SCPA pursues contract terms that recognize and limit the potential financial impacts of negative pricing and give SCPA greater flexibility to direct economic curtailment. SCPA is also actively assessing energy storage opportunities on projects in areas with historic or expected future negative pricing.

(vi). Contract Terms Included in RPS Contracts Intended to Reduce the Likelihood of Curtailment or Protect Against Negative Prices

SCPA includes contract terms in its PPAs that allows rights to dispatch the resource, where applicable, which could lead to an economic curtailment of the resource in the event of significant negative pricing. However, SCPA is still obligated to pay for deemed energy. In

addition, SCPA includes contract language that requires the seller to use “commercially reasonable efforts to minimize the extent, amount and duration of any curtailments.” Finally, SCPA includes language in each of its PPAs for resources paired with storage that allows charging the storage resource from the grid. In some cases, this can only occur after a 5-year period of restricted charging due to investment tax credit restrictions. However, this grid charging could further negatively suppress pricing in the area.

XIV. Cost Quantification

SCPA has provided the Cost Quantification Table as Appendix D. Pursuant to the direction in the ACR, SCPA has completed those cells in the Cost Quantification Table that correspond to Table 3, Rows 1-5 in the ACR.

XV. Coordination with the IRP Proceeding

SCPA is including resources in the 2022 RPS Procurement Plan that are currently contracted and have a very strong likelihood of being represented in SCPA’s 2022 IRP portfolios due November 1, 2022. As discussed in Section IX, SCPA’s 2020 IRP portfolios contained additional RPS that may also be part of the 2022 IRP portfolio, but are not included in the 2022 RPS Procurement Plan to avoid over-representing SCPA’s procurement commitment. As required by the ACR,⁷ Table 11, below, describes how SCPA’s RPS Procurement Plan conforms with the determinations made in the IRP Proceedings (R.16-02-007 and R.20-05-003). Discussion of the potential for incremental RPS in the 2022 IRP portfolio is included in the table as well.

Table 11: Conformity with the IRP

IRP Section	RPS Alignment in IRPs
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⁷ ACR at 30-33.

Subsection	
III. Study Results A. Conforming and Alternative Portfolios	<div data-bbox="431 268 760 863"> <p><i>1. Existing RPS resources that the retail seller owns or contracts.</i></p> <p><i>2. Existing RPS resources that the retail seller plans to contract with in the future.</i></p> <p><i>3. New RPS resources that the retail seller plans to invest in.</i></p> <p><i>4. New and existing resources that will be used to meet Mid-Term Reliability obligations adopted in D.21-06-035.</i></p> </div> <div data-bbox="784 268 1411 1883"> <p><i>1. Existing RPS resources that the retail seller owns or contracts.</i></p> <p>SCPA's 2020 IRP preferred portfolio, this 2022 Procurement Plan, and the 2022 IRP portfolios are expected to share the following existing RPS resources under contract:</p> <ul style="list-style-type: none"> - 50 MW Geysers geothermal (expiring in 2026) - 40 MW Mustang Solar - 30 MW Mustang Solar 3 - 46 MW Golden Hills North Wind - 6 MW local solar feed-in-tariff projects <p>The 2022 RPS Procurement Plan contains additional short-term RPS resources contracted by SCPA from existing facilities executed after the 2020 IRP that will be included in SCPA's 2022 IRP from existing biomass resources.</p> <p><i>2. Existing RPS resources that the retail seller plans to contract with in the future</i></p> <p>The 2022 RPS Procurement Plan does not explicitly contain any existing RPS resources planned to be contracted with in the future, although existing resources will be likely used to satisfy the TMoP represented in Appendix B to meet SCPA's internal 50% RPS procurement requirement and the MMoP calibrated in Section IX.A.</p> <p>The 2020 IRP contained existing RPS with the expectation that SCPA would contract for VAMO resources. Following the 2020 IRP, SCPA decided to not participate in VAMO, and those resources are not included in the 2022 RPS Procurement Plan. The 2022 RPS Procurement Plan also does not contain RPS from existing biomass or geothermal, given that the requirements of the MTR order have shifted SCPA's focus to baseload resources that are new. The 2022 IRP will likely contain RPS from existing resources that may be sufficient to cover the TMoP, but the details are</p> </div>

	<p>dependent on additional portfolio optimization.</p> <p><i>3. New RPS resources that the retail seller plans to invest in</i></p> <p>The 2020 IRP contained the first 50 MW of the new 70 MW Proxima solar facility discussed earlier in the 2022 RPS Procurement Plan. However, the following projects were contracted after the 2020 IRP and are introduced in this 2022 Procurement Plan:</p> <ul style="list-style-type: none"> - Additional 20 MW for Proxima solar (70 MW total) - 11.6 MW Tubbs Island solar project - 15.5 MW of geothermal from Nevada and California (two separate contracts) <p>Importantly, the two solar projects with co-located storage are aligned with the 91 MW of solar planned (but not contracted) in the 2020 IRP. All of the projects listed above are expected to be included in SCPA's 2022 IRP portfolios. The 80 MW Sand Hill C wind project was present in the 2020 IRP, but is removed from the 2022 RPS Procurement Plan and will not be present in the 2022 IRP portfolios due to the project's cancellation.</p> <p>The 2022 RPS Procurement Plan does not include the remainder of the solar with co-located storage anticipated in the 2020 IRP nor 5 MW of expected new biomass given there is not sufficient certainty that these resources will be contracted by SCPA.</p> <p><i>4. New and existing resources that will be used to meet Mid-Term Reliability obligations adopted in D.21-06-035</i></p> <p>The 2022 RPS Procurement Plan includes 15.5 MW of new geothermal resources from Nevada and California, the 20 MW expansion of the Proxima project, and the 11.6 MW Tubbs Island solar project that are expected to be used to satisfy MTR obligations and contribute to SCPA's RPS portfolio. These resources will be included in SCPA's 2022 IRP portfolios.</p> <p>SCPA is under exclusivity in negotiating</p>
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		<p>projects to fulfill the remainder of its MTR requirements, including solar projects with co-located storage. These projects are not included in this RPS Procurement Plan, but are quantified in Table 1 and could contribute an incremental 154 GWh in annual long-term RPS generation. SCPA expects these resources will be included in its 2022 IRP portfolios.</p>
IV. Action Plan A. Proposed Activities	<p><i>1. Proposed RPS procurement activities as required by Commission decision or mandated procurement.</i></p> <p><i>2. Procurement plans, potential barriers, and resource viability for each new RPS resource identified.</i></p>	<p><i>1. Proposed RPS procurement activities as required by Commission decision or mandated procurement.</i></p> <p>The development of new RPS resources is accelerated in the 2022 RPS Procurement Plan relative to the Action Plan in the 2020 IRP. This is due to a couple of factors: the MTR has enforced a short-term compliance requirement on SCPA to build new capacity and SCPA's 2021 LRP identified an increased appetite for local RPS resources. As an example, whereas the 2020 IRP did not envision SCPA soliciting new CAISO solar until 2024 or existing geothermal resources until 2025, SCPA completed procurement activities for both of these resources in 2022.</p> <p>SCPA's 2022 IRP filing will contain an updated Action Plan. A key part of the Action Plan will include procurement activities that comply with RPS compliance requirements and the MMoP calibrated in this filing. Additionally, the 2022 IRP filing will specifically identify a plan for satisfying the long-term obligation deficit projected in 2027 in Table 1. Activities could include evaluating new candidate projects submitted in response to recent solicitations or bilateral negotiations or a solicitation focused on fulfilling SCPA's deficit.</p> <p>The 2022 IRP will also contain details on the resources selected to finish satisfying SCPA's MTR requirements which are all under exclusivity and currently under negotiation.</p> <p><i>2. Procurement plans, potential barriers, and</i></p>

		<p><i>resource viability for each new RPS resource identified.</i></p> <p>Many of the same risks described in Section VII for SCPA's development resources will create barriers for new RPS resources. SCPA is hopeful that issues such as supply chain constraints and transmission backlogs abate as the global market stabilizes and the MTR procurement order is satisfied. However, additional procurement orders and the expected growth in load alongside rising compliance requirements will likely sustain a high level of demand for new RPS resources that will complicate procurement. Securing FCDS and MIC allocation is a concern for SCPA given the number of projects vying for the same designation.</p> <p>Due to the expected changes and ongoing analysis for its 2022 IRP portfolio, SCPA is not forecasting specific resource types in its 2022 RPS Procurement Plan beyond projects currently under contract. Details on the size and type of SCPA's preferred resources to satisfy RPS obligations and IRP emissions targets will be provided in the 2022 IRP filing.</p> <p>In its preliminary IRP analysis, SCPA has identified baseload renewables, out-of-state resources, and solar paired with storage as likely preferred resources. SCPA is gaining direct experience with these resource types through projects in development with risks thoroughly described in Section VII.</p>
IV. Action Plan B. Procurement Activities	<p><i>1. The type of solicitation</i></p> <p><i>2. The timeline for each solicitation.</i></p> <p><i>3. Desired online dates.</i></p> <p><i>4. Other relevant procurement planning information, such as solicitation goals and objectives.</i></p>	<p>As described above, the development of RPS resources has been significantly accelerated relative to the Action Plan in the 2020 IRP due to the impact of MTR requirements and SCPA's LRP, which increased the demand for new local resources. SCPA expects additional procurement for both MTR and potentially its LRP through the rest of 2022, which will be reflected in the 2022 IRP.</p> <p>The 2020 IRP included a planned solicitation</p>

		<p>for additional solar and storage in 2024, incremental geothermal capacity in 2025, and biomass in 2029. Although SCPA expects a different resource mix in its 2022 IRP, it is likely the Action Plan will continue to include solicitation for new RPS resources in this timeframe.</p> <p>From an RPS compliance perspective, SCPA will require a new long-term RPS contract to be commissioned by 2027. A 2027 resource will also be important in meeting SCPA’s IRP emissions target. To facilitate a 2027 COD, a solicitation will be likely required by the 2024 date in the 2020 IRP Action Plan.</p> <p>SCPA will manage any remaining short position relative to compliance obligations and its TMoP target through short-term RPS contracts. SCPA has a strong track record of delivering RPS volumes through short-term contracts to meet internal RPS compliance targets. Although SCPA is not electing an allocation, SCPA is hopeful that VAMO will increase the liquidity of RPS in the upcoming years to help offset the impact of increased RPS demand from rising compliance targets.</p>
IV. Action Plan C. Potential Barriers	<p><i>1. Key market, regulatory, financial, or other resource viability barriers or risks associated with the RPS resources coming online in both retail sellers’ Preferred Portfolios.</i></p> <p><i>2. Key risks associated with the potential retirement of existing RPS resources on which the retail seller intends to rely in the future.</i></p>	<p>The key barriers for resources under contract and in development are described in detail in Section VII. As described above, these resources are a good sample of the types of resources SCPA expects to be represented in its 2022 IRP preferred portfolios. Issues such as importing ex-CAISO generation, permitting complexity, securing solar and battery modules, and geothermal exploration risk are shared between SCPA’s current development queue and candidate IRP resources. The 2022 IRP Action Plan will expand on this list if candidate resources with discrete resources are selected.</p> <p>SCPA’s 2020 IRP included an expectation to contract with existing geothermal resources. Although this resource is not discretely</p>

		<p>represented beyond 2026 in SCPA's 2022 RPS Procurement Plan and not yet identified as a preferred resource in SCPA's 2022 IRP, due to high operating costs, existing geothermal resources can be more difficult to contract and consequently at higher risk for retirement. This issue is particularly acute given that procurement orders have been focused on new incremental resources. If SCPA does include existing geothermal in its 2022 IRP portfolios, the Action Plan will address this issue.</p>
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Dated: December 19, 2023

Respectfully submitted,



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Appendix A

Redlined Version of Final 2022 RPS Plan

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

Order Instituting Rulemaking to Continue)	
Implementation and Administration, and Consider)	
Further Development, of California Renewables)	Rulemaking 18-07-003
Portfolio Standard Program.)	
_____)	

**~~DRAFT~~FINAL 2022 RENEWABLES PORTFOLIO STANDARD PROCUREMENT
PLAN OF
SONOMA CLEAN POWER AUTHORITY**

CONFIDENTIAL VERSION

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Dated: December 19, 2023

~~Dated: July 1, 2022~~

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

Order Instituting Rulemaking to Continue)	Rulemaking 18-07-003
Implementation and Administration, and Consider)	
Further Development, of California Renewables)	
Portfolio Standard Program.)	
_____)	

**~~DRAFT~~FINAL 2022 RENEWABLES PORTFOLIO STANDARD PROCUREMENT
PLAN OF
SONOMA CLEAN POWER AUTHORITY

CONFIDENTIAL VERSION**

In accordance with the California Public Utilities Commission’s (“Commission”) ~~March 30, 2021~~April 11, 2022 *Assigned Commissioner and Assigned Administrative Law Judges’ Ruling Identifying Issues and Schedule of Review for 2022 Renewables Portfolio Standard Procurement Plans and Denying Joint IOUs’ Motion to File Advice Letters for Market Offer Process (“ACR”)* and January 19, 2022 Decision (“D.”) 22-12-030, Decision on 2022 Renewables Portfolio Standard Procurement Plans (“D.22-12-30”), Sonoma Clean Power Authority (“SCPA”) hereby submits this ~~Draft~~Final 2022 Renewables Portfolio Standard Procurement Plan (“RPS Procurement Plan”). As directed by ~~the ACR~~D.22-12-30,, this RPS Procurement Plan ~~includes responses for the issues expressed in ACR sections 6.1–6.6~~is responsive to Ordering Paragraphs 9 and 16 requesting revisions to SCPA’s Draft RPS Procurement Plan.

SCPA notes that certain issues and requests in these ACR sections apply to the other retail sellers (electrical corporations and electric service providers), and do not extend to Community Choice Aggregators (“CCAs”). SCPA is nevertheless voluntarily responding to these ACR sections in the interest of transparency and in order to collaborate with the Commission.

However, the submission of this RPS Procurement Plan pursuant to the ACR, should not be construed as a waiver of the right to assert that components of the 2015 Senate Bill (“SB”) 350 or Commission decisions and rulings on RPS Procurement Plan submittals do not extend to CCAs. SCPA reserves the right to challenge any such assertion of jurisdiction over these matters.

I. Major Changes to RPS Plan

This Section describes the most significant changes between SCPA’s ~~Final 2021 RPS Procurement Plan and its~~ Draft 2022 RPS Procurement Plan and its Final 2022 RPS Procurement Plan. A redline of this Final 2022 RPS Plan against SCPA’s Draft 2022 RPS Plan ~~against SCPA’s Final 2021 RPS Plan~~ is included as Appendix A. The table below provides a list of key differences between the ~~Final 2021 and~~ Draft 2022 and Final 2022 RPS Procurement Plans:

Plan Reference	Plan Section	Summary/Justification of Change
2022 RPS Procurement Plan: Section III	Summary of Legislation Compliance	Updated to add discussion of SB 255.
2022 RPS Procurement Plan: Section IV	Assessment of RPS Portfolio Supplies and Demand	Added discussion on Voluntary Allocation and Market Offer (“VAMO”) and updated optimization discussion to reflect framework for 2022 Integrated Resources Planning (“IRP”) process evaluation.
2022 RPS Procurement Plan: Section IV.B	Responsiveness to Local and Regional Policies	Added outcome of Local Resource Plan solicitation and introduced SCPA GeoZone initiative to grow local geothermal capacity.
2022 RPS Procurement Plan: Section IV.B.1	Long-term Procurement	Updated discussion to include impact of recent procurement.
2022 RPS Procurement Plan: Section IV.C	Portfolio Diversity and Reliability	Added discussion of role of storage and baseload renewables in SCPA’s portfolio and updated description of load forecast assumptions.

2022 RPS Procurement Plan: Section V	Project Development Status Update	Updated to include discussion of SCPA's expanded queue of development projects and remove successfully completed projects. <u>Included additional discussion per the Commission's December 15, 2022 Decision on 2022 Renewables Portfolio Standard Procurement Plans.</u>
2022 RPS Procurement Plan: Section VII	Risk Assessment	Updated to better reflect SCPA's current assessment of RPS risk, including relative severity and scenario used to calibrate Minimum Margin of Procurement ("MMoP").
2022 RPS Procurement Plan: Section IX	Minimum Margin of Procurement	Updated to reflect revised approach to calibrate MMoP using risks specific to SCPA's development queue.
2022 RPS Procurement Plan: Section X	Bid Solicitation Protocol	Updated to include discussion of recent solicitations.
2022 RPS Procurement Plan: Section XIII	Curtailement Frequency, Forecasting, and Costs	Updated tables and calculations with current information.
2022 RPS Procurement Plan: Section XV	Coordination with the Integrated Resource Planning Proceeding	Updated to describe differences between RPS Procurement Plan and 2021 IRP and projected changes in the 2022 IRP.

II. Executive Summary

SCPA is reflecting changes to specific items to its 2022 Draft RPS Procurement Plan identified in D.22-12-030 in its 2022 Final RPS Procurement Plan. SCPA is aware that market conditions, SCPA's portfolio modeling, and load forecasting capability, risk characterization, and procurement activity continue to be dynamic, and SCPA's current RPS procurement strategy may differ from the details submitted in SCPA's 2022 Draft RPS Procurement Plan. Rather than reflect these changes in SCPA's 2022 Final RPS Procurement Plan, SCPA will instead implement them in its 2023 Draft RPS Procurement Plan and 2023 Integrated Resource Plan

(“IRP”). This will ensure that the 2022 Final RPS Procurement Plan remains in alignment with the 2022 IRP. SCPA remains committed to exceeding its RPS compliance obligations and mitigating procurement risks.

Energy market conditions are increasingly dynamic. SCPA is responding to this challenge through an increase in sophistication to its portfolio modeling, load forecasting capability, risk characterization, and procurement activity. Although SCPA is still finalizing its long-term procurement strategy for the 2022 Integrated Resource Plan, this 2022 ~~Draft~~Final RPS Procurement Plan provides the latest representation of SCPA’s procurement activity.

SCPA is not planning any territory expansion- at this time. Recent departure of customers to direct access and robust growth in behind-the-meter solar caused a decrease in load in the last few years. However, SCPA expects this trend to reverse as electrification of the transportation and building sectors continues to grow.

SCPA remains committed to exceeding its RPS compliance obligations and mitigating procurement risks based on its Board of Directors’ RPS expectations. This filing provides an update on the status of projects under development and an updated portfolio risk assessment. SCPA is in the process of procuring local resources per Board of Directors orders and fulfilling CPUC Commission-mandated procurement to meet reliability requirements. An update on procurement activities is included in this report.

III. Summary of Legislation Compliance

This RPS Procurement Plan addresses the requirements of all relevant legislation and the Commission’s regulatory framework. This Section describes the relevant statutory and regulatory requirements and demonstrates that this RPS Procurement Plan meets or exceeds all requirements.

Governor Brown signed SB 350 on October 7, 2015. SB 350 set a new RPS procurement target of 50% by December 31, 2030. On December 20, 2016, the Commission issued Decision (“D.”) 16-12-040, which partially implemented the increased targets of SB 350 by establishing new compliance periods and procurement quantity requirements. On July 5, 2017, the Commission issued D.17-06-026, which implemented some of the key remaining elements of SB 350, including adopting new minimum procurement requirements for long-term contracts and owned resources, as well as revising the excess procurement rules.

On September 10, 2018, Governor ~~Newsom~~Brown signed SB 100, which became effective on January 1, 2019. SB 100 increased the RPS procurement requirements to 44% by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. On June 6, 2018, the Commission issued D.18-05-026, which implemented changes made by SB 350 to the RPS waiver process and reaffirmed the existing RPS penalty scheme. In July of 2018, the Commission issued Rulemaking (“R.”) 18-07-003 to continue the implementation of the RPS. On May 22, 2019, the Commission issued a Proposed Decision that would continue to use a straight-line method to calculate compliance period procurement quantity requirements.

SCPA’s Renewable Net Short Calculation Table incorporates current RPS procurement targets as described in Section VIII below and attached as Appendix B. SCPA’s current and planned procurement, is sufficient to exceed these targets, as reflected in SCPA’s Renewable Net Short Calculation Table and described in Sections IV and V. SCPA’s RPS procurement targets also include a minimum margin of over-procurement based on SCPA’s risk assessment, and is further described in Sections VII and IX. SCPA is also positioned to exceed the SB 350 long-term procurement requirement, as described in Sections V and VII.

SB 901, signed by Governor Brown on September 21, 2018, added Public Utilities Code

(“Pub. Util. Code”) § 8388, which requires any investor-owned utility, publicly owned electric utility, or CCA with a biomass contract meeting certain requirements to seek to amend the contract to extend the expiration date to be five years later than the expiration date that was operative as of 2018. SCPA does not have a contract with a biomass facility that is covered by Pub. Util. Code § 8388.

SB 255, signed by Governor Newsom on October 2, 2019, amended Pub. Util. Code § 366.2 and § 8283 to require each CCA with gross annual revenues exceeding \$15,000,000 to annually submit a report to the Commission regarding the CCA’s procurement from women, minority, disabled veteran, and LGBT business enterprises in all categories. SB 255 also requires CCAs to include a methodology for ensuring procurement from local, small, and diverse business enterprises. SCPA has met all of its reporting obligations to fulfill SB 255 requirements.

As a public agency, SCPA takes official positions on legislation through a formal vote of its Board of Directors or through the actions of SCPA’s Chief Executive Officer, subject to the authority delegated by SCPA’s Board of Directors. Information on the official support positions of SCPA, including a support letter if applicable, are made available as part of Board of Directors meeting agenda packets. While SCPA has an adopted Legislative Platform, SCPA still evaluates each legislative position as each issue arrives. Therefore, SCPA cannot report on any definite future legislative positions it may take in advance.

IV. Assessment of RPS Portfolio Supplies and Demand

IV.A. Portfolio Supply and Demand

SCPA expects to exceed ~~CPUC’s~~the Commission’s RPS compliance obligations. The exact portfolio characteristics SCPA selects may vary depending on legislative and policy changes, technological improvements, preferences of the community, or other developments. To

manage this future uncertainty, SCPA routinely examines and estimates supply and customer demand, including demand trends, as they relate to population of customers served, climate, energy efficiency, distributed generation, electrification of vehicles and buildings, and emerging industries. SCPA structures its procurement efforts to match supply profiles with customer demand profiles. SCPA's examination of customer demand and other market developments will help reduce costs and assist in meeting planned procurement for the period in this RPS Procurement Plan.

IV.A.1. Voluntary Allocation and Market Offer (VAMO)

The *Final Report of Working Group 3 Co-Chairs: Southern California Edison Company (U-338E) California Community Choice Association, and Commercial Energy* ("Final Report") was filed on February 21, 2020, in the Commission's Power Charge Indifference Adjustment ("PCIA") R.17-06-026. A key proposal from the Final Report was for the Commission to create a Voluntary Allocation and Market Offer ("VAMO") framework. The VAMO allows each load serving entity ("LSE") serving customers subject to the PCIA the option to receive a Voluntary Allocation from the IOUs' PCIA-eligible RPS energy portfolios annually. These Voluntary Allocations are based on an LSE's forecasted, vintaged, load share, and subject to certain conditions. Further, the Final Report proposed that any declined shares would be offered to LSEs through a Market Offer. On May 20, 2021, the Commission adopted D.21-05-030, addressing the proposals in the Final Report. D.21-05-030 adopted the Final Report's VAMO proposal, subject to certain limitations and additional requirements. To implement this modified VAMO structure, D.21-05-030 identifies various next steps, including a meet-and-confer process with the IOUs regarding the method for calculating potential Voluntary Allocations based on vintaged, annual load forecasts, and a method for dividing the IOU's RPS portfolios into shares. This meet-and-

confer process will be followed by the submission of an advice letter and workshops. As currently scheduled, IOUs and LSEs will confirm the LSEs' elections for Voluntary Allocation in February 2022, with contracting occurring in January or February of 2023.

At this time, SCPA does not anticipate taking a Voluntary Allocation. As demonstrated quantitatively in Appendix B and the risk assessment in Appendix F discussed in Section IX, SCPA does not expect to require additional RPS to exceed compliance targets in Compliance Period 4 – which is the term covered by the short-term contracts in the initial VAMO. Appendix B forecasts a 50.4% RPS position and Appendix F forecasts a 48.2% RPS risk position, which is a healthy buffer over the 39.9% requirement.

Although a potential compliance risk for SCPA is a deficiency in long-term RPS starting in 2027, the long-term VAMO portfolio for Pacific Gas and Electric Company (“PG&E”) is not a good fit for achieving SCPA’s environmental and reliability objectives. PG&E’s long-term VAMO portfolio comprises over 68% solar and a total of 85% intermittent renewables. As discussed in Section IV.A.2, SCPA is increasingly focusing its long-term portfolio planning on contracting resources that provide substantive hourly load-matching and emissions mitigations. This has led to a focus on procuring both baseload renewables and co-locating storage with solar as opposed to the types of resources in PG&E’s long-term VAMO portfolio.

There are several other issues in taking a Voluntary Allocation. First, CCAs would not receive data of past Voluntary Allocations for several months after delivery, which is not market practice. This leaves too much uncertainty for long periods of time and creates more risk for managing CCA customer portfolios. The Voluntary Allocation has no requirement to deliver a share of every resource of an IOU’s portfolio. Thus, SCPA would be unable to predict the hourly shape of the resources throughout the year. IOUs have the ability to withdraw any resource from

the pool at any time, which adds considerable risk in planning and forecasting for a CCA.

Because SCPA is exceeding ~~CPUC~~the Commission's RPS compliance obligations, accepting the Voluntary Allocation ~~is not a risk SCP is willing to take~~would harm customers and provide no climate benefit.

IV.A.2. Portfolio Optimization

SCPA's resource portfolio includes baseload renewable power (geothermal), intermittent resources with complementary profiles (solar and wind), and battery storage. SCPA examines the need to procure resources to meet its goals (which meet or exceed both state and local compliance obligations) and when significant change in load is expected to occur (*e.g.*, phasing in new territories).

Starting in 2021, SCPA contracted with Ascend Analytics to provide advanced portfolio optimization capabilities. Using Ascend's PowerSimm platform, SCPA is building a portfolio that is co-optimized for reliability, environmental performance, and cost, while meeting compliance obligations. The underlying stochastic engine, storage dispatch logic, and locational price modeling provide the foundation for robust decisions to minimize cost and risk for SCPA customers.

Reducing greenhouse gas ("GHG") emissions is one of SCPA's cornerstone objectives. In 2018, SCPA's Board of Directors established an objective of achieving 50% renewables by 2020 and 75 pounds per megawatt hour ("MWh") by 2030 for SCPA's portfolio using annual emissions reporting rules. In the 2022 IRP, SCPA expects to establish more robust hourly emissions targets that reflect the relative contribution of different resource types to mitigating grid emissions. Additionally, SCPA is increasingly focused on planning a portfolio that can maintain affordability and reliability as electrification of the transportation and building sectors

ramps-up.

Although SCPA has invested considerable effort in the capability to optimize its portfolio for cost and carbon mitigation, procurement activity is being increasingly driven by ~~CPUC~~the Commission's reliability requirements and market constraints. One example is the Mid-term Reliability ("MTR") requirement established in D.21-06-035 which requires SCPA to procure 141 megawatts ("MW") of incremental capacity. Another example of ~~CPUC~~the Commission's reliability efforts is the Summer Reliability proceeding to ensure adequate supply to meet near-term demand.

SCPA staff balance SCPA Board of Directors' desire for pro-active procurement according to SCPA's long-term plans with maintaining flexibility to incorporate procurement mandates. Resources that satisfy MTR firm zero-emitting capacity requirement and the firm non-fossil baseload resource impact SCPA's RPS position. SCPA has already executed a contract for a 20 MW solar project paired with storage for zero-emitting MTR capacity that will contribute 53 gigawatt hours ("GWh") of annual RPS generation starting Summer 2024. SCPA has also executed two geothermal contracts for MTR that add 133 GWh of annual RPS by 2027 and an additional MTR-eligible firm zero-emitting 11.6 MW solar project paired with storage that will add 29 GWh of RPS. SCPA is actively negotiating a contract to fulfill the rest of its MTR obligation that could contribute an additional 131 GWh of RPS. In total, MTR procurement could be associated with 345 GWh of newly developed RPS by 2027, or 16% of SCPA's load.

IV.B. Responsiveness to Local and Regional Policies

(i) Responsiveness to Policies of SCPA Governing Board

SCPA is a local governmental agency. SCPA is subject to the control and additional compliance mandates of its Board of Directors and is directly accountable to the community that

it serves. SCPA strongly supports and is committed to meeting California's GHG reduction and renewable procurement goals. SCPA actively supported the passage of SB 100 and has fully incorporated the procurement requirements of California's RPS program into its overall procurement strategy. Furthermore, SCPA's planned procurement exceeds California's GHG emissions goal by 23% in its 2020 IRP filing. SCPA planned to attain a lower 0.250 million metric tons ("MMT") emissions target rather than meet California's 0.326 MMT equivalent for the 38 MMT benchmark. In addition to this GHG-based target, SCPA's Board of Directors adopted a 50% RPS target by 2020. This 50% RPS target is sufficient renewable energy to meet SB 100's RPS requirement a full five years in advance. SCPA does not purchase Portfolio Content Category ("PCC") 3 products to meet compliance requirements or Board of Directors-adopted targets.

(ii) Responsiveness to Regional Policies

SCPA's Board of Directors sets most of the local policies relating to RPS targets and greenhouse gas emissions from SCPA customer electricity use in Sonoma and Mendocino Counties. SCPA's Board of Directors consists of elected officials from each of the cities and counties served. SCPA's Board of Directors coordinates its policies with all other local governments accordingly, including coordination on issues relating to long-term planning targets, local project development, zoning for renewable energy, streamlined permitting for electric vehicle charging stations, and dozens of similar related topics. In addition to the cities and counties of Sonoma and Mendocino Counties, SCPA works closely with its members' water districts, the Regional Climate Protection Authority, the Office of Emergency Management, two air quality management districts, refuse agencies, and a number of land use agencies to coordinate local policy that support similar climate goals of the RPS. In short, SCPA is in a good

position to ensure compliance and report on progress as an authority for establishing, monitoring, and implementing regional renewable energy and climate policy.

SCPA's Board of Directors approved a Final Local Resource Plan ("LRP") on May 6, 2021, that sets the plan for developing renewable resources in SCP territory to serve its 100% local, 24/7 renewable EverGreen customers. On June 1, 2021, SCPA released a Local Resource Solicitation to develop local resources to achieve this plan. The Local Resource Solicitation resulted in multiple local projects being short-listed for negotiating long-term Power Purchase Agreements ("PPAs"). SCPA executed an agreement in June 2022 for the first project resulting from this solicitation, an 11.6 MW Tubbs Island solar facility co-located with 8 MW of 4-hour battery storage.

SCPA is also leading a cross-jurisdictional initiative to reinvigorate local geothermal power development. The Geothermal Opportunity Zone ("GeoZone") created a formal partnership between SCPA and Sonoma and Mendocino Counties to explore opportunities for private geothermal companies to deploy new technologies and development strategies to grow local generation capacity by 500 MW. SCPA will use its commitment as an offtaker and community liaison to de-risk new geothermal projects. SCPA is evaluating proposals from prospective private partners in 2022.

IV.B.1. Long-term Procurement

SCPA's currently contracted procurement achieves the 65% long-term RPS requirement through 2026, as demonstrated in Table 1 below. SCPA recognizes that the long-term procurement requirement requires early planning and is proactively evaluating strategies to fulfill the long-term requirement after 2026. Contracts currently under exclusivity for satisfying the MTR obligation and LRP will extend compliance through 2028 when executed.

SCPA anticipates additional generation resources will be required in 2029 and beyond to meet RPS requirements, and also to fulfill IRP carbon mitigation targets. In order to minimize the cost to ratepayers, SCPA will likely wait until the extreme market conditions caused by supply chain issues, interconnection logjams, and the MTR procurement mandate abate before seeking offers for additional long-term resources. Meanwhile, SCPA is proactively working on addressing barriers to local resource development, particularly for geothermal projects, as discussed in Section IV.C.

Table 1: Long-term RPS Compliance (% of SCPA Retail Sales)

Compliance Measure (% of Retail Sales)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
RPS Obligation	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RPS Obligation Long-term (x 65%)	25.0%	26.8%	28.6%	30.3%	32.1%	33.8%	35.5%	37.3%	39.0%	39.0%	39.0%
Contracted Long-term RPS	34.1%	37.8%	44.2%	47.1%	48.9%	29.4%	29.0%	28.2%	27.9%	27.5%	26.9%
Long-term Deficiency						4.4%	6.6%	9.0%	11.1%	11.5%	12.1%
Contracted + Exclusivity Long-term RPS	34.1%	37.8%	50.1%	54.1%	55.9%	36.3%	35.8%	34.9%	34.5%	34.0%	33.2%
Contracted + Exclusivity Long-term RPS Deficiency								2.3%	4.5%	5.0%	5.8%

IV.C. Portfolio Diversity and Reliability

SCPA considers the deliverability characteristics of its resources, such as the resource's dispatchability and available capacity, and reviews the respective risks associated with short and long-term purchases as part of its forecasting and procurement processes. These efforts will lead to a more diverse resource mix, address grid integration issues, closely match SCPA's hourly electrical supply to its customers' demand, and provide additional value to the local community. A quantitative description of this forecast is attached to the ~~Draft~~ 2022 RPS Procurement Plan in Appendix B.

Contracting with solar-only resources is proving unattractive due to the mismatch with real-time load, the trajectory of hourly energy market prices, and reliability counting methodology. Accordingly, all of the solar resources SCPA is currently negotiating or planning

to add to its portfolio are co-located with storage. SCPA also contracted for the capacity resource of a 75 MW x 4-hour battery co-located with its existing Mustang solar facility. SCPA expects these resources to significantly reduce curtailment, decrease transmission impacts, and provide cost-effective capacity to serve peak load conditions in summer evenings. SCPA is also pursuing several standalone storage opportunities with similar benefits, and recently executed two standalone long-duration storage contracts with other CCAs. In total, SCPA already retains 301 MWh of full-toll battery storage under contract, which is enough capacity to shift 5% of SCPA's average daily load. Storage resources currently under negotiation and in exclusivity are sufficient to nearly double that capability.

SCPA recognizes the importance of baseload renewables in providing reliability and high-value, intra-seasonal energy. Geothermal energy currently serves 20% of SCPA's load. SCPA expects the need for baseload renewables to increase as California retires nuclear and natural gas facilities and relies increasingly on intermittent renewables and storage resources. SCPA's territory is host to a world-class geothermal resource at The Geysers. Although new capacity has not been added to The Geysers since 1989, ~~incredible~~ innovations in the geothermal industry that reduce the environmental impacts – critically, including water usage – provide an opportunity to reinvigorate local geothermal development that is compatible with community values.

The GeoZone is a key initiative in which SCPA is proactively alleviating barriers to development by engaging its community and partnering with geothermal development companies. These efforts are discussed in Section IV.B. Although the transmission approval timeline for large-scale geothermal projects is long, SCPA hopes the GeoZone will contribute meaningful capacity growth by the end of the current RPS planning horizon through 2032. SCPA

recognizes the need for long-term planning and development of resources and is making the commitment now for the future of baseload renewables within our service territory.

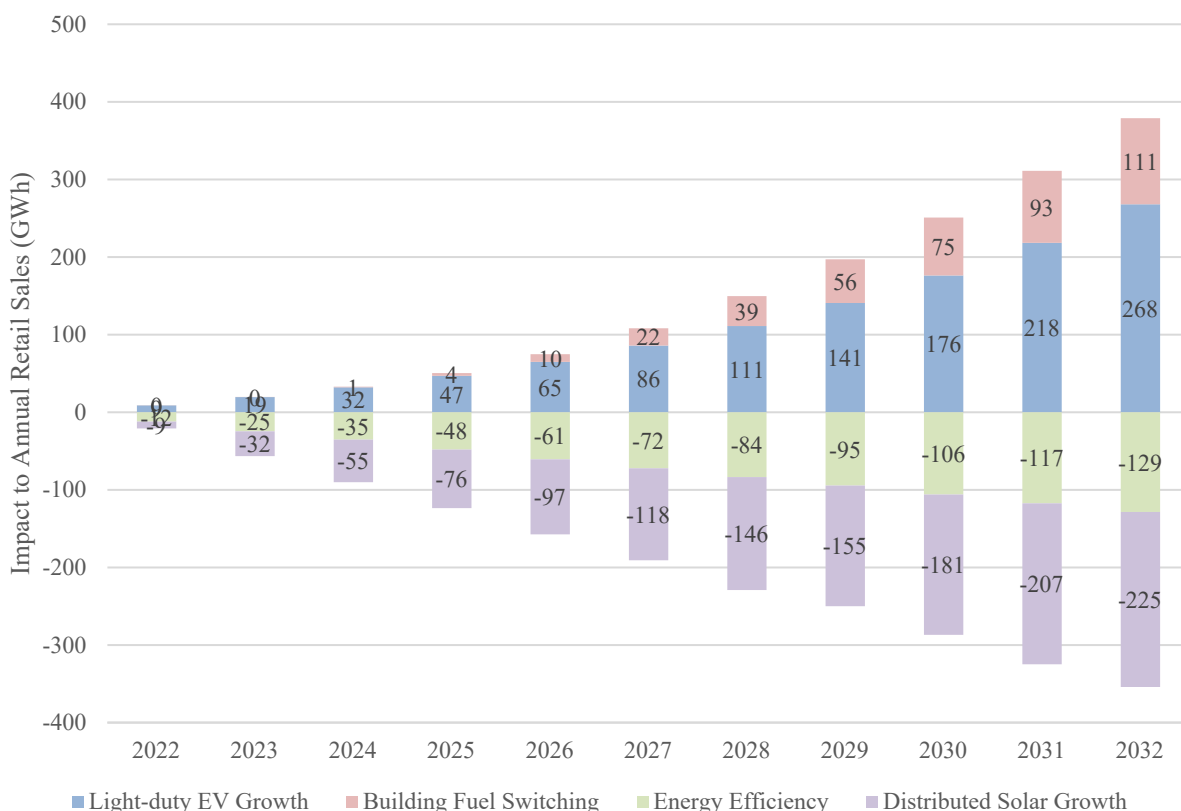
To optimize cost, value, and risk, SCPA continuously examines and estimates supply and customer demand. This analysis includes demand trends as they relate to the number of customers served, climate, energy efficiency, distributed generation, electrification of vehicles and buildings, and Public Safety Power Shut-off (“PSPS”) events. SCPA structures its procurement efforts to balance customer demand with resource commitments. SCPA also considers the deliverability characteristics of its resources, and reviews the respective risks associated with short and long-term purchases as part of its forecasting and procurement processes. SCPA diversifies its resource mix to address grid integration issues such as reliability, and closely matches hourly electrical supply to customer demand, ~~and reduces~~ to reduce ratepayer risk.

SCPA’s portfolio consists of baseload geothermal renewable power and complementary, intermittent solar and wind resources combined with battery storage. SCPA regularly examines the need to procure resources to meet its own goals, compliance obligations, and changes to expected loads (*e.g.*, when customers upgrade from SCPA’s default product, CleanStart, to its 100% renewable, local, and 24/7 product, EverGreen).

SCPA uses a load forecast for the quantitative assessment for this ~~Draft~~ 2022 RPS Procurement Plan that explicitly models anticipated incremental load from transportation and building electrification. SCPA also incorporates the expected impact of energy efficiency measures and growth in distributed solar load forecast used in the quantitative assessment for SCPA’s ~~Draft~~ 2022 RPS Procurement Plan. SCPA’s load forecast aligns with its expectations for electrification in transportation and building electrification, and with the preferred alternative in

the Draft 2022 Scoping Plan. SCPA calibrated the penetration of light-duty electric vehicles and residential fuel switching forecasted in the Draft 2022 Scoping Plan to specific data on the vehicle fleet and natural gas usage data in SCPA’s territory. SCPA derived expectations for energy efficiency and growth of distributed solar from scaling forecasts in the 2021 California Energy Commission’s (“CEC”) Integrated Energy Policy Report (“IEPR”) proceeding. As shown in Figure 1, the increase in load from electrification can be roughly balanced with energy efficiency and distributed resources in the near-term. However, increases from electrification begin to significantly outpace energy reductions starting in 2032 and beyond, and attention on ensuring that new loads are matched on an hourly basis with new supply remains a top priority.

Figure 1: Load Modifiers in SCPA’s 2022 ~~Draft~~ RPS Procurement Plan Load Forecast



IV.D. Lessons Learned

SCPA has served customers and participated in the RPS process since 2014. SCPA

consistently sets RPS targets above California’s annual obligations. Table 2 shows the actual SCPA RPS percentages compared to California’s RPS annual obligations and SCPA annual targets. SCPA plans to meet or exceed its adopted targets through all compliance periods.

Table 2: RPS percentage of retail sales - targeted and actual

	2015	2016	2017	2018	2019	2020	2021
RPS obligation	23.3%	25.0%	27.0%	29.0%	31.0%	33.0%	35.8%
SCPA target	36.0%	40.0%	44.0%	46.0%	48.0%	50.0%	50.0%
Actual RPS	36.5%	41.8%	45.2%	49.0%	50.7%	49.6%	51.4%
Excess of RPS obligation	13.2%	16.8%	18.2%	20.0%	19.8%	16.7%	15.7%
Excess of SCPA target	0.5%	1.8%	1.2%	3.0%	2.8%	-0.3%	1.4%

Although SCPA has established a strong historical track record of RPS compliance, it recognizes that renewable resource development is inherently risky. SCPA has experienced contract failure, including one for a large wind farm and one for a local floating solar array. SCPA has gained additional insight and care for mitigating permitting and political risks from these past experiences. SCPA has also gained acumen for assessing developer experience. In recent solicitations, SCPA collected detailed information on project characteristics, including permitting requirements and transmission status. Developers are also vetted for experience and financing capability. Additionally, SCPA has participated in several recent joint solicitations with other CCAs and adopted best practices for capturing information in solicitation and structuring evaluations to reduce project risk.

V. Project Development Status Update

SCPA’s current and planned procurement is sufficient to meet both the applicable RPS procurement requirements as well as support California’s GHG reduction targets. Further, SCPA’s current and planned procurement supports system reliability by considering both portfolio diversity and alignment with SCPA customers’ hourly load curve.

As described in the Final 2021 RPS Procurement Plan, SCPA and the developer terminated a PPA for the 80 MW Sand Hill C project in December 2021. Construction delays and permitting issues led to project failure. This project is no longer included in SCPA's RPS Procurement Plan filing or forecasts.

SCPA currently has four projects in development under executed contracts:

Development status information for these projects is included below and in Appendix C – Project Development Status Template as of the date of the Draft 2022 RPS Procurement Plan filing (July 1, 2022). However, where appropriate, SCPA has provided a 70-MW narrative description of updated information for its Final 2022 RPS Procurement Plan.

Proxima

Development Phase: Pre-Construction

Capacity Procured: 70 MW solar facility co-located with a 32 MW 4-hour storage resource in Central

Length of Contract: 20 years

Location: Crows Landing, California, a local 11.6 MW Tubbs Island solar facility

Commercial Online Date: June 30, 2023

Technology Type: Solar PV with co-located with an 8 MW 4-hour lithium-ion storage resource, and two separate contracts for 15.5 MW of

Contract start and end dates: June 30, 2023 through June 29, 2043

Expected Annual Generation: 191.9 GWh

Total Contract Volume: 3,653.9 GWh

Transmission Status: Developer has executed an interconnection agreement. No new geothermal capacity in Nevada and California. SCPA is attaching Appendix C – Project Development Status

~~Template with transmission lines are required details, but project is dependent on these projects a circuit breaker replacement and construction of a new switching station that are current expected to be finished to its Draft 2022 RPS Procurement Plan. accommodate project's COD.~~

~~Although the 70 MW Narrative:~~

~~The Proxima solar facility, which was project has been included in past filings as 50 MW, secured necessary permits and interconnection to reach a 50 MW solar + 5 MW storage project but was expanded to 70 MW solar + 32 MW storage through a contract amendment in January 2022. The project is located near Crows Landing in Stanislaus County and received its planned commissioning in June 2023, the conditional use permit approval in March 2021.~~ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

~~The other three projects in development were recently executed and project development updates will be shared in future filings. Risks to their on-schedule commissioning are discussed in Section VII.~~

~~SCPA has a number of other projects under exclusivity that are not included in this Draft 2022 RPS Procurement Plan, but will likely be executed later this year. These projects will provide future compliance with RPS requirements, fulfill SCPA's MTR reliability obligation, and satisfy its Board of Directors approved target for local resource development.~~

Following SCPA's submission of its 2022 Draft RPS Procurement Plan, the project's Commercial Operation Date was formally delayed to April 1, 2024 through contract amendment. The developer mobilized for construction on August 1, 2022 and is not forecasting any issues in accommodating the revised commissioning date.

Tubbs Island

Development Phase: Pre-Construction

Capacity Procured: 11.6 MW Solar + 8 MW 4-hour storage

Length of Contract: 20 years

Location: Sonoma, California

Commercial Online Date: June 1, 2024

Technology Type: Solar PV with co-located 4-hour lithium-ion storage

Contract start and end dates: June 1, 2024 through May 31, 2044

Expected Annual Generation: 29.1 GWh

Total Contract Volume: 555.9 GWh

Transmission Status: Developer applied for independent study in March 2022 and passed

PG&E's screens Q and R

Narrative:

The Tubbs Island project was contracted in June 2022 after being selected from a SCPA solicitation for new renewable and storage resources within its territory. The project will use dual-axis trackers to maximize output and will deliver energy to the Sonoma substation through a dedicated distribution circuit.

[REDACTED]

Fish Lake

Development Phase: Pre-Construction

Capacity Procured: 1.52 MW geothermal

Length of Contract: 20 years

Location: Dyer, Nevada

Commercial Online Date: June 1, 2024

Technology Type: Geothermal

Contract start and end dates: June 1, 2024 through May 31, 2044

Expected Annual Generation: 12.8 GWh

Total Contract Volume: 256.7 GWh

Transmission Status: Transmission service agreements in place with NV Energy and System

Impact Study results received; interconnection agreement expected in 2022 Q4 and SCPA will

need to secure import capacity from CAISO.

Narrative:

Fish Lake is a new 13 MW geothermal project being developed in Northern Nevada that
SCPA jointly procured with other CCAs through California Community Power. SCPA's share of
Fish Lake is 1.52 MW. Fish Lake is expected to be developed using Organic Rankine Cycle
technology. [REDACTED]

[REDACTED]. The project received its System Impact Study from NV Energy and started negotiating its interconnection agreement.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Ormat Portfolio

Development Phase: Pre-Construction

Capacity Procured: 14 MW geothermal

Length of Contract: 20 years

Location: Varies (Nevada and California)

Commercial Online Date: starting June 1, 2024

Technology Type: Geothermal

Contract start and end dates: June 1, 2024 through December 31, 2046

Expected Annual Generation: 120.4 GWh

Total Contract Volume: 240.7 GWh

Transmission Status: Status varies by project; some have executed agreements and others are in queue. Most projects will need import capacity.

Narrative:

The Ormat Portfolio is a 125 MW contract for new geothermal projects in Nevada and California that SCPA jointly procured with other CCAs through California Community Power. The agreement is structured as a portfolio with flexibility in the location and attributes of specific projects to accommodate the uncertainty and risk in geothermal project development. SCPA's share of the portfolio is 14 MW. Potential projects in the portfolio could be commissioned as soon as June 2024 and may be located in Northern Nevada, California's Imperial Valley, or Sonoma County. The developer is progressing geologic exploration, transmission, and permitting activities for all projects—with some more mature than others. SCPA will need to secure import capability from CAISO for any projects in Nevada or the Imperial Valley.

[REDACTED]

VI. Potential Compliance Delays

SCPA does not anticipate any potential delays in the current compliance period.

Although a delay or cancellation of the development resources described in Section V could impede SCPA from reaching its internal 50% renewable goal, these projects are not necessary to achieve the weighted RPS objective for Compliance Period 4.

As SCPA's margin of voluntary over-procurement decreases going into the next compliance period, SCPA does expect to be exposed to compliance risks. These risks are discussed in more detail in Section VII and quantified where appropriate in Section VIII.

VII. Risk Assessment

SCPA routinely reviews development and operational risks to achieving compliance obligations. A discussion of key risks relevant to achieving RPS compliance, including the long-term procurement requirement, is included below and organized by assessed severity:

High-Severity Risks

- **Geothermal exploration risk:** A new unique risk to SCPA's RPS compliance is geothermal exploration risk. The larger geothermal contract included in this filing procured for the MTR mandate is a portfolio of projects, many of which require additional drilling and resource characterization to confirm viability. Although the structure of the agreement allows project substitution to help mitigate risk, the developer has only guaranteed delivery of 51.2% of the project capacity.
- **Electrification adoption timing:** Although SCPA's current load is fairly steady, rapid growth is expected after transportation and building electrification efforts build momentum. Current forecasts for load growth increase dramatically through the 2030s for California and SCPA. This growth trend is barely captured in the 2032 planning horizon. If California and federal policy leads to an acceleration in electrification efforts, SCPA's RPS obligation and long-term requirement could increase measurably leading to

difficulties to build capacity at a sufficient pace.

- **Transmission deliverability:** SCPA prefers to contract with resources that have obtained deliverability. However, the size and extended timeframe of the current California Independent System Operator (“CAISO”) interconnection queue and the high demand for renewable and storage resources to satisfy procurement mandates is limiting the availability of low-risk projects. It appears likely that most projects with firm transmission rights and good developability already have signed contracts, and that substantially most additional capacity is on a longer timeframe because of the long delays in the CAISO transmission queue. Transmission concerns exist for the 11.6 MW Tubbs Island local solar project in development, dependent on an Independent Study Process to obtain a spot in the current queue. SCPA is also contracting with resources outside of CAISO, but securing Maximum Import Capability rights adds an additional uncertainty to securing the capacity benefits of new resources.

Mid-Severity Risks

- **Permitting:** SCPA is familiar with the risk of project delays due to permitting issues from its experience with the failure of the 80 MW Sand Hill C project. Although the political issues which caused permitting concern for that project were specific to Altamont wind resources, permitting renewable development continues to be a challenge. Both the 11.6 MW Tubbs Island local solar project and the Nevada geothermal projects have significant permitting hurdles to overcome prior to construction, including requirements to satisfy the California Environmental Quality Act and National Environmental Policy Act. However, SCPA did not identify any specific project characteristics that significantly risk failure or delay. Additionally, the larger Ormat

geothermal contract is structured as a portfolio of potential projects that allows the developer to substitute facilities if permitting constraints are encountered.

- **Supply chain:** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] risk is that of the uncertainty introduced by the ongoing rulemaking in the Uyghur Forced Labor Prevention Act enacted on December 23, 2021. The rulemaking establishes that the importation of any goods, wares, articles, and merchandise mined, produced, or manufactured wholly or in part in the Xinjiang Uyghur Autonomous Region of the People's Republic of China are prohibited from entry to the United States unless the importer of record has complied with specified conditions and that the goods, wares, articles, or merchandise were not produced using forced labor.

- **Load variability:** SCPA's load is fairly stable. No territory expansion is planned at this time, and population and economic growth within the territory is fairly nominal. In early 2022, reduced commercial energy usage during COVID provided unexpected headroom in the PG&E direct access cap which led to an un-forecasted 2.5% decrease in load that is unlikely to occur again in the future. Many of SCPA's largest customers are municipal accounts that are unlikely to shut down or leave service. SCPA's load is sensitive to load changes of commercial customers. However, SCPA's largest commercial customer only comprises only 1.5% of SCPA's load.

SCPA employs a load forecasting model that stochastically varies weather forecasts using historic data adjusted for climate change and deterministic projections of meter counts, distributed resource installs, and electric vehicle adoption. Whereas the impact of weather uncertainty remains constant through time, diverging low and high projections for meter count, distributed resources, and electric vehicles cause uncertainty to increase significantly over time. Table 3 shows the sensitivity of the load model to these uncertainties, and range of outcomes in the overall model, for both a year-ahead 2023 forecast and a forecast for 2030.

Table 3: Sensitivity of Load Model Forecast to Uncertainties in 2023 and 2030

Uncertainty	2023		2030	
	Lowside	Upside	Lowside	Upside
Weather	-1.4%	+1.5%	-1.0%	+1.8%
Meter Count	-1.2%	+1.3%	-6.6%	+8.2%
Distributed Resource Installation	-0.5%	+0.7%	+3.9%	-2.1%
Electric Vehicle Adoption	-0.4%	+0.5%	-2.6%	+3.0%
Overall Model	-3.7%	+3.7%	-13.4%	+14.7%

The uncertainty and compliance risk reflected in this table is distinct from the high risk of accelerated electrification timing described above, which has the potential to lead to changes in load that are not characterized in load modeling. Although the uncertainty range in 2030 implies load variability may be a high risk to RPS compliance, these results represent bookend outcomes and uncertainty will naturally reduce as time progresses and the projection period compresses.

Low-Severity Risks

- **Financing:** SCPA has not yet encountered issues with financing renewable development. SCPA would expect the financeability of projects to improve with the investment-grade issuer credit rating it received in December 2021. However, the Federal Reserve Bank

increased interest rates to address inflation, and may continue to raise rates further.

Higher borrowing costs could reduce the availability of resources and diversity of developers, while making it more difficult to secure resources to meet SCPA's long-term procurement requirement. In addition, some developers are beginning to request deal structures that will tie the contract price to a floating price tied to an inflation index. This makes it harder for SCPA to mitigate its contract risks.

- **Online generation:** SCPA has a resource portfolio with diverse technologies, geography, and developers that minimizes the variability and risk of online generation. SCPA's portfolio diversity strength is best illustrated through results from stochastic modeling that is trained on historical forecasts and weather variability. Table 4 shows the 90% confidence interval of variability from the mean in 2023 for a single intermittent resource, all intermittent resources in SCPA's portfolio, and SCPA's entire RPS portfolio. Although a single wind farm shows measurable variability (-9.5% to +11.8%), a portfolio of that resource with intermittent resources with different technologies and geographies provides a substantial reduction in range (-4.3% to +3.8%), and SCPA's strong concentration of firm renewable resources like geothermal lead to a total portfolio variance of less than +/- 2%. Additionally, SCPA has not had any experience with an outright financial or physical failure of online generation. Periodic outages have occurred historically due to wildfires, transmission outages, and PSPS Events, but are small enough in scope to not measurably impact RPS compliance.

Table 4: Variability in Stochastic Generation Model for 2023 vs. Mean

Generation Source	5 th Percentile	95 th Percentile
Golden Hills Wind	-9.5%	+11.8%
All SCPA Intermittent Resources	-4.3%	+3.8%
SCPA RPS Portfolio	-1.8%	+1.6%

- **Curtailment:** SCPA’s experience with curtailment is discussed further in Section XIII.

SCPA currently self-schedules all RPS generation and does not currently see curtailment as a significant risk to RPS compliance. Installation of battery storage adjacent to SCPA’s existing solar facility and the inclusion of storage in future planned solar facilities should also minimize the risk of curtailment.

Risk Assessment Model

SCPA has completed a risk assessment of its RPS portfolio by modeling risks described above that are high or medium in severity. Table 5 below includes details on the framework SCPA has employed to independently model each risk and the resulting impact to three key compliance considerations for SCPA: the overall net RPS position for 2025 (unrisked scenario currently has 0.5% of sales excess), the overall net RPS position for 2026 (unrisked scenario currently has a 0.4% sales deficiency), and the long-term position in 2027 (unrisked scenario has a 4.4% sales deficiency). Risks are evaluated relative to ~~CPUC~~the Commission’s compliance requirements rather than to SCPA voluntary targets.

Table 5: SCPA RPS Portfolio Risk Modeling Framework and Compliance Impact

Risk	Modeling Approach	MMoP Scenario Probability	2025 Net RPS Position (% of Sales)	2026 Net RPS Position (% of Sales)	2027 Long-term Position (% of Sales)
Geothermal Exploration Risk	Assume only 51.2% of the capacity in the larger exploration-dependent contract is built	33%	Introduces 0.8% deficiency	Expands deficiency to 2.7%	Expands deficiency to 7.1%
Electrification Adoption Timing	Assume a 3-year acceleration in the projected growth in EV adoption and building electrification impacts shown in Figure 1.	25%	Introduces 1.6% deficiency	Expands deficiency to 3.0%	Expands deficiency to 6.2%
Transmission Deliverability	Assume the 11.6 MW Tubbs Island solar project dependent on an Independent Study Process is not built.	50%	Introduces 0.9% deficiency	Expands deficiency to 1.8%	Expands deficiency to 5.7%
Permitting	Assume only 70% of capacity in permit-dependent projects (11.6 MW Tubbs Island solar and geothermal contracts) is built.		Introduces 0.9% deficiency	Expands deficiency to 2.4%	Expands deficiency to 6.6%
Supply Chain				No Impact	No Impact
Load Variability	Increase load by a straight-line interpolation of the +3.7% in 2023 and +14.7% bookend sensitivity		Introduces 2.6% deficiency	Introduces 4.2% deficiency	Expands deficiency to 7.1%

The results from Table 5 provide a reliable assessment of the potential for independent risks to impact RPS compliance. However, adding these risks together results in an unrealistically pessimistic scenario, especially because several of the risks overlap. Accordingly, SCPA has taken the additional step of developing a deterministic scenario using a subset of the risks in Table 5 that have a higher probability of occurrence or are more difficult to mitigate to calibrate a Minimum Margin of Over-Procurement (“MMoP”).

The risks included in this scenario are assigned a probability in the “MMoP Scenario” column in Table 5 and results are discussed in Section IX.A. These probabilities are assigned based on SCPA’s judgement, as there is insufficient analog data to statistically calibrate these occurrences. Permitting risk was not included because it overlaps with transmission and

geothermal exploration risk. Load variability was not included because it overlaps with electrification adoption and can be mitigated by following SCPA's process of updating load forecasts and procurement plans each year which is also why it was assigned a mid-level severity despite its potentially large compliance impact.

Strategies to Address Risk

SCPA addresses RPS generation resource risk by maintaining a diversified portfolio. SCPA maintains diversity in counterparties, resource types, project sizes, and locations of RPS facilities. SCPA addresses risk of overall RPS compliance by its MMoP detailed in Section IX. SCPA can utilize short-term contracts for additional RPS quantities, if necessary. SCPA can solicit for new long-term RPS generation resources if an existing contract is terminated. Though SCPA may utilize short-term RPS contracts, SCPA will exceed all long-term contracting requirements and will demonstrate this in the annual RPS Compliance filing due August 2022. Over-procurement beyond SCPA's targets can be mitigated either by selling excess energy to third parties or simply by retaining the RPS generation and exceeding its targets.

System Reliability

SCPA's current and planned procurement is sufficient to meet the applicable RPS procurement requirements, California's GHG reduction targets, and support system reliability by considering both portfolio diversification and alignment with SCPA customers' hourly load curve. Specifically, the projects that are currently under development fit within and support SCPA's plans for meeting these goals.

The capacity value of resources is a key consideration in selecting resources to fulfill SCPA's long-term RPS obligations. As previously stated, SCPA currently only plans to contract with solar that is co-located with storage with Full Capacity Deliverability Status ("FCDS")

capability. SCPA is also strategically focused on growing baseload renewables that will provide high-capacity value to the grid through the new geothermal contracts reflected in this filing and SCPA's investment in the GeoZone initiative to grow local geothermal power. Meanwhile, SCPA's procurement of local resources to satisfy Board of Directors requirements in its LRP, including the 11.6 MW Tubbs Island solar facility with co-located storage, are expected to reduce the constraints on high-voltage transmission lines in SCPA's region that reach capacity during large-scale PSPS events.

Lessons Learned

In 2021, SCPA's Board of Directors adopted a detailed Energy Risk Management Policy which is actively monitored by SCPA's Risk Oversight Committee ("ROC"). The Energy Risk Management Policy exists to limit SCPA's exposure to unnecessary risks and provide clear guidance for SCPA's procurement-related decisions. The ROC serves in an oversight and advisory role which governs and ensures adherence to SCPA's Energy Risk Management Policy and advises SCPA's CEO on prudent risk management.

The ROC evaluates energy market transactions for consistency with SCPA's procurement strategy, its RPS, IRP, GHG, Resource Adequacy ("RA"), energy storage targets, and established risk tolerances.

The ROC also validates that risk management controls and practices appropriately monitor SCPA's risk exposure. The ROC reviews risk management reports provided by SCPA's Middle Office. These reports contain quantitative metrics by which the ROC can assess SCPA's performance.

- **Establishing an independent department to quantify risk:**

In 2020, SCPA created a new department solely dedicated to Planning and Analytics.

This data-based team provides analysis and forecasts of every aspect of SCPA's load, resources, customer participation, GHG emissions, RPS generation output, and more. Since the new department is independent of SCPA's Power Procurement department, it creates an independent assessment of SCPA's portfolio with respect to the likelihood of complying with future regulatory obligations.

- **Relying on strong modeling tools:**

SCPA contracted with Ascend Analytics which utilizes PowerSimm, a stochastic modeling platform, to evaluate resource selection and overall portfolio scenarios under a host of risks and future scenarios. This platform is operated by SCPA's Planning and Analytics department and provides a detailed understanding of specific sensitivities to many different kinds of risk, including risks associated with deliverability – an issue of key concern with respect to summer capacity far into the future. These range from price changes at specific p-nodes, to variations in generation to modifications, to Effective Load Carrying Capability ("ELCC") methodology and changes in demand. Specifically, the tool utilizes market intelligence to forecast hourly and sub-hourly energy prices, congestion, volatility, ancillary services, PPA prices, and provides scenarios for variables contributing to assumptions such as low/high natural gas prices, EV adoption rates, and storage adoption rates. Resource and load modeling factors consider weather variability, dispatch optimization, and SCPA defined constraints such as RPS targets, GHG emissions, costs, reliability, and system power reliance. PowerSimm can provide reports on net position by year, gross margin at risk, and potential future exposure using stochastic modeling.

- **Financial Resilience When Risk Mitigation is Insufficient:**

SCPA has been preparing for another potential energy crisis since its inception. This is

why SCPA maintains a minimum reserves of 180 days cash reserves on hand and carries no debt. This conservative fiscal management is perhaps one of SCPA's most important risk management tools for achieving California's long-term RPS objectives because it facilitates contracting for new resources and allows SCPA to sustain its progress through adverse economic conditions.

VIII. Renewable Net Short Calculation

SCPA is including Appendix B – Renewable Net Short Template, which is a quantitative assessment to support the qualitative descriptions provided in this ~~Draft~~ 2022 RPS Procurement Plan. The quantitative information in Appendix B presents resources that are procured under existing contracts only. Note that the actual quantities for 2017-2021 are shown for the year in which the REC was retired for RPS. The entry for the Voluntary Margin of Over-Procurement ("VMO_P") is inclusive of *both* a M_{MoP} and VMO_P, and referred in Section IX as Total Margin of Over-Procurement ("TMO_P").

IX. Minimum Margin of Procurement (M_{MoP})

In 2018, the SCPA Board of Directors committed to delivering 50% RPS by 2020, six years ahead of the compliance schedule. SCPA actually achieved this target in 2019, seven years ahead of the compliance schedule. To satisfy its own requirements, SCPA is planning to focus its above-compliance performance on carbon mitigation rather than exceeding RPS percentages as well as on adequate procurement to continue delivering at least 50% RPS through 2026, and, SCPA will then follow the trajectory of compliance requirements to 60% by 2030. Additionally, SCPA's planned procurement incorporates the M_{MoP} discussed in Section IX.A to mitigate the compliance risks discussed in Section VII.

SCPA's 2020 IRP portfolio contained measurably more renewables than required

by California or Board of Directors-imposed requirements, reaching up to 76.4% by 2030.

In the Final 2021 RPS Procurement Plan, SCPA represented the renewable resources in the IRP as margin of over-procurement. Although preliminary modeling to inform the 2022 IRP indicates SCPA's optimum portfolio may include higher levels of RPS, SCPA is revising its TMoP to only include the following:

1. Historical or forecasted RPS generation under contract in excess of compliance requirements;
2. Planned RPS procurement to reach SCPA's Board of Directors-imposed 50% RPS target through 2026; and
3. If needed, additional planned RPS procurement to reach the MMoP calculated in Section XI.A above the RPS compliance obligation.

Redefining the scope of TMoP avoids SCPA overcommitting to RPS generation that is not contracted or motivated by a compliance or self-imposed requirement. As SCPA contracts additional supply to satisfy its IRP, or if the SCPA Board of Directors adopts a revised RPS-specific target, TMoP will be revised in future RPS procurement plans.

Section XV discusses the potential RPS development beyond the representation in the TMoP in SCPA's IRP. Section IX.B provides a breakdown of the TMoP between MMoP and VMoP.

IX.A. MMoP Methodology and Inputs

SCPA has Total RPS Eligible Procurement (*i.e.* procurement under contract) in excess of the Gross RPS Procurement Quantity Requirement through 2025 as shown in Appendix B. Additionally, SCPA expects to satisfy its long-term procurement obligation through 2026, as

demonstrated in Table 1. SCPA is also actively working on contracts that will add to the Total RPS Eligible Procurement, further exceeding the requirements of RPS.

SCPA routinely tracks the variability in forecasted versus actual load and generation, and can utilize short-term contracts for additional RPS quantities, if necessary. Though SCPA may utilize some short-term RPS contracts, SCPA will exceed all long-term contracting requirements which will be reported in SCPA’s annual RPS Compliance Report filing.

To develop a discrete MMoP, SCPA used the deterministic scenario discussed in Section VII and captured in the “MMoP Scenario Probability” column in Table 5. This scenario is represented quantitatively as Appendix F. In the quantitative analysis, load is increased for a 25% chance of a 3-year electrification acceleration. RECs from facilities in development are decreased to reflect [REDACTED], a 50% chance of failure for the 11.6 MW Tubbs Island local solar facility due to transmission risks, and a 33% risk that the exploration-risked geothermal projects are not built. The decrease in the net RPS position relative to the compliance is used to calculate a MMoP. Table 6 shows the results of this analysis, along with a conversion of the MMoP into the percentage of retail sales forecasted in Appendix B.

Table 6: SCPA MMoP Calculation

Measure	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MMoP Scenario Compliance Net RPS Position (MWh)	45,096	35,594	-27,837	-58,386	-553,826	-630,011	-721,345	-796,805	-821,668	-857,398
Appendix B Compliance Net RPS Position (MWh)	124,900	153,953	10,239	-9,272	-498,406	-571,092	-658,580	-729,202	-749,551	-779,966
MMoP (MWh)	79,804	118,359	38,076	49,114	55,420	58,919	62,765	67,603	72,117	77,432
MMoP (% of Sales)	3.6%	5.4%	1.7%	2.2%	2.5%	2.7%	2.8%	3.0%	3.1%	3.3%

The resulting MMoP from the deterministic scenario aligns with SCPA’s view of overall market conditions. RPS scheduled to come online in 2023 and 2024 are at increased risk due to short-term supply chain and transmission interconnection issues that are expected to abate. These factors become particularly acute in 2024, when the largest share of obligation to satisfy the MTR order is due. Long-term, there is a residual risk with delivering new RPS contracts that requires around 3% of over-procurement.

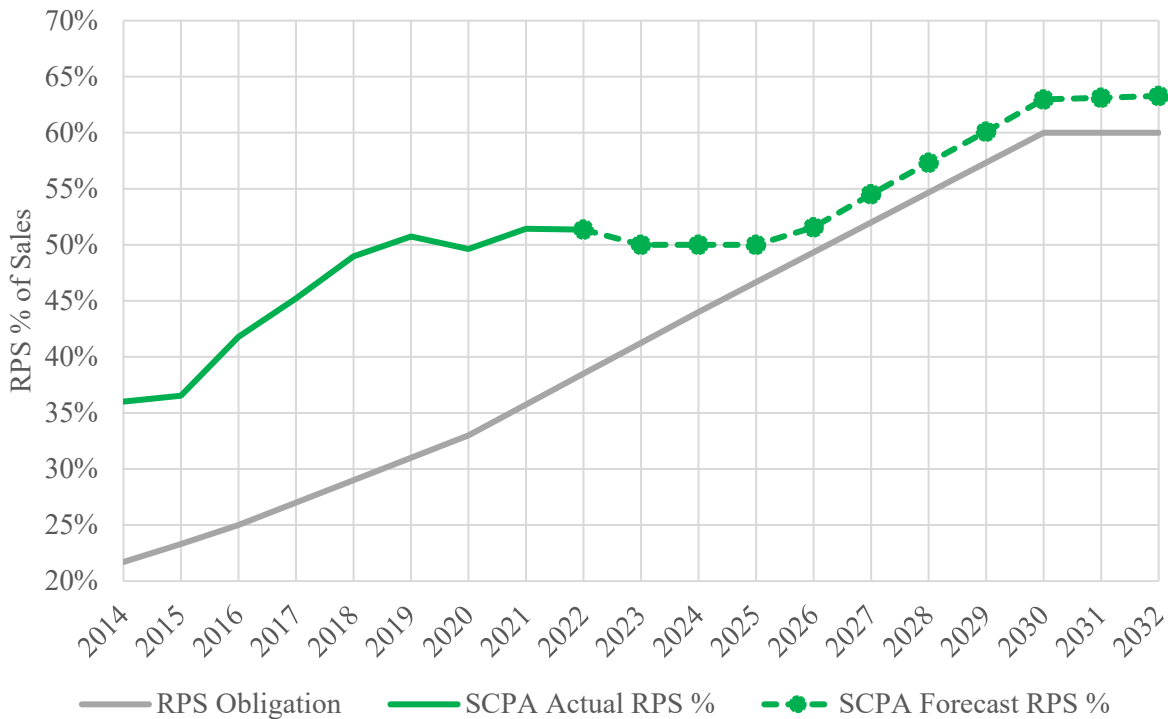
The results from Table 6 are used to allocate the TMoP into MMoP and VMoP. As discussed in Section IX, SCPA’s TMoP is comprised of three components: excess contracted RPS, RPS for internal benchmarks, and, if needed, additional RPS to cover MMoP requirements. Table 7 shows the allocation between MMoP and VMoP, where excess is first used to satisfy MMoP, and remaining excess is represented as VMoP.

Table 7: SCPA Margin of Over-Procurement Allocation

Measure	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
TMoP (MWh)	193,715	132,460	73,060	49,114	55,420	58,919	62,765	67,603	72,117	77,432
MMoP (MWh)	79,804	118,359	38,076	49,114	55,420	58,919	62,765	67,603	72,117	77,432
VMoP (MWh)	113,912	14,101	34,984	0	0	0	0	0	0	0
VMoP (% of Sales)	5.1%	0.6%	1.6%	0%	0%	0%	0%	0%	0%	0%

SCPA has consistently exceeded California RPS minimum target since it began serving customers in 2014. The historical RPS performance from 2014 to date and the future planned RPS performance incorporating the TMoP are compared to California’s RPS requirements from 2014 through 2032 as shown in Figure 2 below.

Figure 2: SCPA RPS % Compared to Obligation



IX.B. MMoP Scenarios

SCPA utilizes the TMoP to calculate its renewable net short (Annual Net RPS Position after Bank Optimization) as shown in Appendix B. A risk assessment of SCPA's renewable net short position is provided in Section VII. The RECs reported in the Quantitative Response in Appendix B are not adjusted for risk. Rather, SCPA takes the approach of mitigating risk through the use of MMoP.

The deterministic scenario described in section IX.A to calibrate MMoP is included as a separate quantitative assessment as Appendix F. As discussed in section IX.A, the retail sales in this assessment are increased to reflect a 25% chance of a 3-year acceleration in electrification. Additionally, the risk-adjusted RECs from facilities in development are decreased to reflect [REDACTED] a 50% probability of failure for the local 11.6 MW Tubbs Island solar project, and a 33% risk that the geothermal exploration-

dependent projects are not built. The development forecast failure rate in Appendix F represents the ratio of the resulting RPS volumes to the un-risked volumes represented in Appendix B. The same TMoP as Appendix B is entered as VMoP, to illustrate the impact of over-procurement on mitigating compliance risk in this scenario. The results indicate that Compliance Period 4 (2021-2024) is well above its obligation. As with the un-risked scenario shown in Appendix B, future compliance periods are out of compliance—but by an additional margin of around 2%. SCPA will need to focus on additional long-term procurement to extend its compliance with the long-term obligation.

X. Bid Solicitation Protocol

X.A. Solicitation Protocols for Renewables Sales

SCPA does not have immediate plans to issue a solicitation for sales of renewable energy products.

X.B. Bid Selection Protocols

Consistent with Pub. Util. Code § 399.13(a)(6)(C), SCPA conducts and responds to solicitations for procuring energy resources that includes specific needs for eligible renewable energy resources, generating capacity, locational preferences, generation profile, and required online dates to assist in determining what resources fit best within a portfolio. Since CCA program Governing Boards are comprised of local elected officials, these solicitation and procurement decisions are overseen by elected representatives of the ratepayers. These solicitation and procurement decisions must comply with California’s RPS requirements as well as locally established policies.

Subsequent to the Final 2021 RPS Procurement Plan, SCPA issued two new RPS-related solicitations. As a member of California Community Power, SCPA joined nine other CCAs in

soliciting resources to satisfy its clean firm resource obligation in December 2021. This solicitation led to the execution of the two geothermal contracts in May 2022 that are included in the ~~Draft~~ 2022 RPS Procurement Plan. In January 2022, SCPA joined Silicon Valley Clean Energy and Central California Community Energy in issuing a solicitation for various other MTR requirements, including the zero-emitting generation category which requires storage to be paired with generation. SCPA is currently under exclusivity for a project from this solicitation in this category that will contribute to its RPS position and is reflected in the last two rows on Table 1.

SCPA has also responded to a number of solicitations for RPS since filing the Final 2021 RPS Procurement Plan.

Table 8: SCPA Solicitation Responses

Counterparty	Solicitation Submission Date	Transaction Date
Southern California Edison	April 2021	May 2021
San Diego Gas and Electric	April 2021	June 2021
City of Palo Alto	April 2021	None
Clean Power Alliance	April 2021	None
PG&E	May 2021	None
Southern California Edison	July 2021	August 2021
PG&E	August 2021	None
Southern California Edison	October 2021	December 2021
PG&E	January 2022	None
Southern California Edison	March 2022	May 2022

Consistent with the direction in the ACR, SCPA has provided a copy of its most recent solicitation materials to Commission Energy Division staff. SCPA’s most recent solicitation information is provided in Appendix E.

X.C. LCBF Criteria

The Least-Cost Best Fit (“LCBF”) methodologies approved by the Commission pursuant to D.04-07-029, D.11-04-030, D.12-11-016, D.14-11-042, and D.16-12-044 are

expressly only directly applicable to investor-owned utilities and the Commission does not have jurisdiction over the solicitation protocols of CCAs. However, SCPA places a high degree of importance on resource costs because SCPA is a customer-owned public agency governed by locally elected officials and does not have guaranteed cost recovery. Additionally, consistent with Pub. Util. Code § 399.13(a)(9),¹ SCPA also considers best-fit attributes that support a balanced mix of resources to help support reliability of the electrical grid. SCPA's solicitation evaluation criteria include viability of projects, status of project interconnection and permitting, counterparty risk assessment, commercial operation date and delivery term, hourly generation profile as it relates to SCPA's demand profile, CAISO deliverability, location of project, emissions and air pollution reduction, pricing and pricing structure, energy value, congestion costs, operational flexibility and curtailment terms, and collateral terms.

Additionally, the requirement of Pub. Util. Code § 399.13(a)(8) to give preference to renewable projects located in certain communities is only expressly applicable to “electrical corporations” and is not mandatory for CCAs.² However, SCPA fully recognizes the need to help mitigate the impacts of air pollution in regions of California where communities have been disproportionately impacted by the existing generating fleet and the need to bring economic benefits to communities with high levels of poverty and unemployment.

Consistent with this recognition, SCPA has developed an advanced distributed energy resource (“DER”) dispatch platform that actively manages thousands of customer-owned

¹ Cal. Pub. Util. Code § 399.13(a)(9) (“In soliciting and procuring eligible renewable energy resources, each retail seller shall consider the best-fit attributes of resource types that ensure a balanced resource mix to maintain the reliability of the electrical grid.”).

² Cal. Pub. Util. Code § 399.13(a)(8)(1) (“In soliciting and procuring eligible renewable energy resources for California-based projects, each electrical corporation shall give preference to renewable energy projects that provide environmental and economic benefits to communities afflicted with poverty or high unemployment, or that suffer from high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases.”).

devices to shape load and mitigate against CAISO Stage 2 and 3 alerts, as well as shape SCPA's load to improve grid reliability more generally. These devices currently include electric vehicle charges, smart thermostats, heat pumps and heat pump water heaters, and just recently started including a non-technical behavioral program to allow people to manually contribute to demand response events as well. The goal is to improve system reliability and lower dependency on thermal units for system capacity to support the timely retirement of once-through cooling units and also to fulfill the goals of SB 100.

SCPA has used CalEnviroScreen 3.0 to identify disadvantaged communities within SCPA territory. There is one census tract within SCPA's service territory that is within the top 25% of impacted census tracts on a statewide basis. Note that the pollution burden percentile in this tract is not identified as being within the top 25%. The tract identified is census tract 6097153200 in Southwest Santa Rosa with a population of 7,522. SCPA estimates that this tract represents 1.3% of its service territory.

SCPA does not have contracts for energy with GHG emitting resources in disadvantaged communities. The CalEnviroScreen 3.0 map identifies two existing SCPA resources in Kings County and one new SCPA resource in Stanislaus County located within IRP defined disadvantaged communities. All three resources are solar photovoltaic resources that do not contribute to pollution burden. SCPA does not plan to procure any new fossil resources that would contribute to pollution burden.

SCPA will require respondents in future bid solicitations to provide information during the bid process assessing the impacts on and benefits for disadvantaged communities. This would include identifying the CalEnviroScreen score of the community in which the project will be located and any increases or decreases in air pollution and other environmental impacts due to

the proposed project. The solicitation will also require the respondent to provide information on employment and workforce development. The information required will include identifying the number of new jobs created during construction and operation phases, employment, and any training opportunities for individuals residing in disadvantaged communities. SCPA will assess bid projects' socioeconomic benefits and environmental impacts on disadvantaged communities. SCPA will not consider projects that negatively impact disadvantaged communities.

As part of its core mission, SCPA works to minimize criteria air pollutants. For this reason, SCPA has a clean supply portfolio that depends in large part on zero- and very low-emission generation technologies. In addition, many of SCPA's customer programs are designed to improve local air quality and serve regional needs. Some of SCPA's programs support transportation electrification, such as:

- Drive EV, which has enabled bulk discounts averaging more than \$8,500 per car for the purchase or lease of 1,258 electric vehicles (EVs) over three iterations of the program between 2016 and 2018. 10% of program participants were CARE/FERA customers.
- By the end of 2021, SCPA supplied EV charging equipment for residents, with over 3,500 Level 2 smart chargers deployed. Over 1,400 of those customers earned \$5 bill credits per month to participate in demand response events to promote renewable integration and reliability.
- SCPA provided a CALeVIP grant to deploy EV chargers throughout SCPA's service territory to meet regional needs with funding from the CEC. The program will expand the local network of public chargers with approximately 120 level 2 chargers and 40

DC Fast Charging stations located in both Sonoma and Mendocino Counties. The new chargers will be available by the summer of 2023.

- SCPA offers nonprofits in Sonoma and Mendocino counties an incentive of \$12,500 toward the purchase of an EV or plug-in hybrid with at least 25 electric miles. So far, 14 nonprofits have taken advantage of this incentive to purchase EVs.
- SCPA's electric bicycle incentive program (Bike Electric) provided 420 low-to-moderate income customers with a \$1,000 rebate towards the purchase of an eBike in 2021. SCPA worked with local bike retailers and the Sonoma County Bike Coalition to promote local sales, provided 117 free helmets, and delivered free bike safety trainings for 50 participants.

SCPA opened its Advanced Energy Center in June 2021 in partnership with the CEC to create a showcase for the complete transition of buildings to 100% renewable and carbon-free electricity. The 10,000 square foot facility provides contractor training, a showroom of technology, an all-electric demonstration kitchen, a customer support team, and 0% on-bill financing for home retrofits. A key element of the Advanced Energy Center is that almost all of the equipment costs of energy efficient appliances for low-income / CARE customers are covered by rebates. Those customers only pay for installation costs and have the ability to finance those costs at 0% interest on their SCPA electric bills. Other programs support behind-the-meter battery storage, DERs, energy efficiency kits, and building electrification.

As part of SCPA's commitment to its community, SCPA is helping to rebuild the communities impacted by the October 2017 wildfires. SCPA committed \$1 million to relief efforts and aided in coordinating funding requests for the region. SCPA recruited PG&E to partner on a joint program for the rebuild effort to incentivize deep energy efficiency, EV

charging, onsite renewable energy with storage, and the avoidance of natural gas connections. Due to the success of this program, PG&E replicated it in Paradise, site of the 2018 Camp Fire.

Additionally, the Advanced Energy Build program provides all-electric new home construction up to \$5,000 of incentives. This program is expected to help build over 650 units of gas-free single- and multi-family homes, with over 85% of funding going towards affordable housing.

XI. Safety Considerations

SCPA holds safety as a top priority. Since SCPA does not own, operate, or control generation facilities, SCPA's procurement of renewable resources does not present any **uniquedirect** safety risks. This Section describes how SCPA has taken actions to reduce the safety risks posed by its renewable resource portfolio and how SCPA supports California's environmental, safety, and energy policy goals.

(i) Decommissioning Facilities

SCPA contracts for its PPAs in a manner that all end-of-life disposal obligations are the responsibility of its counterparties. Therefore, SCPA does not make specific plans for deconstruction or environmental remediation, which are generally criteria that lead agencies establish for developers at the time of CEQA determination and criteria that are established by California and local authorities to obtain necessary permits. SCPA requires developers to adhere to all environmental requirements of their permits to construct and operate facilities under PPAs with SCPA.

(ii) Climate Change Adaptation

SCPA considers numerous risks when determining generating resources to procure. In addition to the ordinary energy market risks such as transmission congestion, curtailment, and

matching SCPA's hourly load profile, SCPA also considers risks relating to geographic overconcentration to help mitigate threats related to earthquakes, storms, and wildfires. SCPA is forecasting an increase in storm and wildfire intensity as a result of the climate crisis.

Unfortunately, flood risk has become more difficult to evaluate with the climate crisis since FEMA flood risk maps are no longer tracking to historic data and are no longer a reasonable predictor of flood risk. Avoiding sites in floodplains and low-lying coastal areas is relatively straightforward, but evaluating risk of flood damage from unusually heavy rain events is much more challenging. As a result, SCPA has placed the burden of ensuring sufficient generation output onto its suppliers and organized its portfolio to be geographically and technologically diverse.

(iii) Impacts During PSPS Events

PSPS events can have a moderate, but important, impact on SCPA's portfolio of renewable resources. The following resources can be shutoff or curtailed during local PG&E PSPS events:

- A portion of SCPA's 50 MW of geothermal from Geysers. Note that it is unlikely that all Geysers transmission would be shut down in a PSPS, so it is unlikely that SCPA would lose more than a fraction of its contracted supply.
- Any of the 6 MW of feed-in tariff solar power facilities located within SCPA's service territory.
- Any of the new local renewable generation resources and storage constructed as part of SCPA's local resource solicitation.
- An unknown amount of other renewable resources located outside SCPA's territory with PSPS-caused transmission Force Majeure. This is assumed to be

both small and very rare, and is therefore ignored for this purpose.

SCPA has analyzed each of the past PSPS events to determine the renewable energy impacts and has determined that the volume of customers shutdown by PG&E more than offsets the loss in renewable energy output of SCPA's local facilities. In 2019, SCPA's Lavio 1 MW solar feed-in-tariff project experienced three separate PSPS shutdowns for a total of 8.5 days of solar production. The loss of renewable supply was far less than the loss of customer load during these events. The Geysers facility was partially shutdown due to a Force Majeure event separate from PSPS. As a result, SCPA has determined that the impact of PSPS events is unlikely to have a negative impact on SCPA's percentage of renewable energy delivered to customers.

XII. Consideration of Price Adjustment Mechanisms

SCPA does not include price adjustment mechanisms in its contracts. Instead, SCPA asks suppliers to incorporate the risk of cost increases from both inflation and project scope into its bid price. Experience has proven that this strategy has protected SCPA ratepayers. It also enables a more fair and transparent process for evaluating solicitation responses.

XIII. Curtailment Frequency, Forecasting, Costs

This Section responds to the questions presented in Section 6.13 of the ACR³ and describe SCPA's strategies and experience so far in managing SCPA's exposure to negative pricing events, overgeneration, and economic curtailment for SCPA's region and portfolio of renewable resources.

(i) Factors Having the Most Impact on the Projected Increases in Incidences of Overgeneration and Negative Market Price Hours

SCPA continues to track the many changes occurring in the California energy market,

³ ACR at 34.

including considerations related to energy curtailment with increased solar buildout, forecasts of storage value by duration and location over time, and the potential for different kinds of customer-owned resources to contribute to solutions. The following represents SCPA's understanding of this topic, which may impact future procurement processes.

Due in large part to the rapid increase in the amount of wind and solar generating facilities that have been built throughout the western United States, the CAISO balancing authority area has experienced an increasing frequency and magnitude of curtailment and negative pricing events. As of 2021, California has over 15,000 MW of solar and 6,200 MW of wind capacity.⁴

This increased capacity results in discrete periods where the majority of load in the CAISO is served by solar and wind resources. The monthly maximum load served by wind and solar in the CAISO has averaged 65.8% over the past 3 years (March 2019 to March 2022), and in March of 2022 the monthly maximum load exceeded 96% with solar representing over 72%.⁵ When combined with the current need to operate natural gas peaking power plants at their minimum setting to ensure quick ramping capability, mandatory seasonal hydropower flows, and Title 24 building codes requiring solar on most new residential rooftops, oversupply in solar hours is now a more common issue, as was widely expected.

To address the resulting instances of over-supply, the amount of curtailment of solar and wind in the CAISO has significantly increased. In 2015, curtailments totaled 187 GWh. By 2021, curtailments reached 1,505 GWh. Curtailments have already reached 1,379 GWh in the first four

⁴ California Energy Commission, Renewable Electric Generation Capacity and Energy, May 2022, *available at* <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/electric-generation-capacity-and-energy>.

⁵ CAISO, Monthly Renewables Performance Report, March 2022, *available at* <http://www.caiso.com/Documents/MonthlyRenewablesPerformanceReport-Mar2022.html>.

months of 2022.⁶

Curtailment is typically highest during the months of March, April, and May when hydroelectric generation is historically at its highest and air conditioning loads are still low. California has experience with both above average snowpack and extreme drought in the past few years, so the extreme variability in total and seasonal California hydropower output is considered a large factor in SCPA's portfolio management. With the buildout of battery storage, SCPA anticipates solar curtailments to stabilize and potentially decrease as batteries are able to charge during the hours of the day with the lowest prices, typically during curtailment hours. In general, SCPA plans for greater variability in hydropower output that will trend lower average output over time, but with occasional higher output from wetter and colder years.

(ii) Written Description of Quantitative Analysis of Forecast of the Number of Hours Per Year of Negative Market Pricing for the Next 10 Years

SCPA currently schedules its Variable Energy Resources ("VERs") into the CAISO market and is partially exposed to negative pricing at each resource's pricing node. Negative pricing occurs in the Day Ahead market ("DA"), Fifteen Minute Market ("FMM"), and Real Time ("RT") market typically as a result of local or systemwide negative congestion. Although SCPA can be exposed to negative pricing from imbalance between markets, the principal risk is in the market a resource is scheduled.

The total number of net negative pricing hours experienced by all SCPA VERs from January 2018 through April 2022 are shown in Table 9, broken down by the market schedule. The number of hours shown in Table 9 are the total across all SCPA solar and wind VERs resources. SCPA is seeing a recent reduction in negative pricing hours, which is likely due to the

⁶ CAISO, Managing Oversupply, Wind and Solar Curtailment Totals, obtained May 31, 2022, *available at* <http://www.caiso.com/informed/Pages/ManagingOversupply.aspx>.

installation of co-located storage at its solar facility in 2021.

Table 9: Number of Negative Pricing Hours for SCPA VERs

Market Schedule	2018	2019	2020	2021	Jan-Apr 2022
DA	204	342	574	208	380
FMM	144	186	163	131	55

Negative prices and associated costs occurred mainly between March and May, during the Pacific Northwest freshet, when higher than normal water levels impact hydroelectric supply and consequently power prices across the Western Electricity Coordinating Council.

SCPA does not provide a forecast for number of hours per year of negative pricing for its VERs as it is very difficult to accurately and precisely predict the impact that the expansion of the Energy Imbalance Market (“EIM”), the increased deployment of battery storage systems, and the retirement of system resources such as Diablo Canyon, amongst many other variables, will have on nodal pricing.

(iii) Experience, to Date, With Managing Exposure to Negative Market Prices and/or Lessons Learned from Other Retail Sellers in California

SCPA takes action to limit the impacts of curtailment on its ratepayers. SCPA pursues and implements contract terms that recognize and limit the potential financial impacts of negative pricing, and give SCPA greater flexibility to direct economic curtailment. SCPA also evaluates new procurement opportunities by evaluating the proposed project location and nearby historical negative pricing and congestion. SCPA has contracted and is actively exploring battery storage systems at existing resources as well as new hybrid projects, and has a particular focus on modeling the locational value of storage resources.

(iv) Direct Costs Incurred, to Date, for Incidences of Overgeneration and

Associated Negative Market Prices

While not a result of CAISO incidences of overgeneration as defined by CAISO, SCPA incurred costs of approximately \$50,000 over a total of 7,900 MWh at negative pricing hours for all VERs in 2021. This represents a negligible amount of total energy costs for SCPA ratepayers over the same time period, even when considered specifically for intermittent resources. Negative pricing occurred for resources scheduled in the DA market and FMM as shown in Table 10.

Table 10: Costs from Negative Pricing in 2021

Market Schedule	Volume Weighted Average Price (VWAP) during negative pricing hours only (\$/MWh)	Volume during negative pricing hours only (MWh)
DA	2.30	4,874
FMM	12.05	3,012

(v) Overall Strategy for Managing the Overall Cost Impact of Increasing Incidences of Overgeneration and Negative Market Prices

While curtailment is a viable renewable integration strategy that is generally more cost-effective than other options, there are potential negative consequences from excessive curtailment. Curtailment of solar and wind represents a lost opportunity to generate zero GHG emitting electricity, and excessive curtailment could impact the ability of California to meet its environmental and energy policy goals. Additionally, these over-supply situations expose ratepayers to increased costs – LSEs must either economically curtail the generating resource by often paying for the electricity that was not generated, or generate power and be exposed to negative prices. Because these conditions are largely driven by California policy, it is appropriate to consider macro-level mitigation measures through CAISO initiatives, Commission rulemakings, and possibly even legislation.

There are a number of measures and policies that have already been implemented or are currently being pursued that will have significant impacts on how substantial curtailment will be in the future. These include the expansion of the EIM, improvements to the CAISO market design and structure, enhanced forecasting capabilities, improved time-of-use rates, improved EV charging functionalities, and smart deployment of DERs. Recently, SCPA has experimented with promoted workplace EV charging. SCPA has learned this may have significant potential to address curtailment while simultaneously providing access to EVs for renters and drivers who have only street parking options. The Commission's IRP proceeding will be an appropriate forum to measure the impact of these policies and the effect that they will have on future curtailment. These new measures will need to be modeled and incorporated into forecasts of future curtailment.

SCPA considers the impact of curtailment and negative pricing on its individual portfolio and factors potential curtailment into its long-term planning. Due to the difficulty in accurately forecasting curtailment, SCPA reviews the historical data on curtailment and negative pricing for the regions where SCPA has contracted or owns generating resources. When SCPA is evaluating new procurement, the potential amount of future curtailment is one factor that SCPA considers by evaluating nearby negative pricing and congestion. Additionally, SCPA takes action to limit the impacts of curtailment on its ratepayers. SCPA pursues contract terms that recognize and limit the potential financial impacts of negative pricing and give SCPA greater flexibility to direct economic curtailment. SCPA is also actively assessing energy storage opportunities on projects in areas with historic or expected future negative pricing.

(vi). Contract Terms Included in RPS Contracts Intended to Reduce the Likelihood of Curtailment or Protect Against Negative Prices

SCPA includes contract terms in its PPAs that allows rights to dispatch the resource,

where applicable, which could lead to an economic curtailment of the resource in the event of significant negative pricing. However, SCPA is still obligated to pay for deemed energy. In addition, SCPA includes contract language that requires the seller to use “commercially reasonable efforts to minimize the extent, amount and duration of any curtailments.” Finally, SCPA includes language in each of its PPAs for resources paired with storage that allows charging the storage resource from the grid. In some cases, this can only occur after a 5-year period of restricted charging due to investment tax credit restrictions. However, this grid charging could further negatively suppress pricing in the area.

XIV. Cost Quantification

SCPA has provided the Cost Quantification Table as Appendix D. Pursuant to the direction in the ACR, SCPA has completed those cells in the Cost Quantification Table that correspond to Table 3, Rows 1-5 in the ACR.

XV. Coordination with the IRP Proceeding

SCPA is including resources in the ~~Draft~~ 2022 RPS Procurement Plan that are currently contracted and have a very strong likelihood of being represented in SCPA’s 2022 IRP portfolios due November 1, 2022. As discussed in Section IX, SCPA’s 2020 IRP portfolios contained additional RPS that may also be part of the 2022 IRP portfolio, but are not included in the ~~Draft~~ 2022 RPS Procurement Plan to avoid over-representing SCPA’s procurement commitment. As required by the ACR,⁷ Table 11, below, describes how SCPA’s ~~Draft 2022~~ RPS Procurement Plan conforms with the determinations made in the IRP Proceedings (R.16-02-007 and R.20-05-003). Discussion of the potential for incremental RPS in the 2022 IRP portfolio is included in the table as well.

⁷ ACR at 30-33.

Table 11: Conformity with the IRP

IRP Section Subsection	RPS Alignment in IRPs	
III. Study Results A. Conforming and Alternative Portfolios	<p><i>1. Existing RPS resources that the retail seller owns or contracts.</i></p> <p><i>2. Existing RPS resources that the retail seller plans to contract with in the future.</i></p> <p><i>3. New RPS resources that the retail seller plans to invest in.</i></p> <p><i>4. New and existing resources that will be used to meet Mid-Term Reliability obligations adopted in D.21-06-035.</i></p>	<p><i>1. Existing RPS resources that the retail seller owns or contracts.</i></p> <p>SCPA’s 2020 IRP preferred portfolio, this 2022 Draft Procurement Plan, and the 2022 IRP portfolios are expected to share the following existing RPS resources under contract:</p> <ul style="list-style-type: none"> - 50 MW Geysers geothermal (expiring in 2026) - 40 MW Mustang Solar - 30 MW Mustang Solar 3 - 46 MW Golden Hills North Wind - 6 MW local solar feed-in-tariff projects <p>The 2022 Draft RPS Procurement Plan contains additional short-term RPS resources contracted by SCPA from existing facilities executed after the 2020 IRP that will be included in SCPA’s 2022 IRP from existing biomass resources.</p> <p><i>2. Existing RPS resources that the retail seller plans to contract with in the future</i></p> <p>The 2022 Draft RPS Procurement Plan does not explicitly contain any existing RPS resources planned to be contracted with in the future, although existing resources will be likely used to satisfy the TMoP represented in Appendix B to meet SCPA’s internal 50% RPS procurement requirement and the MMoP calibrated in Section IX.A.</p> <p>The 2020 IRP contained existing RPS with the expectation that SCPA would contract for VAMO resources. Following the 2020 IRP, SCPA decided to not participate in VAMO, and those resources are not included in the 2022 Draft RPS Procurement Plan. The Draft 2022 RPS Procurement Plan also does not contain RPS from existing biomass or geothermal,</p>

	<p>given that the requirements of the MTR order have shifted SCPA's focus to baseload resources that are new. The 2022 IRP will likely contain RPS from existing resources that may be sufficient to cover the TMoP, but the details are dependent on additional portfolio optimization.</p> <p><i>3. New RPS resources that the retail seller plans to invest in</i></p> <p>The 2020 IRP contained the first 50 MW of the new 70 MW Proxima solar facility discussed earlier in the 2022 RPS Procurement Plan. However, the following projects were contracted after the 2020 IRP and are introduced in this 2022 Procurement Plan:</p> <ul style="list-style-type: none"> - Additional 20 MW for Proxima solar (70 MW total) - 11.6 MW Tubbs Island solar project - 15.5 MW of geothermal from Nevada and California (two separate contracts) <p>Importantly, the two solar projects with co-located storage are aligned with the 91 MW of solar planned (but not contracted) in the 2020 IRP. All of the projects listed above are expected to be included in SCPA's 2022 IRP portfolios. The 80 MW Sand Hill C wind project was present in the 2020 IRP, but is removed from the Draft 2022 RPS Procurement Plan and will not be present in the 2022 IRP portfolios due to the project's cancellation.</p> <p>The Draft 2022 RPS Procurement Plan does not include the remainder of the solar with co-located storage anticipated in the 2020 IRP nor 5 MW of expected new biomass given there is not sufficient certainty that these resources will be contracted by SCPA.</p> <p><i>4. New and existing resources that will be used to meet Mid-Term Reliability obligations adopted in D.21-06-035</i></p> <p>The 2022 Draft RPS Procurement Plan includes 15.5 MW of new geothermal resources from Nevada and California, the 20 MW expansion</p>
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		<p>of the Proxima project, and the 11.6 MW Tubbs Island solar project that are expected to be used to satisfy MTR obligations and contribute to SCPA's RPS portfolio. These resources will be included in SCPA's 2022 IRP portfolios.</p> <p>SCPA is under exclusivity in negotiating projects to fulfill the remainder of its MTR requirements, including solar projects with co-located storage. These projects are not included in this RPS Procurement Plan, but are quantified in Table 1 and could contribute an incremental 154 GWh in annual long-term RPS generation. SCPA expects these resources will be included in its 2022 IRP portfolios.</p>
IV. Action Plan A. Proposed Activities	<p><i>1. Proposed RPS procurement activities as required by Commission decision or mandated procurement.</i></p> <p><i>2. Procurement plans, potential barriers, and resource viability for each new RPS resource identified.</i></p>	<p><i>1. Proposed RPS procurement activities as required by Commission decision or mandated procurement.</i></p> <p>The development of new RPS resources is accelerated in the Draft 2022 RPS Procurement Plan relative to the Action Plan in the 2020 IRP. This is due to a couple of factors: the MTR has enforced a short-term compliance requirement on SCPA to build new capacity and SCPA's 2021 LRP identified an increased appetite for local RPS resources. As an example, whereas the 2020 IRP did not envision SCPA soliciting new CAISO solar until 2024 or existing geothermal resources until 2025, SCPA completed procurement activities for both of these resources in 2022.</p> <p>SCPA's 2022 IRP filing will contain an updated Action Plan. A key part of the Action Plan will include procurement activities that comply with RPS compliance requirements and the MMoP calibrated in this filing. Additionally, the 2022 IRP filing will specifically identify a plan for satisfying the long-term obligation deficit projected in 2027 in Table 1. Activities could include evaluating new candidate projects submitted in response to recent solicitations or bilateral negotiations or a solicitation focused on fulfilling SCPA's deficit.</p>

		<p>The 2022 IRP will also contain details on the resources selected to finish satisfying SCPA's MTR requirements which are all under exclusivity and currently under negotiation.</p> <p><i>2. Procurement plans, potential barriers, and resource viability for each new RPS resource identified.</i></p> <p>Many of the same risks described in Section VII for SCPA's development resources will create barriers for new RPS resources. SCPA is hopeful that issues such as supply chain constraints and transmission backlogs abate as the global market stabilizes and the MTR procurement order is satisfied. However, additional procurement orders and the expected growth in load alongside rising compliance requirements will likely sustain a high level of demand for new RPS resources that will complicate procurement. Securing FCDS and MIC allocation is a concern for SCPA given the number of projects vying for the same designation.</p> <p>Due to the expected changes and ongoing analysis for its 2022 IRP portfolio, SCPA is not forecasting specific resource types in its Draft 2022 RPS Procurement Plan beyond projects currently under contract. Details on the size and type of SCPA's preferred resources to satisfy RPS obligations and IRP emissions targets will be provided in the 2022 IRP filing.</p> <p>In its preliminary IRP analysis, SCPA has identified baseload renewables, out-of-state resources, and solar paired with storage as likely preferred resources. SCPA is gaining direct experience with these resource types through projects in development with risks thoroughly described in Section VII.</p>
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<p>IV. Action Plan</p> <p>B. Procurement Activities</p>	<p><i>1. The type of solicitation</i></p> <p><i>2. The timeline for each solicitation.</i></p> <p><i>3. Desired online dates.</i></p> <p><i>4. Other relevant procurement planning information, such as solicitation goals and objectives.</i></p>	<p>As described above, the development of RPS resources has been significantly accelerated relative to the Action Plan in the 2020 IRP due to the impact of MTR requirements and SCPA's LRP, which increased the demand for new local resources. SCPA expects additional procurement for both MTR and potentially its LRP through the rest of 2022, which will be reflected in the 2022 IRP.</p> <p>The 2020 IRP included a planned solicitation for additional solar and storage in 2024, incremental geothermal capacity in 2025, and biomass in 2029. Although SCPA expects a different resource mix in its 2022 IRP, it is likely the Action Plan will continue to include solicitation for new RPS resources in this timeframe.</p> <p>From an RPS compliance perspective, SCPA will require a new long-term RPS contract to be commissioned by 2027. A 2027 resource will also be important in meeting SCPA's IRP emissions target. To facilitate a 2027 COD, a solicitation will be likely required by the 2024 date in the 2020 IRP Action Plan.</p> <p>SCPA will manage any remaining short position relative to compliance obligations and its TMoP target through short-term RPS contracts. SCPA has a strong track record of delivering RPS volumes through short-term contracts to meet internal RPS compliance targets. Although SCPA is not electing an allocation, SCPA is hopeful that VAMO will increase the liquidity of RPS in the upcoming years to help offset the impact of increased RPS demand from rising compliance targets.</p>
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<p>IV. Action Plan</p> <p>C. Potential Barriers</p>	<p><i>1. Key market, regulatory, financial, or other resource viability barriers or risks associated with the RPS resources coming online in both retail sellers' Preferred Portfolios.</i></p> <p><i>2. Key risks associated with the potential retirement of existing RPS resources on which the retail seller intends to rely in the future.</i></p>	<p>The key barriers for resources under contract and in development are described in detail in Section VII. As described above, these resources are a good sample of the types of resources SCPA expects to be represented in its 2022 IRP preferred portfolios. Issues such as importing ex-CAISO generation, permitting complexity, securing solar and battery modules, and geothermal exploration risk are shared between SCPA's current development queue and candidate IRP resources. The 2022 IRP Action Plan will expand on this list if candidate resources with discrete resources are selected.</p> <p>SCPA's 2020 IRP included an expectation to contract with existing geothermal resources. Although this resource is not discretely represented beyond 2026 in SCPA's Draft 2022 RPS Procurement Plan and not yet identified as a preferred resource in SCPA's 2022 IRP, due to high operating costs, existing geothermal resources can be more difficult to contract and consequently at higher risk for retirement. This issue is particularly acute given that procurement orders have been focused on new incremental resources. If SCPA does include existing geothermal in its 2022 IRP portfolios, the Action Plan will address this issue.</p>
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Dated: ~~July 1, 2022~~ January 18, 2023

Respectfully submitted,



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Appendix B

Renewable Net Short Calculation

Renewable Net Short Calculations - 2022 RPS Procurement Plans

LSE Name:	Sonoma Clean Power Authority	<div></div>	Input required	<div></div>	No input required	<div></div>	Hard-coded
Date Filed:	1/18/2023						

Variable	Calculation	Item	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2017-2020	2021 Actual	2022 Forecast	2023 Forecast	2024 Forecast	2021-2024	2025 Forecast	2026 Forecast	2027 Forecast	2025-2027	2028 Forecast	2029 Forecast	2030 Forecast	2028-2030	2031 Forecast	2032 Forecast
		Forecast Year					CP 3		1	2	3	CP 4	4	5	6	CP 5	7	8	9	CP 6	10	11
Annual RPS Requirement																						
A		Total Retail Sales (MWh)	2,380,562	2,409,841	2,360,421	2,343,097	9,493,922	2,271,341	2,220,507	2,213,889	2,207,659	8,913,396	2,193,987	2,196,350	2,205,637	6,595,974	2,221,415	2,263,541	2,273,802	6,758,758	2,308,103	2,356,945
B		RPS Procurement Quantity Requirement (%)	27.0%	29.0%	31.0%	33.0%	30.0%	35.8%	38.5%	41.3%	44.0%	39.8%	46.7%	49.3%	52.0%	49.3%	54.7%	57.3%	60.0%	57.4%	60.0%	60.0%
C	A*B	Gross RPS Procurement Quantity Requirement (MWh)	642,752	698,854	731,731	773,222	2,846,558.4	812,004	854,895	913,229	971,370	3,551,498.8	1,023,934	1,083,459	1,146,931	3,254,324.4	1,214,448	1,297,688	1,364,281	3,876,416.8	1,384,862	1,414,167
D		Voluntary Margin of Over-procurement (MWh)	433,752	481,358	466,053	389,609	1,770,773	355,571	308,691	193,715	132,460	990,436	73,060	49,114	55,420	177,594	58,919	62,765	67,603	189,287	72,117	77,432
E	C+D	Net RPS Procurement Need (MWh)	1,076,504	1,180,212	1,197,784	1,162,831	4,617,331	1,167,575	1,163,586	1,106,945	1,103,830	4,541,935	1,096,994	1,132,573	1,202,351	3,431,918	1,273,367	1,360,453	1,431,884	4,065,704	1,456,979	1,491,599
RPS-Eligible Procurement																						
Fa		Risk-Adjusted RECs from Online Generation (MWh)	1,076,504	1,180,212	1,222,784	1,254,331	4,733,831	1,167,575	1,163,586	955,784	903,758	4,190,703	746,016	739,890	297,130	1,783,036	292,648	289,916	286,984	869,548	288,313	287,882
Faa		Forecast Failure Rate for Online Generation (%)					#DIV/0!					#DIV/0!				#DIV/0!				#DIV/0!		
Fb		Risk-Adjusted RECs from RPS Facilities in Development (MWh)					-			82,345	221,565	303,910	288,157	334,297	351,395	973,849	350,708	349,192	348,095	1,047,995	346,998	346,319
Fbb		Forecast Failure Rate for RPS Facilities in Development (%)					#DIV/0!			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Fc		Pre-Approved Generic RECs (MWh)					-					-				-				-		
Fd		Executed REC Sales (MWh)			25,000	91,500	116,500					-				-				-		
F	Fa+Fb+Fc-Fd	Total RPS Eligible Procurement (MWh)	1,076,504	1,180,212	1,197,784	1,162,831	4,617,331	1,167,575	1,163,586	1,038,129	1,125,323	4,494,613	1,034,173	1,074,187	648,525	2,756,885	643,356	639,108	635,079	1,917,543	635,311	634,201
F0		Category 0 RECs					-					-				-				-		
F1		Category 1 RECs	534,437	803,313	781,022	774,467	2,893,239	1,167,575	1,163,586	1,038,129	1,125,323	4,494,613	1,034,173	1,074,187	648,525	2,756,885	643,356	639,108	635,079	1,917,543	635,311	634,201
F2		Category 2 RECs	542,067	376,899	416,762	388,364	1,724,092					-				-				-		
F3		Category 3 RECs					-					-				-				-		
Gross RPS Position (Physical Net Short)																						
Ga	F-E	Annual Gross RPS Position (MWh)	-	-	-	-	-	-	-	(68,816)	21,494	(47,322)	(62,821)	(58,386)	(553,826)	(675,033)	(630,011)	(721,345)	(796,805)	(2,148,161)	(821,668)	(857,398)
Gb	F/A	Annual Gross RPS Position (%)	45.2%	49.0%	50.7%	49.6%	49%	51.4%	52%	47%	51%	50.43%	47.1%	48.9%	29.4%	41.8%	29%	28%	28%	28.4%	28%	27%
Application of Bank																						
Ha	J-Hc (from previous CP)	Existing Banked RECs above the PQR					-	-				-	-			-	-			-	-	
Hb		RECs above the PQR added to Bank					-					-				-				-		
Hc		Non-bankable RECs above the PQR					-					-				-				-		
H	Ha+Hb	Gross Balance of RECs above the PQR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia		Planned Application of RECs above the PQR towards RPS Compliance					-					-				-				-		
Ib		Planned Sales of RECs above the PQR					-					-				-				-		
J	H-Ia-Ib	Net Balance of RECs above the PQR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J0		Category 0 RECs					-					-				-				-		
J1		Category 1 RECs					-					-				-				-		
J2		Category 2 RECs					-					-				-				-		
Expiring Contracts																						
K		RECs from Expiring RPS Contracts (MWh)					-		405,890		150,439	556,329		438,000		438,000				-		
Net RPS Position (Optimized Net Short)																						
La	Ga+Ia-Ib-Hc	Annual Net RPS Position after Bank Optimization (MWh)	-	-	-	-	-	-	-	(68,816)	21,494	(47,322)	(62,821)	(58,386)	(553,826)	(675,033)	(630,011)	(721,345)	(796,805)	(2,148,161)	(821,668)	(857,398)
Lb	(F+Ia-Ib-Hc)/A	Annual Net RPS Position after Bank Optimization (%)	0.452205845	0.489746736	0.507445053	0.496279448	0.486346018	0.514046548	0.524018163	0.468916463	0.509735879	0.50425371	0.471366968	0.489078243	0.294030704	0.417964807	0.289615403	0.282348762	0.279302683	0.283712333	0.275252448	0.269077556

Note: All values are to be input in MWhs

Appendix C

Project Development Status Update

Reporting LSE Name	RPS Contract ID	Project Name	Technology Type
Sonoma Clean Power Authority (SCPA)	SCPA50010	Solar (Proxima)	Solar PV- Ground Mount
Sonoma Clean Power Authority (SCPA)	SCPA50012	Solar (Tubbs Island)	Solar PV- Ground Mount
Sonoma Clean Power Authority (SCPA)	SCPA30003	Geothermal (Fish Lake)	Geothermal
Sonoma Clean Power Authority (SCPA)	SCPA30004	Geothermal (Ormat Portfolio)	Geothermal

Project Name	Project Development Phase	City	County	State	Zip Code	Latitude	Longitude
Solar (Proxima)	Pre-Construction	Crows Landing	Stanislaus	CA	95313	37.401988	-121.161029
Solar (Tubbs Island)	Pre-Construction	Sonoma	Sonoma	CA	95476	38.161125084 638286,	-122.4221845
Geothermal (Fish Lake)	Pre-Construction	Dyer	Esmeralda	NV	89010	37.861623	-118.032382
Geothermal (Ormat Portfolio)	Pre-Construction	Varies	Varies	NV	Varies	Varies	Varies

Project Name	Contract Length (Years)	Contract Execution Date (mm/dd/yyyy)	Contract Start Date (mm/dd/yyyy)	Contract End Date (mm/dd/yyyy)	Contract Capacity
Solar (Proxima)	20	9/24/2018	6/30/2023	6/29/2043	70
Solar (Tubbs Island)	20	6/8/2022	6/1/2024	5/31/2044	11.6
Geothermal (Fish Lake)	20	5/31/2022	6/1/2024	5/31/2044	1.52
Geothermal (Ormat Portfolio)	20	5/31/2022	6/1/2024	12/31/2046	14

Project Name	Expected Annual Generation	Total Contract Volume	Commercial Operation Date (COD)	Transmission Status
Solar (Proxima)	191926	3653923	6/30/2023	Interconnection agreement executed 12/3/2018.
Solar (Tubbs Island)	29050	555888	5/30/2024	Project applied for independent study in March 2022, positive electrical independence test results received in June 2022.
Geothermal (Fish Lake)	12833	256660	6/1/2024	Transmission Service Agreements in place with NV Energy; awaiting MIC for capacity
Geothermal (Ormat Portfolio)	120351	2407010	Varies	Status varies by project; some have executed agreements, others are in queue. Will need MIC for capacity.

Project Name	Storage: Rated Power (MW)	Storage: Capacity (MWh)	Project Notes
Solar (Proxima)	32	128	Contract was amended on 1/21/2022 to add 20 MW of solar (70 MW total) and 27 MW of storage (32 MW total) to original contract.
Solar (Tubbs Island)	11.6	32	
Geothermal (Fish Lake)			Entries reflect SCPA's 11.7% share in a 13 MW facility contracted with other CCAs through California Community Power
Geothermal (Ormat Portfolio)			Entries reflect SCPA's 11.3% share in a 125 MW portfolio contracted with other CCAs through California Community Power. Developer will confirm exact projects within portfolio as exploration and permitting risks are resolved. Earliest potential COD is June 1, 2024 and final COD deadline is December 31, 2026 which are used with the contract's 20-year term to represent the contract start and end date.

Appendix D

Cost Quantification

(PUBLIC VERSION)

Notes to Cost Quantification Template

Table	Row	Notes
1	2-23	Actual costs reflect bundled costs for the renewable resources (i.e. not just renewable premium). Where SCPA has entered into an index plus renewable premium contract, SCPA has assumed the annual average LMP at NP15 for each compliance year plus the contracted renewable premium cost.
1	14	Total 2019 Solar PV cost incorporates the 25,000 MWh of sales reported on Table 3 Row 13
1	18	Though SCPA entered into Various Resource Index Plus contracts for 2019-2021, once the energy and RECs are delivered to SCPA, the associated resources are known and the \$ and MWH are reported according to the resource type delivered.
2	29-51	Projected costs reflect bundled costs for the renewable resources according to the bundled PPA prices. Index Plus contracts include the annual forward LMP cost at NP15 for the given year plus the contracted renewable premium cost. The forward price curve was obtained from ICE on June 11, 2022. The 2027 forward price is used for years 2028+.
3	2 through 23	Actual procurement MWh reflect RECs retired and claimed by SCPA in each compliance year.
3	18	Though SCPA entered into Various Resource Index Plus contracts for 2019-2021, once the energy and RECs are delivered to SCPA, the associated resources are known and the \$ and MWH are reported according to the resource type delivered.

LSE Name: Sonoma Clean Power Authority

Date Filed: 1/18/2023

Input Required

No Input Required

Table 1: Cost Quantification (Actual Net Costs, \$)		Actual RPS-Eligible Procurement and Generation Net Costs (\$)		
1	Executed RPS-Eligible Contracts by Technology Type* (Purchases and Sales)	2019	2020	2021
2	Biogas: Digester Gas			
3	Biogas: Landfill Gas			
4	Biodiesel			
5	Biomass			\$16,353,738
6	Muni Solid Waste			
7	Geothermal	\$30,399,888	\$31,682,158	\$35,754,114
8	Small Hydro (Non-UOG)			
9	Conduit Hydro			
10	Water Supply / Conveyance			
11	Ocean Wave			
12	Ocean Thermal			
13	Tidal Current			
14	Solar PV (Non-UOG)	\$11,323,801	\$15,264,058	\$16,671,306
15	Solar Thermal			
16	Wind	\$26,647,095	\$23,645,061	\$9,710,131
17	Unbundled RECs (REC Only)			
18	Various (Index Plus REC)***			
19	Fuel Cell			
20	UOG: Small Hydro			
21	UOG: Solar PV			
22	UOG: Other			
23	Executed REC Sales (Revenue)		\$4,211,356	
24	Total RPS-Eligible Procurement and Generation Net Cost	\$68,370,784	\$66,379,922	\$78,489,289
25	Total Retail Sales (MWh)	2,360,421	2,343,097	2,271,341
26	Incremental Rate Impact	2.896550325	2.832999038	3.455636508

[illegible]

LSE Name: Sonoma Clean Power Authority

Date Filed: 1/18/2023

Input Required

No Input Required

Table 3: Cost Quantification (Actual Procurement / Generation and Sales, MWh)		Actual RPS-Eligible Procurement / Generation and Sales (MWh)		
1	Technology Type* (Procurement / Generation and Sales)	2019	2020	2021
2	Biogas: Digester Gas			
3	Biogas: Landfill Gas			
4	Biodiesel			
5	Biomass			250,939
6	Muni Solid Waste			
7	Geothermal	424,995	436,228	493,000
8	Small Hydro (Non-UOG)			
9	Conduit Hydro			
10	Water Supply / Conveyance			
11	Ocean Wave			
12	Ocean Thermal			
13	Tidal Current			
14	Solar PV (Non-UOG)	210,906	265,665	258,846
15	Solar Thermal			
16	Wind	586,883	552,438	164,790
17	Unbundled RECs (REC Only)			
18	Various (Index Plus REC)***			
19	Fuel Cell			
20	UOG: Small Hydro			
21	UOG: Solar PV			
22	UOG: Other			
23	Executed REC Sales (MWh)	25,000	91,500	
24	Total RPS Eligible Procurement (MWh)	1,197,784	1,162,831	1,167,575

Table 4: Cost Quantification (Forecast Procurement / Generation and Sales, MWh)		Forecast RPS-Eligible Procurement / Generation and Sales (MWh)										
1	Executed But Not Approved RPS-Eligible Contracts (Purchases and Sales)**	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2	Biogas: Digester Gas											
3	Biogas: Landfill Gas											
4	Biodiesel											
5	Biomass											
6	Muni Solid Waste											
7	Geothermal											
8	Small Hydro (Non-UOG)											
9	Conduit Hydro											
10	Water Supply / Conveyance											
11	Ocean Wave											
12	Ocean Thermal											
13	Tidal Current											
14	Solar PV (Non-UOG)											
15	Solar Thermal											
16	Wind											
17	Unbundled RECs (REC Only)											
18	Various (Index Plus REC)***											
20	Fuel Cell											
21	UOG: Small Hydro											
22	UOG: Solar PV											
23	UOG: Other											
24	Executed REC Sales (MWh)											
25	Total Executed But Not Approved RPS-Eligible Procurement	0	0	0	0	0	0	0	0	0	0	0
26	Executed and Approved RPS-Eligible Contracts (Purchases and Sales) ****	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
27	Biogas: Digester Gas											
28	Biogas: Landfill Gas											
29	Biodiesel											
30	Biomass	380,890	201,005	150,439								
31	Muni Solid Waste											
32	Geothermal	438,000	438,000	450,942	505,734	552,980	133,183	133,599	133,183	133,183	133,183	133,599
33	Small Hydro (Non-UOG)											
34	Conduit Hydro											
35	Water Supply / Conveyance											
36	Ocean Wave											
37	Ocean Thermal											
38	Tidal Current											
39	Solar PV (Non-UOG)	170,177	251,655	377,885	385,914	382,060	377,875	375,614	371,782	367,753	367,985	366,459
40	Solar Thermal											
41	Wind	149,519	147,469	146,057	142,525	139,147	137,467	134,143	134,143	134,143	134,143	134,143
42	Unbundled RECs (REC Only)											
43	Various (Index Plus REC)***	25,000										
45	Fuel Cell											
46	UOG: Small Hydro											
47	UOG: Solar PV											
48	UOG: Other											
49	Executed REC Sales (MWh)											
50	Total Executed and Approved RPS-Eligible Procurement	1,163,586	1,038,129	1,125,323	1,034,173	1,074,187	648,525	643,356	639,108	635,079	635,311	634,201
51	Total RPS Eligible Procurement (MWh)	1,163,586	1,038,129	1,125,323	1,034,173	1,074,187	648,525	643,356	639,108	635,079	635,311	634,201

Appendix E

Solicitation Information



2022 Mid-Term Reliability Procurement
Joint CCA Request for Proposals
For Incremental Net Qualifying Capacity

Issuance Date: January 5th, 2022

Response Deadline: January 31st, 2022

5:00 PM PPT

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1. General Information

1.1. Introduction & Purpose

Three community choice aggregators (CCAs) Sonoma Clean Power Authority (SCPA), Central Coast Community Energy (CCCE) and Silicon Valley Clean Energy (combined "SCPA/CCCE/SVCE" or "Joint CCAs" through this 2022 Joint Request for Proposals for Clean Energy and Capacity ("Joint RFP") intend to make progress towards meeting their respective goals related to meeting obligations under the Mid-term Reliability Procurement Order (D.21-06-035) in addition to each respective CCA's Renewable Portfolio Standard (RPS), greenhouse gas emission reductions and reliability requirements by contracting for newly developed projects. The Joint CCAs are CCAs formed under the authority of a joint powers' agency and subject to legislative and regulatory requirements imposed on a load serving entity within the state of California.

1.2. CCA Background Information

In May 2014, SCPA began providing their member communities in Sonoma County with clean power. In 2016, they added Mendocino County to their service territory, and they now service 11 cities and unincorporated communities in Sonoma and Mendocino counties. SCPA's estimated 2021 retail sales are 2,260 GWh with a peak capacity of 495 MW, of which 47% are residential and 53% non-residential. SCPA has a S&P Global credit rating of A.

[SCPA IRP](#) and [Audited Financials](#)

In spring 2018, CCCE began providing their member communities throughout Monterey, San Benito, and Santa Cruz Counties with clean-sourced power. CCCE now serves 28 cities and unincorporated communities in Monterey, Santa Barbara, San Luis Obispo, San Benito, and Santa Cruz Counties. CCCE's estimated 2021 retail sales are 5,200 GWh with a peak capacity of 900 MW distributed 65% non-residential and 35% residential. CCCE has a S&P Global credit rating of A.

[CCCE IRP](#) and [Audited Financials](#)

In April 2017, SVCE began providing their member communities in Santa Clara County with renewable and carbon-free electricity. SVCE serves 12 cities and unincorporated communities in Santa Clara County. SVCE's estimated 2021 retail sales are 4,000 GWh with a peak capacity of 850 MW distributed 68% non-residential and 32% residential. SVCE has a S&P Global credit rating of A and a Moody's credit rating of Baa2.

[SVCE IRP](#) and [Audited Financials](#)

1.3. Joint RFP Documents

This Joint RFP consists of this protocol and four appendices. Among other things, the protocol (i) offers general information pertaining to this RFP, (ii) describes the purpose and drivers of this Joint RFP and provides high-level considerations for respondents, (iii) includes a schedule for this Joint RFP, (iv) sets forth terms governing the preparation and submission of proposals and RFP-related communications with the Joint CCAs, and (v) provides a high-

level overview of the process for evaluating and selecting proposals submitted in response to this Joint RFP. The Appendices are as follows:

- **Appendix A** to this Joint RFP is the Offer Form
- **Appendix B** is the Executive Summary Template
- **Appendix C** contains Expected contract terms,
- **Appendix D** is an express reservation of the Joint CCA's rights in connection with this RFP; warranty, liability, and contract acceptance disclaimers; terms addressing the disclosure of Joint RFP- related information by the Joint CCA's and respondents in this Joint RFP, respondent's responsibility for Joint RFP-related costs, and Board approvals; and respondent's deemed acceptance of the rights and terms contained in Appendix D and the Joint CCA's reliance upon such acceptance.

Respondents are responsible for familiarizing themselves with and being fully aware of the terms of this Joint RFP, including the terms of each Appendix.

1.4. Joint RFP Website

This Joint RFP and related material and information are posted on SCPA's website and available for review. The website will be updated from time-to-time with additional information related to this Joint RFP. Interested persons are responsible for monitoring the website to ensure the timely receipt of information about this Joint RFP.

[Link to SCPA RFP page](#)

1.5. Joint RFP Administrator

The Joint RFP Administrator for this Joint RFP is SCPA. The contact information for the Joint RFP Administrator is: Hannah Rennie, SCPA Energy Market Analyst.

The Joint RFP Administrator's responsibilities include (i) acting as a liaison between the participants in this Joint RFP and the Joint CCA's on all Joint RFP-related matters, (ii) ensuring that respondent questions to the Joint CCA's are addressed in an appropriate manner, (iii) receiving, recording, and maintaining respondent proposals, (iv) and managing other administrative matters relating to this Joint RFP.

As detailed in Section 6.1 below, all questions, requests, and other inquiries or communications from or on behalf of respondents to the Joint CCA's about this Joint RFP must be directed in email to the Joint RFP Administrator.

Email: procurement@sonomacleanpower.org

2. Joint RFP Overview

2.1. Joint RFP Purpose

The Joint CCAs are seeking to procure resources to satisfy the requirements of the California Public Utility Commission ("CPUC") order D.21-06-035¹. The decision requires the three LSEs to procure a combined total of more than 600 MW additional Net Qualifying Capacity ("NQC") to come online before June 1, 2026. Proposals offered into this Joint RFP will be evaluated for their ability to meet the Joint CCAs portfolio targets in accordance with the terms of this Joint RFP as based on a best fit and value and at low cost considering, without limitation, reliability, risk mitigation, and other relevant factors including the ability to provide enhanced grid reliability by providing Resource Adequacy attributes as defined by the California Public Utilities Commission and the California Independent System Operator².

2.2. Eligible Resources, Products Sought and Preferred Terms

Eligible Resources	<p>The project must meet eligibility criteria for eligible resources as defined by the CPUC in D.21-06-035. The Joint CCAs are seeking resources which meet the following resource categories:</p> <p>Non-Fossil Fuel Resources: Resources in this category include, but are not limited to, solar, wind, RA only products, renewable plus storage hybrids, stand-alone storage, and demand response resources. Non-Fossil Fuel resources with an online date on or before June 1, 2024 and on or before August 1, 2023 may be preferred to meet LSEs annual compliance dates. Per the decision, resources cannot be counted if they have an online date after June 1, 2025.</p> <p>Zero-Emitting Resources: Resources in this category must:</p> <ul style="list-style-type: none">(a) Be from a generation resource, a generation resource paired with storage (physically or contractually), or a demand response resource(b) Be available every day from 5 p.m. to 10 p.m. (the beginning of hour ending 1800 through the end of hour ending 2200), Pacific Time, at a minimum; and(c) Be able to deliver at least 5 megawatt-hours of energy during each of these daily periods for every megawatt of incremental capacity claimed. Zero-Emitting resources with an online date on or before June 1, 2024 and on or before August 1, 2023 may be preferred to meet LSEs annual compliance dates. Per the decision, the latest resources can be online is June 1, 2025.
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¹ The final decision and related documentation for the Mid-Term Reliability order can be found on the IRP Procurement Track page of the CPUC's website:

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K603/389603637.PDF>

² Definitions and documentation regarding Resource Adequacy may be found at <http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx> and <http://www.cpuc.ca.gov/ra/>.

	<p>Firm Generation Resources: Resources in this category must not be weather dependent or use limited, must have at least an 80 percent capacity factor, and produce no on-site emissions unless they are otherwise eligible to count under the RPS requirements. Resources must be a generating resource and not storage. Firm Generation Resources should be online no later than June 1, 2026.</p> <p>Long-Duration Storage: Resources in this category must be storage resources able to discharge at maximum capacity over at least an eight-hour period from a single resource. Long-Duration Storage Resources should be online no later than June 1, 2026.</p> <p>All resources must be incremental to the CPUC's D.21-06-035 baseline list of resources.³</p>
Project Location	Regardless of the project's location, it must comply with the eligibility and counting rules of the California resource adequacy program in place at the time of contract execution, and for applicable generation resources must be eligible to be counted as PCC1 RPS per CPUC decision D.11-12-052.
Project Attributes	Any purchase of capacity and energy made pursuant to this Joint RFP will also include all associated Capacity, Energy, Environmental Attributes/Renewable Energy Credits (RECs), and Ancillary Services associated.
Delivery Term	Minimum term of ten years.
Scheduling and Dispatch Flexibility	The Joint CCAs prefer to provide Schedule Coordinator (SC) services. If the respondent prefers to be the SC, then the Joint CCAs require the ability to make schedule changes at any time, applicable to CAISO market scheduling rules.
Price & Settlement	<p>Respondents must price their proposed project in the following forms:</p> <ul style="list-style-type: none"> • All-in energy <u>and</u> capacity price [\$/MWh] <ul style="list-style-type: none"> ○ May only be provided <u>without an escalator</u> ○ This price includes Delivered Energy, Environmental Attributes, Capacity Rights, and Ancillary Services <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Energy pricing [\$/MWh] <ul style="list-style-type: none"> ○ May only be provided <u>without an escalator</u> ○ For generation resources • Capacity pricing [\$/kW-month] <ul style="list-style-type: none"> ○ Applies only for energy storage component, if applicable

³ See the "Baseline list of resources as required by D.21-06-035" posted 8/24/2021 can be found here: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/d2106035_baseline_gen_list.xlsx

	<ul style="list-style-type: none"> ○ Respondent(s) are required to provide pricing for 4-, 5- or 8-hour duration battery, as applicable for resource category ○ Offered Price will be assumed to be for non-degrading energy storage capacity over the delivery term ○ Indicate if DC- or AC-coupling ○ Indicate if hybrid or co-located <p>Respondents are required to include the price at the Project P-node (i.e., the CAISO pricing node assigned to the generator).</p> <p>It is strongly encouraged for Respondents to provide pricing at least one of the following Trading Hubs:</p> <ul style="list-style-type: none"> • SP15 • NP15 <p>And the applicable DLAP;</p> <ul style="list-style-type: none"> • SCE DLAP • PG&E DLAP <p>Note this Joint RFP is not seeking outright ownership of capacity or energy resources. Only the above-mentioned pricing schemes will be considered.</p>
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The foregoing is not intended, and should not be construed, as an exhaustive listing of important commercial terms for a Power Purchase Agreement ("PPA") resulting from this Joint RFP. Please refer to Appendix C and the sections below for other relevant commercial provisions or considerations.

3. Joint RFP Schedule

The Joint RFP Schedule below sets out important dates for respondents interested in participating in this Joint RFP. Notice of any change to the Joint RFP Schedule will be posted on SCPA's Website.

Activity	Scheduled Date
Issuance of Joint RFP	January 5th, 2022
Deadline to submit proposals	January 31st at 5:00 PM PDT
Notification of final shortlisted respondents (Tentative)	Early March, 2022
Execute Exclusivity Agreement	March, 2022
PPA negotiations	Beginning March, 2022
Target contract completion	Early summer, 2022

4. Joint RFP Questions

Respondents and other interested persons are encouraged to submit questions about this Joint RFP, to the Joint RFP Administrator (using the contact information provided above in 1.5). All questions regarding this Joint RFP must be submitted by email. Interested persons are requested to submit questions as promptly as possible to ensure the timely receipt of the Joint CCAs response.

Subject to the Joint CCA's consideration of the confidentiality concerns, the Joint CCAs intend to post all questions submitted by respondents, as well as the Joint CCA's responses to those questions, on SCPA's website. Questions will be posted anonymously, to shield the identity of respondents who posed the questions. The Joint CCA's objective in posting questions and answers is to afford respondents equal access to information potentially relevant to their proposals. Respondents are urged to submit Joint RFP questions to the CCAs as early as possible, in consideration of the proposal submission deadlines. The Joint CCAs expect to provide answers only to questions posed on or before the January 30th, 2022 and that are specific to an actual proposal submission issue. The Joint CCAs may fail to post or answer any questions in their sole discretion.

5. Proposal Submission

The Proposal submission process requires each respondent to submit to SCPA, using the contact information in section 1.5, responses to Appendix A and B (collectively referred to as the "Proposal Package"), to have its proposal(s) evaluated under this Joint RFP. Under the current schedule, respondents must submit a completed Proposal Package by 5:00 p.m. PPT on January 31st, 2022.

Respondent will each bear the risk of any failure of respondent to submit the completed Proposal Package by the required deadline as required by this Joint RFP. Proposals for which respondent does not submit all agreements, information, and material as required by this Joint RFP may be considered non-responsive and may be eliminated from consideration. Responsive proposals are those which are deemed conforming to all requirements listed in this Joint RFP document. The Joint CCAs may waive any irregularities or defects in their sole discretion.

All proposals must be submitted in email form with the appropriate attached documents to the following email address:

procurement@sonomacleanpower.org

6. Proposal Package Review and Evaluation

6.1. Proposal Package Requirements

The following is a list of requirements for Proposal Packages to be considered compliant and eligible in this Joint RFP process:

- Proposal Package must be received by 5 p.m. PPT on January 31st, 2022.
- All portions of Proposal Package must be received in the appropriate digital formats – pdf for narrative documents and Excel spreadsheets for the associated data templates.
- All associated data templates must be completed satisfactorily and provided with the Proposal Package. It is the duty of the proposer to contact the Joint CCAs for clarification regarding completion of data templates and Executive Summary. Incomplete templates are grounds for non-consideration of a Proposal Package.
- After receipt of Proposal Package, The Joint CCAs may contact respondents to request clarification about unclear portions of proposals. Respondents will have a maximum of 5 days to respond back to the Joint CCAs or the Proposal Package will be removed from consideration.

6.2. Review, Evaluation and Shortlisting Process

Proposal Package will be modeled to yield a final, in-depth understanding of expected performance. The resources that effectively meet the standards of the Joint CCAs will be shortlisted and contacted for negotiation of contracts. Proposal Packages will be reviewed and evaluated based on the following standards:

- **Value**
 - The value of the proposed resource(s) is a primary concern for ranking proposals. Proposal Packages will be evaluated based on the competitiveness of their total value relative to other projects of a similar type including pricing, pricing structure, and contract term.
- **Project Viability**
 - Proposal Packages will be evaluated based on a qualitative assessment of the risks inherent in the proposed project. Proposed commercial operation date (“COD”) and construction timeline will be evaluated for viability.
- **Portfolio Fit**
 - Resources that align with the Joint CCA’s Board of Director authorized portfolio characteristics.
- **Respondent Experience**
 - Respondents will be evaluated for experience as a firm and/or based on the experience of the members of the project team. Experience with the CAISO interconnection process and permitting will be critical.
- **Resource Adequacy**
 - The CCAs must meet CPUC Resource Adequacy (RA) requirements (system, local, and flexible). Projects that meet these requirements may be valued more highly.
- **Project full delivery date**
 - To meet the MTR procurement mandate, resources with an online date on or before August 1, 2023 and on or before June 1, 2024 may be preferred to meet LSEs annual compliance dates.

6.3. Notification of Results and Commercial Negotiations

After the completion of the review and evaluation of the Proposal Packages, the Joint RFP Administrator will communicate to each respondent the status of its proposal(s). As noted, the Joint CCAs expect to negotiate the final terms of a PPA with respondent(s) on the

Shortlist. Each member of the Joint CCA intends to individually execute a contract with developer(s) with terms of the contract mirrored for each Joint CCA.

Placement of a proposal on the shortlist, does not constitute or indicate acceptance by the Joint CCAs of any proposal, any term thereof, or any related contract term. Without limiting Appendix C, the Joint CCAs (i) have no obligation and make no commitment of any kind to enter into a transaction with any respondent, including a respondent with a proposal on the shortlist, or to be bound by any term proposed by respondent, and (ii) have no obligation or liability with respect to a transaction or arising out of this Joint RFP except as may be expressly set forth in a fully executed PPA.

Upon respondent(s) being shortlisted, seller will be required to execute an agreement of exclusivity ("Exclusivity Agreement") for the project(s), provide a cash deposit or letter of credit in the amount of \$3/kW. The Shortlist deposit amount is determined by the generating capacity plus the storage capacity. The Joint CCAs will return cash deposit or letter of credit of respondent (i) following execution of the PPA and provision of the required security in accordance with the terms of such PPA, (ii) the Joint CCA's rejection of respondent's offer following shortlist selection, (iii) failure of both the Joint CCA's and respondent to agree on the terms of a PPA, (iv) the Joint CCA's termination of the RFO process, or (v) termination of exclusivity following occurrence of the exclusivity deadline as provided for in the Exclusivity Agreement. The Joint CCAs have the right to retain the cash deposit or letter of credit if the respondent(s) is negligent or provides falsified information during the PPA negotiation process.

7. Miscellaneous Joint RFP Matters

Without limiting the generality of Appendix D, Joint CCAs reserve the right to withdraw, suspend, cancel, or terminate this Joint RFP, or to modify any term of this Joint RFP, including, without limitation, any term concerning the Joint RFP schedule (including any date), at any time in its sole discretion. The Joint CCAs will endeavor to notify all participants of any such withdrawal, suspension, cancellation, termination, or modification made prior to the submittal deadline and to post notice of any such action on the each CCA's Website.

Appendix A Offer Form

The Joint CCAs have posted the Joint RFP Offer Form on each SCPA's Website. If the respondent(s) has any issues accessing the document or questions, please contact the Joint RFP Administrator.

[Offer Form](#)

Appendix B Executive Summary

As part of the Joint RFP, the Joint CCAs have posted this Appendix B, which contains a list of due diligence requests, composed as an Executive Summary. The completion of Appendix B is required.

Executive Summary Template

Appendix C Expected Terms

Test Energy Rate	Prior to COD, Joint CCAs will purchase all Test Energy and any associated Product at fifty percent (50%) of the Contract Price for up to ninety (90) days.
Guaranteed Energy Production:	<p>Seller shall deliver to Joint CCAs no less than the Guaranteed Energy Production in each Performance Measurement Period. The "Guaranteed Energy Production" means an amount of Energy, as measured in MWh, equal to the total Expected Energy for the applicable Performance Measurement Period multiplied by the applicable percentage, based on technology type:</p> <ul style="list-style-type: none">• Wind: 75%• Solar: 85%• Geothermal: 90%• Small Hydro: 85% <p>The "Performance Measurement Period" shall be each two (2) consecutive Contract Year period during the Delivery Term, except for geothermal, which shall be each Contract Year, all calculated on a rolling basis.</p> <p>For purposes of determining whether Seller has achieved the Guaranteed Energy Production, Seller shall be deemed to have delivered to Joint CCAs (i) any Deemed Delivered Energy and (ii) Energy in the amount it could reasonably have delivered to Joint CCAs but was prevented from delivering to Joint CCAs by reason of Force Majeure Events, System Emergency, and Curtailment Periods (the "Adjusted Energy Production").</p> <p>If Seller fails to achieve the Guaranteed Energy Production amount in any Performance Measurement Period, Seller shall pay Joint CCAs liquidated damages equal to (a) the difference of the Guaranteed Energy Production less the Adjusted Energy Production, multiplied by (b) the replacement price for the energy and RECs less the Contract Price. No payment shall be due if the calculation yields a negative number.</p>

Performance Guarantee:	<p>The occurrence of any of the following shall constitute an Event of Default:</p> <ol style="list-style-type: none"> 1. if, beginning in the second Contract Year, the Adjusted Energy Production amount is not at least fifty percent (50%) of the Expected Energy amount in any Contract Year; and 2. if, in any two (2) consecutive Contract Years during the Delivery Term, the Adjusted Energy Production amount is not at least sixty-five percent (65%) of the Expected Energy amount in each Contract Year.
ITC Passthrough	Should additional Investment Tax Credits ("ITC") become available, and the offered energy storage project is eligible to receive it, Joint CCAs expect to receive the benefit of such tax credits.
Excess Energy:	If during any settlement interval, the Delivered Energy is greater than Joint CCAs' Output Share of the Guaranteed Capacity (" Excess Energy "), then the price paid by Joint CCAs for the Excess Energy shall be zero dollars (\$0). If the real-time locational marginal price (as defined by the CAISO) at the Delivery Point is negative for a settlement interval with Excess Energy, Seller shall pay Joint CCAs an amount equal to the product of (i) the absolute value of the Delivery Point LMP, and (ii) Excess Energy.
Annual Excess Energy:	<p>If, at any point in any Contract Year, the amount of Adjusted Facility Energy plus the amount of Deemed Delivered Energy above the Curtailment Cap exceeds one hundred and five percent (105%) of the Expected Energy for such Contract Year, the price to be paid for additional Adjusted Facility Energy or Deemed Delivered Energy shall be equal to the lesser of (a) the Delivery Point LMP for the Real Time Market for the applicable Settlement Interval or (b) fifty percent (50%) of the Contract Price, but not less than \$0.00/MWh.</p> <p>If, at any point in any Contract Year, the amount of Adjusted Facility Energy plus the amount of Deemed Delivered Energy above the Curtailment Cap exceeds one hundred and fifteen percent (115%) of the Expected Energy for such Contract Year, the price to be paid for additional Adjusted Facility Energy or Deemed Delivered Energy shall be equal to \$0.00/MWh.</p>
Curtailment:	In the event the Facility is curtailed due to a System Emergency (to be defined in the PPA), Force Majeure, by the CAISO or the transmission owner, or for any reason other than Joint CCAs' sole action or inaction, Seller shall not be liable for failure to deliver such curtailed energy and Joint CCAs shall not be obligated to pay for such curtailed energy. Joint CCAs shall have the right to order Seller to curtail deliveries of Facility Energy, provided that Joint CCAs shall pay Seller for all Deemed Delivered Energy associated with such Buyer-directed curtailments more than the Curtailment Cap at the Contract Price, subject to the Annual Excess Energy provisions.

	<p>"Curtailment Cap" is the yearly quantity per Contract Year, in MWh, equal to fifty (50) hours multiplied by the Guaranteed Capacity.</p> <p>"Deemed Delivered Energy" means the amount of Energy expressed in MWh that the Facility would have produced and delivered to the Delivery Point, but that is not produced by the Facility due to a Joint CCA-directed curtailment, which amount shall be calculated using an industry-standard methodology agreed to by Joint CCAs and Seller that utilizes meteorological conditions on Site as input for the period of time during such Buyer-directed curtailments.</p>
Resource Adequacy Failure:	<p>For each RA Shortfall Month occurring after the RA Guarantee Date, Seller shall pay to Joint CCAs an amount (the "RA Deficiency Amount") equal to the product of the difference, expressed in kW, of (i) the Qualifying Capacity of the Facility for such month, minus (ii) the Net Qualifying Capacity of the Facility for such month, including any adjustments for unforced capacity (UCAP) or similar adjustments, however described, minus (ii) the Net Qualifying Capacity of the Facility for such month, multiplied by the CPM Soft Offer Cap as listed in Section 43A.4.1.1 of the CAISO Tariff (or its successor); provided that Seller may, as an alternative to paying RA Deficiency Amounts, provide Replacement RA in the amount of (X) the Qualifying Capacity of the Facility with respect to such month, minus (Y) the Net Qualifying Capacity of the Facility with respect to such month, provided that any Replacement RA capacity is communicated by Seller to Joint CCAs with Replacement RA product information in a written notice to Joint CCAs at least seventy-five (75) days before the applicable CPUC operating month for the purpose of monthly RA reporting.</p>
Station Use:	<p>Joint CCAs will not be responsible for Station Use and Station Use will not be provided by the Facility.</p>
Guaranteed Construction Start Date:	<p>The "Guaranteed Construction Start Date" means the Expected Construction Start Date, subject to extensions on a day-for-day basis due to Force Majeure or delays caused by transmission provider (e.g., the CAISO) or transmission owner (e.g., PG&E) that are outside of the reasonable control of Seller. Such day-for-day extensions, including for Force Majeure, shall be no longer than one-hundred twenty (120) days on a cumulative basis; provided that only with respect to a Force Majeure Event related to COVID-19 (as defined below), the day-for-day extensions shall not exceed two-hundred forty (240) days. For clarity, these permitted extensions (the "Development Cure Period") extend both the Guaranteed Construction Start Date and the Guaranteed COD simultaneously.</p> <p>Notwithstanding anything to the contrary, no extension shall be given if (i) the delay was the result of Seller's failure to take all commercially reasonable actions to meet its requirements and deadlines, (ii) Seller failed to provide requested documentation as provided below, or (iii) Seller</p>

	<p>failed to provide written notice to Buyer as required in the next sentence. Seller shall provide prompt written notice to Buyer of a delay, but in no case more than thirty (30) days after Seller became aware of such delay, except that in the case of a delay occurring within sixty (60) days of the Expected Commercial Operation Date, or after such date, Seller must provide written notice within five (5) Business Days of Seller becoming aware of such delay. Upon request from Joint CCAs, Seller shall provide documentation demonstrating to Joint CCA's reasonable satisfaction that the delays described above did not result from Seller's actions or failure to take commercially reasonable actions.</p> <p>In the event that Seller fails to achieve the Guaranteed Construction Start Date, Seller shall pay delay damages to Joint CCAs, (the "Construction Delay Damages") for each day of delay, in the amount of the Development Security divided by 120. The Construction Delay Damages shall be refundable to Seller if, and only if, Seller achieves COD on or before the Guaranteed COD.</p> <p>Failure to achieve Guaranteed Construction Start within 180 days of the Guaranteed Construction Start Date shall constitute an Event of Default, and Joint CCAs shall have the right, in their sole discretion, to terminate the PPA and retain a damage payment in the amount of the Development Security.</p>
Guaranteed Commercial Operation Date:	<p>The "Guaranteed Commercial Operation Date" or "Guaranteed COD" means the Expected Commercial Operation Date, subject to extensions on a day-for-day basis under the Development Cure Period.</p> <p>If Seller does not achieve COD of the Facility by the Guaranteed COD, Seller shall pay COD Delay Damages to the Joint CCAs for each day of delay until Seller achieves COD. "COD Delay Damages" are equal to the Development Security divided by 60. COD Delay Damages shall be paid for each day of delay and shall be paid to Joint CCAs in advance on a monthly basis. A prorated amount will be returned to Seller if COD is achieved during the month for which COD Delay Damages were paid in advance.</p> <p>Failure to achieve COD within 60 days of the Guaranteed COD shall constitute an Event of Default, and Joint CCAs shall have the right, in its sole discretion, to terminate the PPA and retain the Development Security.</p>
Credit Requirements:	<p>Seller shall post security as follows:</p> <p>Development Security – \$90,000 per MW of Guaranteed Capacity</p> <p>Performance Security – \$105,000 per MW of Guaranteed Capacity</p> <p>To secure its obligations under this PPA, Seller shall deliver the Development Security to Joint CCAs within thirty (30) days of the Effective Date. Development Security shall be in the form of cash or a Letter of Credit.</p>

	<p>To secure its obligations under this PPA, Seller shall deliver Performance Security to Joint CCAs on or before the Commercial Operation Date.</p> <p>Within five (5) Business Days following any draw by Joint CCAs on the Development Security or the Performance Security, Seller shall replenish the amount drawn such that the security is restored to the applicable amount.</p>
Prevailing Wage:	Minimum required
Exclusivity:	Upon shortlisting, Seller shall execute an Exclusivity Agreement with Joint CCAs.
No Recourse to Members of Joint CCAs:	Joint CCAs are organized as Joint Powers Authorities in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.) pursuant to their Joint Powers Agreement and are public entities separate from their constituent members. Joint CCAs shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this Agreement. Seller shall have no rights and shall not make any claims, take any actions, or assert any remedies against any of Joint CCAs' constituent members in connection with this Agreement.
Force Majeure:	<p><u>"Force Majeure Event"</u> means any act or event that delays or prevents a Party from timely performing all or a portion of its obligations under this Agreement or from complying with all or a portion of the conditions under this Agreement if such act or event, despite the exercise of reasonable efforts, cannot be avoided by and is beyond the reasonable control (whether direct or indirect) of and without the fault or negligence of the Party relying thereon as justification for such delay, nonperformance, or noncompliance.</p> <p>Notwithstanding the foregoing, the term <u>"Force Majeure Event"</u> does not include (i) economic conditions that render a Party's performance of this Agreement at the Contract Price unprofitable or otherwise uneconomic (including Joint CCAs' ability to buy the Product at a lower price, or Seller's ability to sell Product at a higher price, than the Contract Price); (ii) Seller's inability to obtain permits or approvals of any type for the construction, operation, or maintenance of the Facility; (iii) the inability of a Party to make payments when due under this Agreement, unless the cause of such inability is an event that would otherwise constitute a Force Majeure Event as described above that disables physical or electronic facilities necessary to transfer funds to the payee Party; (iv) a Curtailment Period, except to the extent such Curtailment Period is caused by a Force Majeure Event; (v) Seller's inability to obtain sufficient labor, equipment, materials, or other resources to build or operate the Facility except to the extent such inability is caused by a Force Majeure Event; (vi) a strike, work stoppage or labor dispute limited only to any one or more of Seller, Seller's Affiliates, Seller's contractors, their subcontractors thereof or any other third party employed by Seller to work on the Facility;</p>

	<p>(vii) any equipment failure except if such equipment failure is caused by a Force Majeure Event; or (viii) events otherwise constituting a Force Majeure Event that prevent Seller from achieving Construction Start or Commercial Operation of the Facility, except to the extent expressly permitted as an extension under the PPA.</p> <p>For the avoidance of doubt, so long as the event, despite the exercise of reasonable efforts, cannot be avoided by and is beyond the reasonable control (whether direct or indirect) of and without the fault or negligence of the Party relying thereon as justification for such delay, nonperformance, or noncompliance, Force Majeure Event may include an epidemic or pandemic but expressly excludes any epidemic or pandemic caused by the epidemic disease designated COVID-19 and the related virus designated SARS-CoV-2 and any mutations thereof ("COVID-19").</p>
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Appendix D Reservation of Rights, Waivers, and Acceptances

1. Reservation of Rights

Notwithstanding anything to the contrary, the Joint CCAs may, and expressly reserve the right to, at any time and from time to time, without prior notice and without assigning or providing any reason therefor:

- cancel, suspend, withdraw, or terminate this Joint RFP (including, without limitation, after the selection under this Joint RFP of one or more respondents for a PPA) or cancel or suspend its participation in this Joint RFP;
- modify this Joint RFP, including, without limitation, any Appendix to this Joint RFP, or any of the dates, times or places set forth in the Joint RFP or related to the Joint RFP process;
- accept, refuse to accept, consider, not consider, favor, disfavor, recommend, not recommend, pursue or reject any proposal, in its sole and absolute discretion, for any reason;
- without limitation of the generality of any of the other terms herein, reject or eliminate any proposal submitted in response to this Joint RFP that is incomplete, is nonconforming, or contains irregularities (or waive any irregularity in any proposal), or that it determines was made with the intent to create artificial prices, terms, or conditions or would have that effect;
- carry out negotiations with any, some or all respondents or other persons related to this Joint RFP, and suspend or terminate negotiations with any respondent or other person at any time, including, without limitation, because of any change in resource needs of the Joint CCAs giving rise to this Joint RFP;
- discuss the terms of any proposal or any other material submitted by respondent with, and obtain clarification or additional information concerning such proposal or such other material from, respondent or its directors, officers, employees, agents, representatives, and advisors;
- request from respondent information not detailed in or required by this Joint RFP but that may be necessary or relevant to the evaluation of respondent's proposal(s) and utilize such information as the Joint CCAs deems appropriate in connection with such evaluation of this Joint RFP;

- receive, consider, pursue, or transact on (i) opportunities to acquire other assets or resources offered or that become available outside of the Joint RFP process as such opportunities arise or (ii) proposals offered in response to this Joint RFP that are nonconforming or eliminated from consideration in this Joint RFP;
- invite further proposals in or outside of this Joint RFP or supplemental submissions of proposals;
- determine which respondents or entities to allow, or continue to allow, to participate in the Joint RFP process;
- pursue or transact on proposals offered in response to this Joint RFP regardless of any rank order established in the Joint RFP evaluation process to promote diversity of supply in this Joint RFP, gain experience with different technologies, limit exposure to a counterparty, technology or resource or a particular set of risks, or achieve other commercial goals the Joint CCAs deem appropriate;
- sign or not sign PPA(s) with respondents or other persons relating to the Transactions solicited by this Joint RFP;
- subject to the terms of any applicable confidentiality agreement entered between the Joint CCAs and respondent, retain, archive, or destroy any information or material provided to or for the benefit of the Joint CCAs in the proposal submission process; and
- take any and all other actions it deems necessary or appropriate, in its sole and absolute discretion, in connection with this Joint RFP and the Joint RFP process.

Each of the foregoing rights (including any right listed in a series of rights) may be exercised individually by SCPA, CCCE & SVCE or any director, officer, employee, or authorized agent or representative of SCPA, CCCE & SVCE or their respective parent. The reservation of rights contained herein is in addition to all other rights reserved or granted to the Joint CCAs or any of its Affiliates elsewhere in this Joint RFP or otherwise held by or available to the Joint CCAs or any of its Affiliates.

2. No Warranties or Liabilities

BY PARTICIPATING IN THE JOINT RFP PROCESS, EACH RESPONDENT AGREES THAT, EXCEPT TO THE EXTENT CONTAINED IN A PPA WITH RESPONDENT:

- (A) ALL MATERIAL AND OTHER INFORMATION FURNISHED BY OR ON BEHALF OF THE JOINT CCAs OR ANY OTHER AFFILIATE OF SCPA, CCCE & SVCE IN CONNECTION WITH THIS JOINT RFP IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND
- (B) THE JOINT CCAs, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, PARTNERS, EMPLOYEES, AGENTS, REPRESENTATIVES AND ADVISORS SHALL HAVE NO LIABILITY TO ANY RESPONDENT, ANY OF ITS AFFILIATES, OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, PARTNERS, EMPLOYEES, AGENTS, REPRESENTATIVES, ADVISORS, LENDERS, OR INVESTORS RELATING TO OR ARISING FROM THE USE OF OR RELIANCE UPON ANY SUCH INFORMATION, ANY ERROR OR OMISSION THEREIN, OR OTHERWISE IN CONNECTION WITH THIS RFP.

3. Acceptance of Proposals

Without prejudice to the Joint CCA's rights at law or in equity, no proposal submitted by any Respondent shall be deemed accepted by, or otherwise binding upon, the Joint CCAs or any of their Affiliates and the Joint CCAs, their affiliates and their respective directors, officers, members, employees, agents and representatives shall have no obligation or liability of any kind with respect to any such proposal or otherwise in connection with this Joint RFP, unless and until a PPA has been mutually executed and delivered by the Joint

CCAs or any of their Affiliates and seller, and then such obligation or liability shall exist only if and to the extent expressly set forth or provided for therein or in another signed, binding written agreement entered into by the Joint CCAs or any of their affiliates and seller. Notwithstanding anything to the contrary in this Joint RFP, all proposals delivered to the Joint CCAs shall become the sole and exclusive property of the Joint CCAs upon receipt, and the Joint CCAs shall have all rights and privileges of ownership of such property, subject to any provision of this Joint RFP relating to confidentiality and any applicable confidentiality or other signed, binding written agreement between the Joint CCAs and respondent or seller executed in connection with this Joint RFP process.

4. Respondent Costs and Expenses

Each respondent is solely responsible for all costs and expenses it incurs in connection with this Joint RFP. Through its participation in this Joint RFP, each respondent agrees that under no circumstance, including, without limitation, the Joint CCAs withdrawal from or suspension, cancellation, or termination of the Joint RFP process, will the Joint CCAs, any of their affiliates or any of their respective directors, officers, members, partners, employees, agents, representatives or advisors have any responsibility or liability of any kind to respondent, its affiliates or any of their respective directors, officers, members, partners, trustees, employees, agents, representatives, advisors or lenders for any cost or expense directly or indirectly incurred by respondent (no matter how incurred) in connection with the Joint RFP process. Nothing in this Section 4 shall be construed to limit the generality of Section 2 above.

5. Respondent Disclosure of Joint RFP Information

No respondent may, without the prior consent of the Joint CCAs, disclose to any other person (except Joint CCA staff) its participation in the Joint RFP process (other than by attendance at any meeting to which more than one participant is invited by the Joint CCAs, which attendance in and of itself will not violate this provision of this Joint RFP). Further, no respondent may disclose, collaborate on or discuss with any other person (except Joint CCA staff) bidding strategies or the substance of proposals, including, without limitation, the price or any other terms or conditions of any contemplated, indicative or final proposal. Any such disclosure, collaboration or discussion would violate this Joint RFP and may result in the rejection of respondent's proposal or elimination of respondent from further participation in this Joint RFP.

6. Respondent Acceptance of this Appendix D

By participating in the Joint RFP process, each respondent agrees that it will be deemed to have accepted all the rights and terms included in this Appendix D and to have agreed that its participation in the Joint RFP is subject to such rights and terms. The Joint CCAs are conducting this Joint RFP and participating in the Joint RFP process in reliance upon the foregoing agreement.



Instructions

- 1) All offer forms should completely populate the "General Info" tab
- 2) The following categories are used for projects in this solicitation:
 - Standalone Storage Storage:** A energy resource that is being submitted for consideration with no associated generation.
 - Paired Resource:** A paired energy storage and generation resource. These resources will be considered to address the capacity requirement in Ordering Paragraph 6 of the MTR order.
 - Other Generation Resources:** Generation resources that are emission-free or RPS eligible and not paired with a storage resource.
- 3) Offers should be entered in the tab consistent with their eligibility (Storage, Paired, Generation)
 - If a project is eligible for multiple categories, you may enter it for consideration in each tab. Please use the same project name.
 - **If a project is only intended to be contracted as a paired resource, only enter data in the paired tab.**
 - Each offer will be assumes to be independently valid. If there are dependencies or portfolio requirements, please include them in the notes.
 - The same project can be submitted with alternative terms and pricing as separate offers. Please use the same project name.
- 4) The following color code is used throughout the spreadsheet:

	Required entry for offer
	Calculated field
	Example offer
- 5) All projects offered are assumed to meet minimum requirements specified in the solicitation.



General Information

Respondent Information

Counterparty / Legal Entity Name:

Street Address: State: Zip:

City: Country:

Website:

MW Storage Developed and Financed:

MW RPS Developed and Financed:

Project Owner(s)

Owner Name	Owner Website	Owner %
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Primary Contact

Name: Title:

Phone: Email:

Secondary Contact

Name: Title:

Phone: Email:

Offers Submitted (must populate relevant tabs)

Standalone Storage:

Paired Resources:

Other Generation Resources:

Notes

Participant Authorization

By selecting "Yes" Participant hereby confirms that they are a "duly authorized representative of the Participant."

Title:

Electronic Signature:

Attestation

By providing the electronic signature below Participant hereby attests that all information provided in this offer and in response to the RFO is true and correct to the best of the Participant's knowledge as of the date such information is provided.

Title:

Electronic Signature:



An energy storage resource that is being submitted for consideration with no associated generation

[illegible]



A paired energy storage and generation resource. These resources will be considered to address the capacity requirement in Ordering Paragraph 6 of the MTR order.

[illegible]

Please enter the average anticipated generation for the zero-emission resource below by month and hour (12x24) at COD. Units should be in MWac or MWdc, depending on the selections above

Month / Hour	EXAMPLE	Offer #1	Offer #2	Offer #3	Offer #4	Offer #5	Offer #6	Offer #7	Offer #8	Offer #9	Offer #10	Qty
January Hour Ending 1	0.00											31
January Hour Ending 2	0.00											31
January Hour Ending 3	0.00											31
January Hour Ending 4	0.00											31
January Hour Ending 5	0.00											31
January Hour Ending 6	0.00											31
January Hour Ending 7	0.00											31
January Hour Ending 8	24.84											31
January Hour Ending 9	13.21											31
January Hour Ending 10	47.24											31
January Hour Ending 11	46.48											31
January Hour Ending 12	46.78											31
January Hour Ending 13	45.17											31
January Hour Ending 14	49.38											31
January Hour Ending 15	51.99											31
January Hour Ending 16	19.61											31
January Hour Ending 17	0.00											31
January Hour Ending 18	0.00											31
January Hour Ending 19	0.00											31
January Hour Ending 20	0.00											31
January Hour Ending 21	0.00											31
January Hour Ending 22	0.00											31
January Hour Ending 23	0.00											31
January Hour Ending 24	0.00											31
February Hour Ending 1	0.00											28
February Hour Ending 2	0.00											28
February Hour Ending 3	0.00											28
February Hour Ending 4	0.00											28
February Hour Ending 5	0.00											28
February Hour Ending 6	0.00											28
February Hour Ending 7	4.81											28
February Hour Ending 8	49.38											28
February Hour Ending 9	49.39											28
February Hour Ending 10	43.04											28
February Hour Ending 11	44.48											28
February Hour Ending 12	46.47											28
February Hour Ending 13	43.91											28
February Hour Ending 14	43.77											28
February Hour Ending 15	46.95											28
February Hour Ending 16	46.07											28
February Hour Ending 17	2.70											28
February Hour Ending 18	0.00											28
February Hour Ending 19	0.00											28
February Hour Ending 20	0.00											28
February Hour Ending 21	0.00											28
February Hour Ending 22	0.00											28
February Hour Ending 23	0.00											28
February Hour Ending 24	0.00											28
March Hour Ending 1	0.00											31
March Hour Ending 2	0.00											31
March Hour Ending 3	0.00											31
March Hour Ending 4	0.00											31
March Hour Ending 5	0.00											31
March Hour Ending 6	2.41											31
March Hour Ending 7	27.67											31
March Hour Ending 8	27.34											31
March Hour Ending 9	73.77											31
March Hour Ending 10	73.98											31
March Hour Ending 11	76.26											31
March Hour Ending 12	76.22											31
March Hour Ending 13	89.10											31
March Hour Ending 14	77.64											31
March Hour Ending 15	74.68											31
March Hour Ending 16	51.68											31
March Hour Ending 17	52.81											31
March Hour Ending 18	0.00											31
March Hour Ending 19	0.00											31
March Hour Ending 20	0.00											31
March Hour Ending 21	0.00											31
March Hour Ending 22	0.00											31
March Hour Ending 23	0.00											31
March Hour Ending 24	0.00											31
April Hour Ending 1	0.00											30
April Hour Ending 2	0.00											30
April Hour Ending 3	0.00											30
April Hour Ending 4	0.00											30
April Hour Ending 5	0.00											30
April Hour Ending 6	0.00											30

[illegible]

[illegible]



Generation resources that are emission-free or RPS eligible and not paired with a storage resource

</

Executive Summary

Briefly explain the project, including technology, capacity size, location, and COD. Include a summary of your company, including corporate headquarters and website address.	
In detail, please describe the respondent's experience within CAISO and other WECC markets. Please list Who on your staff or consultant basis will be managing your interconnection agreement process with the transmission company? Could you explain their expertise and experience in working with the transmission company? Could you explain a specific event that your company or this individual(s) has experienced an unexpected delay by the transmission company, how that event was handled and how you were able to escalate the situation. Was the outcome favorable to the developer or was the project delayed? Who on your staff or consultant basis will be managing your new resources becoming registered through the CAISO process? Could you explain their expertise and experience in working with the CAISO. Who specifically have you worked with at the CAISO on past projects? Could you provide an example of a specific event(s) that your company or this subject matter expert has experienced unexpected delays by the CAISO and how that event was handled? How did you escalate the situation? Was the outcome favorable to the developer or was the project delayed or terminated?	
Provide a summary of ownership or joint ownership of the resource.	
Provide a description of project financing plan.	
Provide a description and details of any existing transmission service from the facilities' point of interconnection, including any details that are available about any past system impact studies or facility studies for service that originated or would have originated from the facilities' point of interconnection.	

<p>Please describe the status of interconnection agreement including status of open modification requests and interconnection agreement amendments, including the status of any required or optional system upgrades (reliability or deliverability related).</p> <p>Provide details regarding any CAISO sponsored deliverability studies from the facility.</p>	
<p>Please identify the necessary permits, including land use entitlement permit (e.g., Conditional Use Permit (CUP), Application for Certification (AFC), Record of Decision (ROD)) from lead land use permitting agency and all discretionary permits from other lead, trustee and/or responsible agencies including wildlife agencies. Describe the status of all permits, including planned efforts to obtain these permits, the status of discussions with state and federal wildlife agencies, and any recommendations regarding permits from those agencies.</p>	
<p>Please state whether the project may impact any federal, state, local or other conservation designations or planning effort, and if yes, what they are. Describe any onsite efforts that the project has made to avoid impacts to protected areas, habitats, and habitat linkages (especially for threatened and endangered species) and open space in urbanized areas.</p>	
<p>"Multi-benefit energy projects" provide additional societal, health, economic, water saving, or environmental benefits beyond the climate and GHG reduction benefits of renewable energy. Please describe any additional benefit(s) that your project demonstrates.</p>	
<p>Please describe the type of materials used for the project equipment, and whether there are any toxic materials used. Describe how such materials will be safely disposed of or recycled at the end of the project's life, including any decommissioning plans and plans for disposal of equipment at the end of the project's life.</p>	

<p>Please confirm that this proposal for storage facilities does not rely on equipment or resources built with forced labor. Consistent with the business advisory jointly issued by the U.S. Departments of State, Treasury, Commerce and Homeland Security on July 1, 2020, equipment or resources sourced from the Xinjiang region of China are presumed to involve forced labor.</p>	
<p>Does your organization typically utilize or require your prime contractor to utilize multi-trade project labor agreements?</p>	
<p>Does your organization typically utilize community benefit agreements?</p>	
<p>Will the workforce for this project be paid prevailing hourly wages?</p>	
<p>For this project, do you plan to support and use State of California approved apprenticeship programs and / or graduates of local pre-apprenticeship programs?</p>	
<p>Please list the projected number of new jobs (both part-time and full-time) that would be created during the construction and operation phases.</p>	
<p>If known, please list the CalEnviroScreen score of the community in which the project will be located and any increases or decreases in air pollution and other environmental impacts due to the proposed project.</p>	
<p>Please list three professional references.</p>	

**California Community Power
2021 Request for Offers
for
Firm Clean Energy Resources**

RFO RELEASE DATE: October 25, 2021

RESPONSE DEADLINE: December 13, 2021 at 5:00 PM PST

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1 General Information

1.1 Introduction & Purpose

On behalf of Central Coast Community Energy, CleanPowerSF, East Bay Community Energy, MCE, Peninsula Clean Energy, Redwood Coast Energy Authority, San Jose Clean Energy, Silicon Valley Clean Energy, Sonoma Clean Power and Valley Clean Energy (collectively, the "Joint CCAs"), California Community Power ("CCPower") hereby issues this Request for Offers ("RFO") for the sale of firm clean resources ("FCR") as defined in more detail in California Public Utilities Commission ("CPUC") Decision 21-06-35, Ordering Paragraph 2(b) (OP 2(b)), as well as existing resources that otherwise meet the requirements of OP 2(b).¹ CCPower is seeking to acquire up to 200 MWs of FCR through one or more Projects, with deliveries beginning no later than June 1, 2026.

Information specific to each of the CCAs listed above can be found at their respective websites.

1.2 Joint RFO Documents

This RFO document consists of a main body and seven (7) Appendices, one of which (Appendix A) will be made available no later than November 15, 2021. The main body (i) offers general information pertaining to this RFO, (ii) describes the purpose and drivers of this RFO and provides high-level considerations for Offerors, (iii) includes a milestone schedule for this RFO, (iv) sets forth terms governing the preparation and submission of offers and RFO-related communications with CCPower, and (v) provides a high-level overview of the process for evaluating and selecting offers submitted in response to this RFO.

The Appendices are as follows:

- Appendix A - Offer Form (To be made available by November 15, 2021)
- Appendix B - Pro Forma Term Sheet (Separately Posted)
- Appendix C - Reservation of Rights
- Appendix D - Exclusivity Agreement (To be made available by November 15, 2021)
- Appendix E – Additional Questions Related to Labor, Permitting, Environmental Issues, Supply Chain, and Disadvantaged Communities
- Appendix F – Instructions for Geospatial Footprint
- Appendix G – Enhanced Conditions

Offerors are responsible for familiarizing themselves with and being fully aware of the terms of this RFO, including the terms of each Appendix.

¹ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K603/389603637.PDF>

1.3 RFO Website

This RFO and related materials and information will be posted on a CCPower RFO website at <https://cacomunitypower.org/solicitations/>. The website will be updated from time-to-time with additional information related to this RFO. Interested persons and Offerors are responsible for monitoring the websites to ensure the timely receipt of information about this RFO.

1.4 RFO Administrator

The RFO Administrator is CCPower. San Jose Clean Energy ("SJCE") will undertake the day-to-day administration subject to direction by CCPower, and the CCPower board.

The RFO Administrator's responsibilities include (i) acting as a liaison between the participants in this RFO and the Joint CCAs on all RFO-related matters, (ii) ensuring that Offeror questions CCPower receives in a timely manner are addressed in an appropriate manner, (iii) receiving, recording and maintaining offers, and (iv) managing other administrative matters relating to this RFO.

As detailed in Section 3.4 below, all questions, requests, and other inquiries or communications from or on behalf of Offerors to CCPower or the Joint CCAs about this RFO must be directed in email to the RFO Administrator.

The contact information for the RFO Administrator is:

Kelly Morris, SJCE Power Resources Specialist II

Email: solicitations@cacomunitypower.org

2 RFO Overview

2.1 Eligible Project, Products Sought, and Requirements

Offers submitted pursuant to this RFO will be evaluated for their ability to meet CCPower's capacity target in accordance with the terms of this RFO. The evaluation is based on a best fit and value at the lowest reasonable cost, considering, without limitation, cost, reliability, risk mitigation, and other relevant factors including the ability to provide enhanced grid reliability.

Table 2.1

Eligible Project	<p>Either:</p> <ol style="list-style-type: none">1) A new generation resource with at least an 80 percent capacity factor that has:<ol style="list-style-type: none">a. No on-site emissions; orb. otherwise qualifies under the California Renewable Portfolio Standard (RPS) program eligibility rules.
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	<p>Resources must not be use limited or weather dependent. Resources must meet the requirements set forth in CPUC D.21-06-035, Ordering Paragraph 2.(b), including but not limited to, being incremental to the CPUC's baseline list.²</p> <p>Resources must also meet minimum CPUC and CAISO requirements for participation in the Resource Adequacy program; OR</p> <p>2) Existing generating resources that otherwise meet the requirements of 1) above.</p> <p>For purposes of this RFP, all RPS products must be PCC1.</p> <p>Projects may include portions of a larger project but must be separately metered.</p>
Product & Attributes	Energy, Capacity, Environmental Attributes, RA counting rights, and any other attributed benefits of the project.
Project Location	Resources must interconnect directly to the transmission or distribution system (i.e. "in front of the meter") and be able to participate directly in CAISO electricity markets or if not directly interconnected to the CAISO must have the ability to provide Energy and RA as a dynamic transfer.
Delivery Term	<p>Commercial Operation must occur no later than June 1, 2026.</p> <p>Minimum delivery term of 10 years, and a maximum delivery term of 25 years.</p>
Scheduling	Seller should indicate whether or not they propose to be the scheduling coordinator and any dispatch flexibility they will offer for the Project.
Price	<p>Pricing must be provided in the following format:</p> <ul style="list-style-type: none"> • \$/MWh, with no escalation, for all Products except RA • \$/k-month, with no escalation, for each kw of eligible NQC for RA <p>Bidder must provide bids at NP15 and at the pNode</p> <p>Offerors may submit multiple prices per Project based on varying term, or capacity. All Offers must be for PPA having a duration of at least ten (10) years.</p>

² https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/d2106035_baseline_gen_list.xlsx

	<p>Pricing should assume one PPA per Project. If there are any differences in price based on the Offeror entering multiple PPAs for a Project, these differences must be noted in the offer.</p> <p>Offerors must credit to Buyer no less than 75% of the value of any tax credit enacted after the agreement is signed that is applicable to a Project for which there is a submitted bid.</p>
Minimum Project Capacity	5 MW of NQC per Project
Imports	Imports must meet the eligibility and counting rules of the CPUC and CAISO resource adequacy programs in place at the time of contract execution and must be associated with a new resource or an increase of capacity from an existing resource with a commercial online date that is after June 30, 2021. Imports must meet the requirements of D.21-06-035 including those set forth in Ordering Paragraph 7. Bidders of imports must describe in their response whether and how they recommend that CCPower mitigate the risk of insufficient MIC to receive the full benefit of the Project. CCPower will consider in its evaluation of an imported project the risk of obtaining RA from import projects. Any imports must be PCC1.
Existing Resources and Portfolio Resources.	Existing resources are eligible to participate and will be assessed pursuant to the Scoring Rubric set forth in Table 2, Section 4.2.1. In assessing value, CCPower will consider that new resources may be used to meet the CPUC requirements set forth in D. 21-06-035 whereas existing resources may not be used for this purpose unless they are an increase from the capacity in the baseline. In addition, Bidders may bid a portfolio of resources. Such portfolios will similarly be evaluated on their value meeting CPUC requirements. However, each offer must stand on its own and be an exclusive offer. CCPower will not mix and match in evaluating bids.
Workforce and Environmental Requirements	<p>All resources must:</p> <ul style="list-style-type: none"> • comply with California prevailing wage provisions applicable to public works projects. • be subject to an audit to ensure compliance with payment of prevailing wages and to evaluate use of apprenticeship programs, unless there is a project labor agreement in place. • meet the permitting requirements of the appropriate governing authority/authorities. • attest to not using forced labor in its supply chain. • identify project benefits to local communities. <p>We prefer resources that:</p>

	<ul style="list-style-type: none"> • use of local labor. • avoid sensitive habitat areas. <p>These requirements are set forth more fully in Appendix G: Enhanced Conditions.</p>
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It is the intent of CCPower to select one or more offers for consideration for this RFO (each such resource, a “Project”) with the added intent of negotiating and executing a “Power Purchase Agreement” (“PPA”) for shortlisted Projects.

The foregoing is intended as a high-level overview and is not an exhaustive list of important commercial terms for a PPA resulting from this RFO. Please refer to [Appendix B](#) and the sections below for other relevant commercial provisions or considerations.

3 RFO Milestones and Offer Submission

3.1 Schedule

The RFO Schedule below sets out critical milestone events and deadlines for Offerors interested in participating in this RFO. Notice of any change to the RFO Schedule will be posted on the RFO website.

Table 3.1

Activity	Scheduled Date
Issuance of RFO	October 25, 2021
RSVP 1 st Offerors Webinar	October 26, 2021 5 PM (PST)
1 st Offerors Webinar	October 27, 2021 2:30-3:30 PM (PST)
Issuance of Bid RFO Spreadsheet	November 15, 2021
RSVP 2 nd Offerors Webinar	November 16, 2021 5PM (PST)
2 nd Offerors Webinar	November 17, 2021 2:30-3:30 (PST)
Deadline to submit questions	November 19, 2021
Responses to questions published	November 24, 2021
Deadline to submit proposals	December 13, 2021 by 5:00 pm (PST)
Review, evaluation and ranking of projects	December 13, 2020 to February 18, 2022
Project(s) shortlisting	February 18, 2022

Developer/Buyer Negotiations	February – April 2022
Final contract execution (Tentative)	July 2022

3.2 Bid RFO Spreadsheet

The Bid RFO Spreadsheet will be issued on or before November 15, 2021.

3.3 Offerors' Webinar

CCPower will hold two Offerors' Webinars, as set forth in Table 3.1 above to review the RFO and respond to questions from prospective Offerors. Any potential Offerors interested in attending should RSVP to solicitations@cacomunitypower.org, in accordance with the dates set forth in Table 3.1 above, and indicate how many participants will attend. Webinar information will be posted on the RFO website.

3.4 Submission and Posting of RFO Questions

Offerors and other interested Persons are encouraged to submit questions about this RFO to the RFO Administrator (using the contact information provided above RFO Administrator). All questions regarding this RFO must be submitted by email in accordance with the timeline in Table 3.1.

Subject to consideration of confidentiality concerns, CCPower intends to post all questions submitted by Offerors, as well as responses to those questions on the RFO website. All questions will be posted anonymously to shield the identity of Offerors who posed the questions. CCPower's objective in posting questions and answers is to afford Offerors equal access to information potentially relevant to their offers. Offerors are urged to submit RFO questions as early as possible, in consideration of the offer submission deadlines. Responses to questions will be posted by in accordance with the timeline in Table 3.1.

3.5 Offer Submission

The Offer submission process requires each Offeror to submit a completed offer package, including detailed responses to Appendices A-G (and/collectively referred to as the "Offer Package"), in order to have its offer(s) evaluated under this RFO. Under the current schedule, Offerors must submit a completed Offer Package in accordance with the timeline in Table 3.1.

Offerors will each bear the risk of any failure to submit the completed Offer Package by the required deadline. Offers for which Offeror does not submit all appendices, information, and materials required by this RFO may be considered non-conforming and eliminated from consideration. Responsive offers are those which are deemed conforming to all requirements listed in this RFO document.

All offers must be submitted in email form with the appropriate attached documents to the following email address: solicitations@cacommunitypower.org

4 Offer Evaluation

4.1 Offer Requirements

To be compliant Offers must meet the following requirements:

- a) The Project must meet the requirements set forth in this RFO, including Section 2.
- b) The completed Offer Package must be received by the RFO Administrator in accordance with the timeline in Table 3.1.
- c) All portions of the Offer Package must be received in the appropriate digital formats – pdf for narrative documents and Excel spreadsheets for the associated data templates. Requested edits to Appendix B, as applicable, must be sent in Office Word format and include either tracked changes or similar redline indicating requested edits.
- d) All associated data templates must be completed satisfactorily and provided with the Offer Package. It is the duty of the Offeror to contact the RFO Administrator for clarification regarding completion of data templates and the applicable Appendices. Incomplete templates are grounds for non-consideration of an offer. Please note that responses to questions about data templates and other aspects of the RFO will only be answered via the formal Q&A process.
- e) Submission must include a section summarizing offer characteristics and qualifications related to each scoring category (see below in Section 4).
- f) After receipt of offers, CCPower may contact Offerors to request clarification about unclear portions of their offer. Offerors will have 5 business days to respond or the offer may be removed from further consideration.

4.2 Evaluation and Shortlisting Process

After our initial review of offers, the RFO evaluation will consist of two phases:

Phase 1

All compliant offers will be scored and ranked according to the scoring rubric detailed below.

Phase 2

Top-scoring offers will be modeled to yield a final, in-depth understanding of their expected performance and cost effectiveness. These results will reveal the highest-value resources for CCPower and the Joint CCAs, and those offers will be Shortlisted and the Offerors contacted for negotiation of contracts.

Explanation of Scoring Categories

The scoring will be based on the categories detailed in Table 4.1 below:

Table 4.1: Phase 1 Scoring Rubric

Criteria Component	Points
Expected Value (PPA cost minus Project Value)	40
Project Risk	40
Experience	10
Environmental	5
Labor	5

Expected Value

The expected value of the proposed resource is a primary concern for ranking offers. Offers will be scored based on the competitiveness of their total cost relative to the value of the project. The value of the project will be derived from stochastic modeling conducted by CCPower along with stress testing under various market and/or regulatory scenarios. Expected value will take into account the project term.

Project Risk

Offers will be scored based on a qualitative assessment of the risks inherent in the proposed project. Considerations in this category may include status and position in an interconnection queue, transmission upgrades and other issues, project feasibility including financing plan, deliverability concerns, exploration risk for new geothermal or other resources, concerns about cost structure or contract terms, project susceptibility to changes in legislation, etc. An assessment of project risk will include:

1. Project technology.
2. Project site: CCPower has a strong preference for projects that have site control.
3. Project interconnection and transmission: CCPower has a strong preference for projects that have at least a phase 2 study or its equivalent and that can demonstrate they will be fully deliverable.
4. Project permitting.

5. Project financing.
6. Equipment and labor.
7. Compliance with CPUC requirements.
8. Delivery Term. Shorter terms and projects demonstrating a higher certainty with respect to meeting the mandatory June 1, 2026 in service date will be scored more highly.

Offeror Experience Delivering Projects of Similar Scope and Magnitude

Offerors will be assessed for experience as a firm and/or based on the experience of the members of the project team.

Environmental Impact

Each Project will be assessed on its contribution towards meeting California's greenhouse gas reduction targets and other environmental impacts throughout its installation, operation, and ultimate decommissioning. Projects will be evaluated on their environmental footprint, including land use, air quality and water impacts. Projects that avoid sensitive habitat areas will be preferred.

Labor and Community Benefits

Each project must comply with the Enhanced Conditions set forth in Appendix G. Preference will be given to projects with a Project Labor Agreement, projects that use local labor, and projects that provide benefits to the community in which they are located or to the CCA communities, particularly disadvantaged customers.

4.3 Response Package

Offeror's response package must include all information requested in this RFO including but not limited to:

- 1) Offerors must fill out the Bid Form that will be made available by November 15, 2021 for each Bid.
- 2) Offerors must provide a narrative that addresses all matters set forth in this RFO including but not limited to the following:
 - a. Executive Summary: Offers must contain an executive summary section (max 2 pages) summarizing the characteristics and qualifications of the proposed project.
 - b. Please describe the Project including project location, technology (including details for example in the case of geothermal the type of technology), size, and

status. Describe if the project is new or existing. If new, state the expected COD. If a portfolio please describe in detail all the resources that will comprise the portfolio.

c. Please state:

- Delivery term
- Will Offeror be the Scheduling Coordinator
- Imports must describe how CCPower can moderate the risks associated with obtaining necessary MIC

d. Please describe all aspects of project value.

e. Please address each aspect listed in project risk above.

- Project technology: Describe the type of project in detail including the technology and approach to be used. Describe whether this technology and/or approach has been used in the past and its performance history. Offerors must demonstrate that their technology has been deployed at least on a pilot basis. Technologies with a well-established successful commercial deployment and operating history will be rated more favorably. Describe any risks related to the technology or approach to be used and any steps to be taken to reduce these. State what assessment Offeror has undertaken of the resource powering the project. If applicable, describe the source of the fuel and address its long-term viability.
- Project site: CCPower has a strong preference for projects that have site control. Describe the project site in detail including location, acreage, compatibility with proposed project, community response to the proposed project, steps taken or to be taken to secure the site. Provide a description of the current land use of the project footprint, description of status of site control and a detailed site map showing nearest cross streets, latitude and longitude, and any gen-tie required.
- Project interconnection and transmission: CCPower has a strong preference for projects that have at least a phase 2 study or its equivalent and that can demonstrate they will be fully deliverable. Please describe whether Offeror has submitted an application for interconnection, and the status of the application. Describe the project's proposed interconnection, including proximity to transmission interconnection, any new interconnection facilities or Network Upgrades that would need to be built. Provide queue position, status of completed studies (System Impact Study, Facilities Study, Phase 1 Study, Phase 2 Study, CAISO Full Deliverability Study), interconnection level of the proposed generator

(Distribution or Transmission), scheduled Commercial Operation Date and progress related to any applicable agreement. Describe any risks related to the interconnection and full deliverability of the Project and any steps to be taken to reduce these.

- Project permitting: Please identify the required permits and the issuing agencies and state current permitting status. Discuss the steps being taken to obtain needed permits to build and operate the project, and the expected timeline for issuance of such permits. State whether the project is contingent on any re-zoning of the project site, and what environmental impact assessments (e.g. CEQA or NEPA review) if any will be required. Identify any risks to project permitting, and any steps being taken to reduce these.
 - Project financing: Please discuss how the project will be financed, requirements to obtain the financing, the timeline and steps to obtain the financing, any risks to obtaining financing, and any steps to be taken to reduce these.
 - Equipment and labor. Please discuss plans and arrangements to date for obtaining the equipment, materials, and labor required to build the project. Describe any risks related to equipment, materials and labor and any steps to be taken to reduce these.
 - Compliance with CPUC requirements. Please describe whether and how the project complies with the requirements for firm clean resources, set forth in CPUC D.21-06-035, Ordering Paragraph 2.(b). Discuss any questions or issues that could arise with respect to such compliance and how these will be addressed.
 - Delivery Term. Shorter terms and projects demonstrating a higher certainty with respect to meeting the mandatory June 1, 2026 in service date will be scored more highly.
- f. Please describe Offeror including the organization and the project team. Describe Offeror's experience delivering projects of a similar technology, approach, and size as the proposed project. Provide a resume or bio for each member of the project team.
- g. Please describe in detail all aspects of environmental impacts described above including footprint, emissions, effluents, and by-products, any impacts on sensitive habitats and how any impacts on the environment will be addressed. Please answer the questions in Appendix E, and demonstrate compliance with the requirements of Appendix G, and follow the instruction for Geospatial Footprint in Appendix F to create an appropriate ArcGIS file.

All projects are required to submit an ArcGIS file of the relevant geospatial footprint of the project.

- h. Please describe how the project will promote fair labor practices. Describe whether the project will have a Project Labor Agreement and with what trades. Identify any project benefits to the CCA communities, including disadvantaged communities. Describe any benefits the project provides the community in which it is located, including resiliency and/or benefits to disadvantaged CCA customers. Indicate efforts to use local labor. Please answer all questions in Appendix E and describe how the project will comply with the Enhanced Conditions set forth in Appendix G.
- 3) Please provide any mark ups to the Term Sheet desired by Offeror. Offerors will be expected to accept the terms in the Term Sheet unless the Offeror indicated it would seek changes in its response to this RFO.

4.4 Shortlisting and Exclusivity Agreement

After the completion of Phase I, the RFO Administrator will communicate to each Offeror the status of its offer(s) and whether additional discussions or negotiations are warranted. The most favorable offers will be eligible to be placed on a shortlist (the "Shortlist") for negotiations of a PPA.

In order to be placed on the Shortlist, an Offeror will need to execute an Exclusivity Agreement (Appendix D – to be provided by November 15, 2021), for each shortlist Offer, giving CCPower exclusivity in negotiating with Offeror for the Project. A deposit in the form of cash or Letter of Credit ("LOC") in the amount of \$3/kW (the "Shortlist Deposit") is required to secure the Exclusivity Agreement. The Shortlist Deposit will be promptly returned to Offeror in its entirety under one or more of the following conditions, following: (i) execution of a PPA, (ii) the CCPower's determination not to proceed with PPA negotiations for the offer, (iii) failure of CCPower and Offeror to agree on the terms of a PPA, or (iv) CCPower's termination of the Joint RFO process.

Offeror will forfeit its Shortlist Deposit and CCPower will have the right to draw on the Shortlist Deposit in its entirety, as its sole and exclusive remedy, if (i) CCPower determines that Offeror made any material misrepresentations in its offer, (ii) Offeror materially breaches its obligations under the Exclusivity Agreement, or (iii) Offeror unilaterally withdraws the offer or attempts to materially modify the terms of its offer prior to the Exclusivity Deadline.

Placement of an offer on the Shortlist or execution of the Exclusivity Agreement does not constitute or indicate acceptance of any offer, any term thereof, or any related contract term. Without limiting Appendix C, CCPower and the Joint CCAs have (i) no obligation and make no commitment of any kind to enter into a transaction with any Offeror, including a Offeror with an

offer on the Shortlist, or to be bound by any term proposed by Offeror, and (ii) no obligation or liability with respect to any proposed transaction arising out of this RFO except as may be expressly set forth in a fully-executed PPA.

5 Miscellaneous RFO Matters

Without limiting Appendix C, CCPower and the Joint CCAs reserve the right to withdraw, suspend, cancel, or terminate this RFO, or to modify any term of this RFO, including, without limitation, any term concerning the RFO Schedule (including any date), at any time in their sole discretion. CCPower will endeavor to notify all participants of any such withdrawal, suspension, cancellation, termination, or modification made prior to the Required Offer Submission Time and to post notice of any such action.

**Appendix A: Offer Form (Will be made available by
November 15, 2021)**

Appendix B: Term Sheet (Posted Separately)

Appendix C: Reservation of Rights

1. Reservation of Rights

Notwithstanding anything to the contrary, CCPower and the Joint CCAs may, and expressly reserve the right to, at any time and from time to time, without prior notice and without assigning or providing any reason therefore:

- cancel, suspend, withdraw, or terminate this RFO (including, without limitation, after the selection under this RFO of one or more Offerors for an PPA) or cancel or suspend its participation in this RFO;
- modify this RFO, including, without limitation, any Appendix to this RFO, or any of the dates, times or places set forth in the RFO or related to the RFO process;
- accept, refuse to accept, consider, not consider, favor, disfavor, recommend, not recommend, pursue or reject any offer, in its sole and absolute discretion, for any reason;
- without limitation of the generality of any of the other terms herein, reject or eliminate any offer submitted in response to this RFO that is incomplete, is nonconforming, or contains irregularities (or waive any irregularity in any offer), or that it determines was made with the intent to create artificial prices, terms, or conditions or would have that effect;
- carry out negotiations with any, some or all Offerors or other Persons related to this RFO, and suspend or terminate negotiations with any Offeror or other Person at any time, including, without limitation, as a result of any change in resource needs of the Joint CCAs giving rise to this RFO;
- discuss the terms of any offer or any other material submitted by Offeror with, and obtain clarification or additional information concerning such offer or such other material from, Offeror or its directors, officers, employees, agents, representatives, and advisors;
- request from Offeror information not detailed in or required by this RFO but that may be necessary or relevant to the evaluation of Offeror's offer(s) and utilize such information as the Joint CCAs deems appropriate in connection with such evaluation of this RFO;
- receive, consider, pursue, or transact on (i) opportunities to acquire other assets or resources offered or that become available outside of the RFO process as such opportunities arise or (ii) offers offered in response to this RFO that are nonconforming or eliminated from consideration in this RFO;
- invite further offers in or outside of this RFO or supplemental submissions of offers;

- allow for other load serving entities and/or agencies not part of the Joint CCAs to receive information submitted as part of this RFO or participate in one or more PPA;
- determine which Offerors or entities to allow, or continue to allow, to participate in the RFO process;
- pursue or transact on offers offered in response to this RFO regardless of any rank order established in the RFO evaluation process to promote diversity of supply in this RFO, gain experience with different technologies, limit exposure to a counterparty, technology or resource or a particular set of risks, or achieve other commercial goals the Joint CCAs deem appropriate;
- sign or not sign an PPA with Offerors or other Persons relating to the Transactions solicited by this RFO;
- subject to the terms of any applicable confidentiality agreement entered into between CCPower and Offeror, retain, archive, or destroy any information or material provided to or for the benefit of CCPower or the Joint CCAs in the Offer Submission Process; and
- take any and all other actions it deems necessary or appropriate, in their sole and absolute discretion, in connection with this RFO and the RFO process.

Each of the foregoing rights (including any right listed in a series of rights) may be exercised individually by CCPower or the Joint CCAs or any director, officer, employee, or authorized agent or representative of CCPower or the Joint CCAs or its or their respective parent. The reservation of rights contained herein is in addition to all other rights reserved or granted to CCPower or the Joint CCAs or any of its Affiliates elsewhere in this RFO or otherwise held by or available to CCPower or the Joint CCAs or any of its Affiliates.

2. No Warranties or Liabilities

BY PARTICIPATING IN THE RFO PROCESS, EACH OFFEROR AGREES THAT, EXCEPT TO THE EXTENT CONTAINED IN AN ENERGY STORAGE SERVICES AGREEMENT WITH OFFEROR:

- (A) ALL MATERIAL AND OTHER INFORMATION FURNISHED BY OR ON BEHALF OF CCPOWER OR THE JOINT CCAS OR ANY OTHER AFFILIATE OF THE JOINT CCAS IN CONNECTION WITH THIS RFO IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND
- (B) CCPOWER, THE JOINT CCAS, THEIR AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, PARTNERS,

EMPLOYEES, AGENTS, REPRESENTATIVES AND ADVISORS SHALL HAVE NO LIABILITY TO ANY OFFEROR, ANY OF ITS AFFILIATES, OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, PARTNERS, EMPLOYEES, AGENTS, REPRESENTATIVES, ADVISORS, LENDERS, OR INVESTORS RELATING TO OR ARISING FROM THE USE OF OR RELIANCE UPON ANY SUCH INFORMATION, ANY ERROR OR OMISSION THEREIN, OR OTHERWISE IN CONNECTION WITH THIS RFO.

3. Acceptance of Offers

Without prejudice to CCPower's or the Joint CCAs' rights under law or in equity, no offer submitted by any Offeror shall be deemed accepted by, or otherwise binding upon, CCPower, or the Joint CCAs or any of its Affiliates and CCPower, the Joint CCAs, their Affiliates and their respective directors, officers, members, employees, agents and representatives shall have no obligation or liability of any kind with respect to any such offer or otherwise in connection with this RFO, unless and until a PPA has been mutually executed and delivered by CCPower, the Joint CCAs or any of its Affiliates and Seller, and then such obligation or liability shall exist only if and to the extent expressly set forth or provided for therein or in another signed, binding written agreement entered into by CCPower, the Joint CCAs or any of its Affiliates and Seller. Notwithstanding anything to the contrary in this RFO, all offers delivered to CCPower shall become the sole and exclusive property of CCPower upon receipt, and CCPower shall have all rights and privileges of ownership of such property, subject to any provision of this RFO relating to confidentiality and any applicable confidentiality or other signed, binding written agreement between CCPower or the Joint CCAs and Offeror or Seller executed in connection with this RFO process.

4. Offeror Costs and Expenses

Each Offeror is solely responsible for all costs and expenses it incurs in connection with this RFO. Through its participation in this RFO, each Offeror agrees that under no circumstance, including, without limitation, CCPower's withdrawal from or suspension, cancellation, or termination of the RFO process, any of its Affiliates or any of their respective directors, officers, members, partners, employees, agents, representatives or advisors have any responsibility or liability of any kind to Offeror, its Affiliates or any of their respective directors, officers, members, partners, trustees, employees, agents, representatives, advisors or lenders for any cost or expense directly or indirectly incurred by Offeror (no matter how incurred) in connection with the RFO process. Nothing in this Section 4 shall be construed to limit the generality of Section 2 above.

5. Offeror Disclosure of RFO Information

Further, no Offeror may disclose, collaborate on or discuss with any other Person (except CCPower, or the Joint CCAs staff) bidding strategies or the substance of offers, including, without limitation, the price or any other terms or conditions of any contemplated, indicative or final offer. Any such disclosure, collaboration or discussion would violate

this RFO and the Offer Submission Agreement and may result in the rejection of Offeror's offer or elimination of Offeror from further participation in this RFO.

6. Public Records

All documents submitted in response to this Request will become the property of CCPower upon submittal and will be subject to the provisions of the California Public Records Act and any other applicable disclosure laws. Upon submission, all proposals shall be treated as confidential until the selection process is completed. Once a contract is awarded, all proposals shall be deemed public record. CCPower and the Joint CCAs are required to comply with the California Public Records Act as it relates to the treatment of any information marked "confidential." Respondents requesting that portions of its submittal should be exempt from disclosure must clearly identify those portions with the word "Confidential" printed on the lower right-hand corner of the page. Each page shall be clearly marked and separable from the proposal in order to facilitate public inspection of the non-confidential portion of the proposal. CCPower and the Joint CCAs will consider a respondent's request for an exemption from disclosure; however, if CCPower or the Joint CCAs receive a request for documents under the California Public Records Act, CCPower or the Joint CCAs, as applicable, will make a decision based upon applicable laws. Respondents should not over-designate material as confidential, and any requests or assertions by a respondent that the entire submittal, or significant portions thereof, are exempt from disclosure will not be honored.

7. Offeror Acceptance of this Appendix C

By participating in the RFO process, each Offeror agrees that it will be deemed to have accepted all the rights and terms included in this Appendix C and to have agreed that its participation in the RFO is subject to such rights and terms. CCPower and the Joint CCAs are conducting this RFO and participating in the RFO process in reliance upon the foregoing agreement.

Appendix D: Exclusivity Agreement (Will be made available by November 15, 2021)

Appendix E: Additional Questions

Labor

- Does your organization typically utilize or require your prime contractor to utilize multi-trade project labor or community benefit agreements on project developments?
- Has your project secured, or does it plan to secure multi-trade project labor or community benefit agreement? If so, which trades are / will be party to the agreement?
- Will the workforce for this project be paid the correct prevailing hourly wage rates for each craft, classification and type of work performed?
- Do you typically support and use State of California approved apprenticeship programs and / or graduates of local pre-apprenticeship programs?
- For this project, do you plan to support and use State of California approved apprenticeship programs and / or graduates of local pre-apprenticeship programs?

Permitting / Environmental

- Please identify the necessary permits, including land use entitlement permit (e.g., Conditional Use Permit (CUP), Application for Certification (AFC), Record of Decision (ROD)) from lead land use permitting agency and all discretionary permits from other lead, trustee and/or responsible agencies including wildlife agencies? Please describe the status of all permits, including planned efforts to obtain these permits, the status of discussions with state and federal wildlife agencies, and any recommendations regarding permits from those agencies.
- Please state whether the project may impact any federal, state, local or other conservation designations or planning effort, and if yes, what they are.
- Please describe any onsite efforts that project has made to avoid impacts to protected areas, habitat and habitat linkages (especially for threatened and endangered species) and open space in urbanized areas.
- "Multi-benefit energy projects" provide additional societal, health, economic, water saving, or environmental benefits beyond the climate and GHG reduction benefits of renewable energy. Please describe any additional benefit(s) your project demonstrates.

Supply Chain

- Please describe the type of materials used for the project equipment, and whether there are any toxic materials used.
- Please describe how such materials will be safely disposed of or recycled at the end of the project's life, including any decommissioning plans and plans for disposal of equipment at the end of the project's life.
- Please confirm that this proposal for storage facilities does not rely on equipment or resources built with forced labor. Consistent with the business advisory jointly issued by the U.S. Departments of State, Treasury, Commerce and Homeland Security on July 1,

2020, equipment or resources sourced from the Xinjiang region of China are presumed to involve forced labor.

DACs

- Is your project located within a Disadvantaged Community (DAC)? If so, please describe any benefits your project provides to the local community.

Appendix F: Geospatial Footprint

Please submit a geospatial footprint of your project. Please use the following guidelines:

- 1- Geospatial footprint should be in an ESRI Shapefile format. A KML file is acceptable but Shapefiles are preferred.
- 2- Name of shapefile(s) must clearly indicate content, as necessary:
 - a. <project>_FOOTPRINT
 - b. <project>_TRANSMISSION
 - c. <project>_SUBSTATIONS
 - d. Etc. as needed
- 3- Shapefiles must be in the following Coordinate Reference System (CRS):
 - a. EPSG:4326 - WGS 84 - Geographic
- 4- Make sure submitted geospatial dataset includes all mandatory files such as ".shp", ".shx", and ".dbf", as well as a ".prj" file.
- 5- Shapefiles must include the project footprint with all associated infrastructure.
- 6- Bidders are encouraged to submit files less than 150 MB in size.

We will study the geospatial footprint of the project to evaluate whether the project is located in a restricted or high conflict area for renewable energy development. These areas include but are not limited to:

- Protected areas at the federal, state, regional, local level (e.g. County-designated conservation areas, BLM Areas of Critical Environmental Concern, critical habitat for listed species, national, state, county parks, etc.).
- Identified and mapped important habitat and habitat linkages, especially for threatened and endangered species (either state or federally listed).

Further, projects will obtain positive environmental scores if they are located in areas designated for renewable energy development or in areas that are not suitable for other developmental activities, such as EPA re-power sites.

Appendix G: Enhanced Conditions

The focus of the CC Firm Clean Resources (FCR) Project is to ensure the development of viable, cost-effective FCR project(s) that enhance grid reliability and carbon reduction while providing value to participating CCAs. This will require selecting projects that are located in areas that meet the CAISO criteria for interconnection while also being financially viable. In meeting this focus, CC Power will also consider workforce and environmental concerns for the FCR Project through enhancing the conditions imposed on project developers as follows:

1. Workforce
 - a. Any construction work contracted by parties in furtherance of this agreement, whether or not it is a public work as defined by Labor Code section 1720, shall comply with California prevailing wage provisions applicable to public works projects, including but not limited to those set forth in Labor Code sections 1770, 1771, 1771.1, 1772, 1773, 1773.1, 1774, 1775, 1776, 1777.5, and 1777.6 as they may be amended from time to time.
 - b. State a preference, but not a requirement, for a Project Labor Agreement (PLA) allowing up to 5 points in the evaluation ranking process
 - i. Note that adopting a PLA demonstrates meeting the requirements of payment of prevailing wages and use of apprenticeship programs
 - c. For projects that do not implement a PLA, require an audit to ensure compliance with payment of prevailing wages and to evaluate use of apprenticeship programs
 - d. Encourage the use of local labor
2. Environmental
 - a. All projects must meet the permitting requirements of the appropriate governing authority/authorities
 - b. State a preference for projects that avoid sensitive habitat areas
3. Environmental Justice
 - a. Require the developer to attest to not using forced labor in its supply chain which can be demonstrated by signing on to the SEIA pledge
 - b. Require developers to identify project benefits to local communities

Please provide the following Respondent and developer background information:

Respondent Information			
Counterparty/Legal Entity Name			
Street Address			
City	State	Select	Zip Code
Country			
Website			

Primary Contact	
First Name	
Last Name	
Title	
Phone	
Email	

Secondary Contact	
First Name	
Last Name	
Title	
Phone	
Email	

Respondent Experience	
MW Developed and Financed, Total	
MW Developed and Financed, in California	
Level of experience working with CCAs	Choose One

Project Owner Information (if different from Respondent Information)			
Developer Name			
Street Address			
City	State	Select	Zip Code
Country			





Owners of Respondent Entity or Project		
Name	Ownership	Website URL
	100%	
	100%	Total must equal and not exceed 100%

Instructions for Completing the FCR Offer Form

These instructions for the Offer Form template consist of the following tabs, each of which need to be completed in full:

1. FCR Facility Info
2. FCR Offer Terms
3. FCR 12x24 Generation or FCR As-Avail Generation
4. Eligibility

Submission Overview

	Boxes labeled with this color are titles and information
	Boxes labeled with this color are provided examples and required offer submissions
	Boxes labeled with this color are required or optional Respondent inputs
	Boxes labeled with this color are optional outside of standard conforming offers and may be submitted if Respondent desires

1. FCR Facility Information

Please fill out the FCR Facility Info using the following guidelines:

1. Fill out all green boxes that pertain to the facility being submitted.
2. A number of boxes may be left blank if they are not applicable to the specific facility being submitted.

2. FCR Offer Terms

Please fill out the FCR Offer Terms using the following guidelines:

1. Select either "As-Available Generation" or "12x24 Generation" for each submitted offer.
2. Enter the expected Contract Year Start Date for your offer. This will be interpreted as the Delivery Term start date associated with your offer.
Note: Commercial Operation must occur no later than June 1, 2026.
3. Enter remaining Contract Year Start Dates for offer.
4. Enter the Offered Contract Price in \$/MWh.

3. FCR 12x24 Generation

Please fill out the FCR 12x24 Generation using the following guidelines:

1. Enter the contract year and month.
2. For each "HE" or Hour Ending column, enter the generation in MWh.
3. If entering data on this tab, please do not enter data on FCR As-Avail Generation tab.

4. FCR As-Avail Generation

Please fill out the FCR As-Avail Generation using the following guidelines:

1. Enter the start date for the supplied 8760 data. This date can be either in the past or future.
2. Note that once a date is entered, the remaining dates and hours will be auto populated.
3. Note that a MINIMUM of one years worth of 8760 data is required (either actual or forecasted).
4. Enter start date for forecasted monthly data. This date will only be in the future.
5. Note that once a date is entered, the remaining monthly dates will be auto populated.
6. Enter expected monthly generation totals in MWhs for the duration of the offer term.
7. If entering data on this tab, please do not enter data on FCR 12x24 Generation tab.

5. Eligibility

Please fill out using the following guidelines:

1. Fill out all green boxes.

Disclaimer

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East Bay Community Energy Authority does not make any representations or warranties, express or implied, with respect to the information contained herein, including without limitation any representation or warranty that the information contained herein is accurate, complete or timely.



Please provide the following **project location** information:

Project Location Information	
Project Name (Enter Unique Title)	Choose One
CAISO Interconnection Prode	Choose One
Prode Proxy (Y or N)	
Project City	
Project County	
Project State	Choose One
Project Zip Code	
Project Latitude	
Project Longitude	
Project Trading Zone (Closest if Out of State)	Choose One
Project Local RA Area	Choose One
MIC Branch Group (if import)	

- Enter a Unique and Descriptive Name for your Project
- Select CAISO Prode for Project Listed in QASS-with a Minimum of 2 Years of Historical Data (List Provided is FNM as of 08/2020)
- State Whether Prode Selected is a Proxy or Actual
- City for Project Location
- County for Project Location
- State for Project Location
- Zip Code for Project Location
- Latitude for Project Location (Degrees West in Decimal). Note: should represent project center.
- Longitude for Project Location (Degrees North in Decimal). Note: should represent project center.
- Trading Zone for Project Interconnection
- Local RA Area for Project

Please provide the following **project overview** information:

Project Overview Information	
Commercial Online Date (MM/DD/YYYY)	MM/DD/YYYY
RPS Eligibility	
Energy Source	
CO2 Emissions (metric tonnes/MWh)	
Facility Nameplate MW	
Expected Annual Force Outage Rate (%)	
Expected Planned Outage Hours per Year	

Explain assumptions:

--

Explain assumptions:

Please provide the following **site control** information:

Project Site Control Information	
Is site control secured for the entire delivery term of the Offer?	Choose One
% of Land Secured Under Ownership, Lease, or Lease Option	Choose One
Project Location: Public or Private Land	Choose One
Nature of Completed Site Control	Choose One

Please provide the following **energy and attribute** information:

Project Energy and Attribute Information	
Energy Delivered (Y or N)	Yes
Green Attributes (Y or N)	Yes
Capacity Attributes (Y or N)	Yes

----- Resource Adequacy

Please provide the following **interconnection** information:

Project Interconnection Information	
Expected Interconnection Quantity MW	Choose One
Does project have a completed and returned Phase I (or equivalent) Impact Study?	Choose One
Does project have a completed and returned Phase II (or equivalent) Impact Study?	Choose One
Queue ID/Position	
Cluster Number and Allocation Group Number	
Utility Service Territory	
Point of Interconnection	
Interconnection Voltage	
Substation	
Estimated Interconnection Date	MM/DD/YYYY
Requested Full Capacity Deliverability Status?	Choose One
Secured Deliverability?	Choose One
If in process, describe next steps (eg. parking, pursuing, etc.)	
Pursuing CAISO TPO Affidavit for this Project? (Y or N)	Choose One

PROPOSAL
COMMUNITY POWER

Please provide the following offer specific information:

	Contract Year Start Date (dd/mm/yyyy)	Contract Year Stop Date (dd/mm/yyyy)	Generation Profile Submitted	Settlement Node	File (.CSV)	File (.PNG, .svg, .pdf)
Standard Offer 1 a			Choose One	Choose One		
Standard Offer 1 b			Choose One	THE MPFS, GEN-ARND		
Optional Offer 2			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 3			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 4			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 5			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 6			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 7			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 8			Choose One	ENTER SETTLEMENT NODE		
Optional Offer 9			Choose One	ENTER SETTLEMENT NODE		

Example Shape

Example Shape

Input Start Year and Month

[illegible]

Please provide the following project generation information:

EXPLANATION: If the proposed project has a variable renewable energy source.

Provide three years of historical (if available) or one year of simulated (if no historical is available) hourly generation data for the renewable resource alone (i.e. not altered by curtailment). Provide date in 'hour ending' format. Do not include daylight savings (i.e. provide all data in standard time) and do not include the effects of leap years.

Also, provide the forecasted monthly generation for the duration of the proposed project. This forecasted generation should account for any anticipated production declines due to degradation or required planned maintenance.

EXAMPLE

Hourly Generation Reference Profile		
HOUR ENDING	Date and Time (Hour Ending)	Expected Energy (MWh)
13	1/1/10 12:00 PM	35
14	1/1/10 1:00 PM	60
1	1/1/00 0:00	
2	1/1/00 1:00	
3	1/1/00 2:00	
4	1/1/00 3:00	
5	1/1/00 4:00	
6	1/1/00 5:00	
7	1/1/00 6:00	
8	1/1/00 7:00	
9	1/1/00 8:00	
10	1/1/00 9:00	
11	1/1/00 10:00	
12	1/1/00 11:00	
13	1/1/00 12:00	
14	1/1/00 13:00	
15	1/1/00 14:00	
16	1/1/00 15:00	
17	1/1/00 16:00	
18	1/1/00 17:00	
19	1/1/00 18:00	
20	1/1/00 19:00	
21	1/1/00 20:00	
22	1/1/00 21:00	
23	1/1/00 22:00	
24	1/1/00 23:00	
1	1/2/00 0:00	
2	1/2/00 1:00	
3	1/2/00 2:00	
4	1/2/00 3:00	
5	1/2/00 4:00	
6	1/2/00 5:00	
7	1/2/00 6:00	
8	1/2/00 7:00	
9	1/2/00 8:00	
10	1/2/00 9:00	
11	1/2/00 10:00	
12	1/2/00 11:00	
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19	1/2/00 18:00	
20	1/2/00 19:00	
21	1/2/00 20:00	
22	1/2/00 21:00	
23	1/2/00 22:00	
24	1/2/00 23:00	
1	1/3/00 0:00	
2	1/3/00 1:00	
3	1/3/00 2:00	
4	1/3/00 3:00	
5	1/3/00 4:00	
6	1/3/00 5:00	
7	1/3/00 6:00	
8	1/3/00 7:00	
9	1/3/00 8:00	
10	1/3/00 9:00	
11	1/3/00 10:00	
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13	1/3/00 12:00	
14	1/3/00 13:00	
15	1/3/00 14:00	
16	1/3/00 15:00	
17	1/3/00 16:00	
18	1/3/00 17:00	
19	1/3/00 18:00	
20	1/3/00 19:00	

Monthly Energy & RA Forecast		
Month	Expected Energy Production (MWh)	RA NQC (MW)
1/1/2024	925	10
2/1/2024	1250	10
2/1/1900		
3/1/1900		
4/1/1900		
5/1/1900		
6/1/1900		
7/1/1900		
8/1/1900		
9/1/1900		
10/1/1900		
11/1/1900		
12/1/1900		
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6/1/1905		
7/1/1905		
8/1/1905		

EXAMPLE

Please respond to the following eligibility requirements:

Eligible Project	
Is the project a new generation resource with at least an 80 percent capacity factor that has: a. No on-site emissions; or b. Otherwise qualifies under the California Renewable Portfolio Standard (RPS) program eligibility rules?	Choose One
Is the project an existing generation resource with at least an 80 percent capacity factor that has: a. No on-site emissions; or b. Otherwise qualifies under the California Renewable Portfolio Standard (RPS) program eligibility rules?	Choose One
Is resource use-limited? (hours of operation, air permitting, etc.)	Choose One
Is resource weather dependent?	Choose One
Is product PCC1?	Choose One
Project Location	
Can resource interconnect directly to the CAISO transmission or distribution system and participate directly in CAISO electricity markets?	Choose One
If not directly interconnected to the CAISO, does resource have the ability to provide Energy and RA as a dynamic transfer or pseudo-tie?	Choose One
Delivery Term	
Is Commercial Operation no later than June 1, 2026?	Choose One
Is delivery term between 10 and 25 years?	Choose One
Scheduling	
Does seller propose to be the Scheduling Coordinator?	Choose One
Is there any dispatch flexibility offered by project?	Choose One

Appendix A Proforma Term Sheet

THIS TERM SHEET (“**Term Sheet**”) includes the key commercial terms and conditions to be included in a proposed power purchase agreement (“**PPA**”) to be negotiated between California Community Power, a California joint powers authority (“**Buyer**”) and [e.g., *Project Company LLC*] [*state and type of corporate formation*] (“**Seller**”) (the “**Proposed Transaction**”). As used herein, Buyer and Seller are each a “**Party**” and collectively the “**Parties**.” Notwithstanding anything herein to the contrary, until a definitive agreement is approved by Buyer and signed and delivered by each Buyer and Seller, no Party shall have any legal obligations, expressed or implied, or arising in any other manner under this Term Sheet to continue negotiations or enter into the Proposed Transaction or the PPA. Capitalized terms that are not defined in the Term Sheet will be defined in the PPA.

1. PPA Terms and Conditions.

Product:	<p>The “Product” shall meet all Firm Clean Resources specifications (as defined below). The Product includes all of the following:</p> <ol style="list-style-type: none">(1) Delivered Energy: All of the electric energy generated by the Facility, delivered to the Delivery Point as measured by CAISO-approved meters, net of losses and station load, pursuant to the Scheduling Requirements;(2) Environmental Attributes: All renewable energy credits (“RECs”) and any other environmental attributes associated with Delivered Energy;(3) Capacity Attributes: All capacity rights, including resource adequacy benefits, associated with the Facility; and(4) Other attributes: All products and other attributes, if any, that may be obtained from the Facility.
Firm Clean Resource (FCR)	<p>“Firm Clean Resource” or “FCR” means a resource that meets the requirements of CPUC D.21-06-035 including those set forth in Ordering Paragraph 2.(b).</p> <p>An FCR must have at least (1) an 80 percent capacity factor and (2) zero on-site emissions or it must otherwise qualify under the California Renewable Portfolio Standard (RPS) program eligibility rules as PCC1. An FCR must be incremental to the CPUC’s baseline list. An FCR must also meet minimum California Public Utilities Commission and CAISO requirements for participation in the Resource Adequacy program.</p> <p>Specifications for PCC 1 are described in California Public Utilities</p>

	Code §399.16(b)(1), California Public Utilities Commission Decision 11-12-052, and other applicable statutes, regulations, and regulatory orders.
Facility:	“ Facility ” or “ Project ” means the [] project, located in [County], in the State of [California].
Guaranteed Capacity:	The Facility has a guaranteed nameplate capacity of [XX] MW (the “ Guaranteed Capacity ”).
RA Capacity:	The Net Qualifying Capacity (NQC) of the Facility is [XX] MW (the “ Guaranteed RA Amount ”).
Interconnection Capacity	The Facility has [XX] MW of dedicated interconnection capacity reserved for the delivery of Delivered Energy to the Delivery Point. If the Facility is not located within the CAISO Balancing Authority, the Seller has demonstrated it has the ability to interconnect to the host transmission service provider and has secured a reservation of transmission to an intertie point with the CAISO.
Contract Price:	<ul style="list-style-type: none"> • For all Non Capacity Attributes: [XX] \$/MWh with no escalation. • For all Capacity Attributes: [XX] \$/kW-month of kW NQC with no escalation. <p>[If the Seller will be the SC, the \$/MWh Contract Price will be settled as the difference between the Contract Price and the DA LMP.]</p>
Delivery Term:	[] Contract Years from the Commercial Operation Date, with each 12-month period following the Commercial Operation Date considered a “ Contract Year .”
Expected Energy:	“ Expected Energy ” means [XXX,XXX] MWh during the first Contract Year and for each Contract Year thereafter during the Delivery Term. <i>[If there is an annual adjustment for degradation, this should be noted.]</i>
Test Energy Rate:	Prior to COD, Buyer will purchase all Delivered Energy and any associated Environmental Attributes at fifty percent (50%) of the Contract Price.
Annual Excess Energy:	If, at any point in any Contract Year, the amount of Delivered Energy plus the amount of Deemed Delivered Energy (as defined below) above the Curtailment Cap (as defined below) exceeds one hundred and five percent (105%) of the Expected Energy for such Contract Year, the price to be paid for additional Delivered Energy or Deemed

	<p>Delivered Energy shall be equal to the lesser of (a) the Delivery Point LMP for the Day Ahead Market for the applicable Settlement Interval or (b) fifty percent (50%) of the Contract Price, but not less than \$0.00/MWh.</p> <p>If, at any point in any Contract Year, the amount of Delivered Energy plus the amount of Deemed Delivered Energy above the Curtailment Cap exceeds one hundred and fifteen percent (115%) of the Expected Energy for such Contract Year, no payment shall be owed by Buyer for any additional Delivered Energy or Deemed Delivered Energy.</p>
Excess Energy:	<p>If, during any Settlement Interval, the Delivered Energy is greater than the Guaranteed Capacity times the number of hours in the Settlement Interval ("<u>Excess Energy</u>"), then the price paid by Buyer for the Excess Energy shall be Zero dollars (\$0). If the real-time locational marginal price (as defined by the CAISO) at the Delivery Point is negative for a settlement interval with Excess Energy, Seller shall pay Buyer an amount equal to the product of (i) the absolute value of the Delivery Point LMP, and (ii) Excess Energy.</p>
Guaranteed Energy Production:	<p>Seller shall deliver to Buyer no less than the Guaranteed Energy Production (as defined below) in each two (2) consecutive Contract Year period during the Delivery Term ("<u>Performance Measurement Period</u>"). "<u>Guaranteed Energy Production</u>" means an amount of Adjusted Energy Production (as defined below), as measured in MWh, equal to or greater than ninety percent (90%) of the total aggregate Expected Energy for the applicable Performance Measurement Period.</p> <p>The Adjusted Energy Production will be used for purposes of determining whether Seller has achieved the Guaranteed Energy Production. The "<u>Adjusted Energy Production</u>" equals the Delivered Energy for the applicable Performance Measurement Period, plus (a) any Deemed Delivered Energy and (b) Energy in the amount it could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of Force Majeure Events and Curtailment Periods.</p> <p>If Seller fails to achieve the Guaranteed Energy Production amount in any Performance Measurement Period, Seller shall pay Buyer liquidated damages equal to (i) the difference between the Guaranteed Energy Production and the Adjusted Energy Production, multiplied by (ii) difference between (A) the replacement price for Portfolio Content Category 1 renewable energy and RECs of the same vintage,</p>

	delivery profile, and resource and (B) the Contract Price. No payment shall be due if the calculation yields a negative number.
Performance Guarantee:	<p>The occurrence of any of the following shall constitute an Event of Default:</p> <ol style="list-style-type: none"> (1) if, beginning in the second Contract Year, the Adjusted Energy Production amount in a Contract Year is not at least sixty-five percent (65%) of the Expected Energy amount in that Contract Year; or (2) if, in each of any two (2) consecutive Contract Years during the Delivery Term, the Adjusted Energy Production amount is not at least eighty percent (80%) of the Expected Energy amount in each Contract Year.
Curtailment:	<p>In the event the Facility is curtailed due to a Force Majeure Event, by the CAISO or the transmission owner, or for any reason other than Buyer's sole action or inaction, Seller shall not be liable for failure to deliver such curtailed energy and Buyer shall not be obligated to pay for such curtailed energy.</p> <p>Buyer shall have the right to order Seller to curtail deliveries of Delivered Energy, provided that Buyer shall pay Seller for all Deemed Delivered Energy associated with such Buyer-directed curtailments in excess of the Curtailment Cap at the Contract Price, subject to the Annual Excess Energy provisions.</p> <p><u>"Curtailment Cap"</u> is the quantity per Contract Year, in MWh, equal to fifty (50) hours multiplied by the Installed Capacity.</p> <p><u>"Deemed Delivered Energy"</u> means the amount of Energy expressed in MWh that the Facility would have produced and delivered to the Delivery Point, but that is not produced by the Facility due to a Buyer Curtailment Order or Buyer Bid Curtailment.</p>
Operations and Maintenance:	<p>Seller shall not during the months of June through September, inclusive, schedule any non-emergency maintenance that reduces the Delivered Energy by more than ten percent (10%), unless (i) such outage is required to avoid damage to the Facility, (ii) such maintenance is necessary to maintain equipment warranties and cannot be scheduled outside the months of June through September, (iii) such outage is required in accordance with prudent electrical practices, or (iv) the Parties agree otherwise in writing.</p>
REC Tracking	<p>Seller shall transfer RECs associated with Delivered Energy for each month via WREGIS pursuant to the timelines in WREGIS Operating</p>

System:	Rules. Each party shall be responsible for setting up an account with WREGIS.
Resource Adequacy Failure:	<p>The Parties acknowledge and agree that if Seller has failed to obtain Full Capacity Deliverability Status or secured interconnection and transmission service to an CAISO Intertie for the Facility in the amount equal to the Guaranteed RA Amount by COD, or if Seller otherwise fails to provide the Guaranteed RA Amount of Capacity Attributes in any Showing Month beginning with the Showing Month that contains the COD, then Seller shall pay to Buyer the RA Deficiency Amount for each RA Shortfall Month as liquidated damages due to Buyer, and as Buyer's sole remedy, for the Capacity Attributes that Seller failed to convey to Buyer.</p> <p><u>RA Deficiency Amount Calculation.</u> For each RA Shortfall Month, Seller shall pay to Buyer an amount (the "RA Deficiency Amount") equal to the product of the difference (such difference, the "RA Shortfall"), expressed in kW, of (i) Guaranteed RA Amount, minus (ii) the lowest amount (in kW) eligible to be included as System RA in Buyer's members Supply Plans by both the CPUC and CAISO for such month, multiplied by the larger of (a) \$10.00/kW-mo., or (b) the CPM Soft Offer Cap and the RA Penalty; <i>provided</i> that Seller may, as an alternative to paying RA Deficiency Amounts, provide Replacement RA up to the RA Shortfall, provided that any Replacement RA capacity is (i) communicated by Seller to Buyer with Replacement RA product information in a written notice substantially in the form attached to the PPA at least seventy-five (75) days before the applicable Showing Month, (ii) delivered to Buyer at least ten (10) Business Days before the CPUC and CAISO Showing Deadline for the Showing Month for the purpose of annual and monthly RA Plan reporting, and (iii) such Replacement RA capacity shall be required to comply with the requirements of D.21-06-035, only to the extent required for the Product purchased hereunder to be applied towards Buyer's compliance with its procurement obligations under D.21-06-035 as confirmed through a decision, resolution, publicly issued guidance document, letter from the CPUC Executive Director, or other communication of approval or confirmation mutually agreed to by the Parties.</p>
Shared Facilities:	The Facility shall be separately metered from any other generation or storage facilities and 100% of the Product available from the Facility shall be conveyed to Buyer under the PPA. Seller may share interconnection facilities with affiliates owning other generation or storage facilities, subject to commercially reasonable and customary

	shared facilities arrangements to be further described in the PPA; <i>provided</i> that such agreements (i) shall permit Seller to perform or satisfy, and shall not purport to limit, its obligations hereunder, including providing interconnection capacity for the Facility in an amount not less than the Guaranteed Capacity, and (ii) provide for separate metering and separate CAISO resource IDs for the Facility.
RPS Compliance:	Seller must ensure the Facility obtains CEC pre-certification prior to the COD, obtains CEC certification within 180 days of COD, and maintains such CEC certification during the Delivery Term. Seller shall ensure that the Product qualifies as Portfolio Content Category 1 throughout the Delivery Term. If a change of law occurs after execution of the PPA that impacts Facility's CEC certification or the Product's qualification as Portfolio Content Category 1, then Seller shall comply with such change of law as necessary to maintain the Facility CEC certification and Product eligibility described above.
Zero Onsite Emissions	If applicable, Seller must ensure the Facility does not produce any onsite emissions, and Seller shall provide to the Buyer adequate documentation thereof in a manner satisfactory to Buyer to demonstrate compliance with the FCR designation, regularly as required by the CPUC, but in no event less frequently than annually.
Commercial Operation Date:	<p>The "<u>Commercial Operation Date</u>" or "<u>COD</u>" shall be the later of (a) the Expected Commercial Operation Date or (b) the date on which Commercial Operation is achieved. "<u>Commercial Operation</u>" means the condition existing when Seller has fulfilled the following conditions precedent in the PPA and provided notice of same to Buyer, including providing a certificate from an independent engineer to Buyer with respect to subparts (i), (iii), (iv) and (v):</p> <ul style="list-style-type: none"> (i) Facility has met all Interconnection Agreement requirements or Agreements required to be capable of delivering energy within or to the CAISO Balancing Authority; (ii) For projects within the CAISO Balancing Authority, Seller has provided Buyer with a copy of written notice from the CAISO that the Facility has achieved Full Capacity Deliverability Status (as defined in the CAISO tariff). For projects outside of the CAISO Balancing Authority, Seller has reasonably demonstrated it has the ability to interconnect to the host transmission service provider and has secured a reservation of transmission to an intertie point with the CAISO;

	<ul style="list-style-type: none"> (iii) Seller has provided Buyer Maximum Import Capability (MIC) rights for full RA Product, if applicable; (iv) Commissioning of equipment has been completed in accordance with the manufacturer's specifications; (v) 95% of Guaranteed Capacity has been installed and commissioned; (vi) Facility has successfully completed all testing required by prudent utility practices or any requirement of law to operate the Facility; (vii) All applicable permits and government approvals required for the operation of the Facility have been obtained; (viii) Seller has obtained all real property rights necessary to operate the Facility; (ix) Security requirements for the Delivery Term have been met; and (x) Insurance requirements for the Facility have been met, with evidence provided in writing to Buyer. <p>Seller shall provide notice of expected COD to Buyer in writing no less than sixty (60) days in advance of such date. Seller shall notify Buyer in writing when Seller believes that it has provided the required documentation to Buyer and met the conditions for achieving COD. Buyer shall have five (5) Business Days to approve or reject in writing Seller's request for COD.</p>
Guaranteed Construction Start Date:	<p>The "<u>Guaranteed Construction Start Date</u>" means the following date [], subject to extensions on a day-for-day basis due to Force Majeure or delays caused by transmission provider (e.g., the CAISO) or transmission owner (e.g., PG&E) that are outside of the reasonable control of Seller. Such day-for-day extensions, including for Force Majeure, shall be no longer than one-hundred twenty (120) days on a cumulative basis. For clarity, these permitted extensions extend both the Guaranteed Construction Start Date and the Guaranteed COD simultaneously.</p> <p>If Seller fails to achieve Construction Start of the Facility by the Guaranteed Construction Start Date, Seller shall pay delay damages to Buyer, for each day of delay in achieving Construction Start, up to a maximum of ninety (90) days, in an amount of the Development Security divided by ninety (90) (the "<u>Daily Delay Damages</u>"). The Daily Delay Damages shall be refundable to Seller if, and only if,</p>

	<p>Seller achieves COD on or before the Guaranteed COD. Daily Delay Damages shall be paid to Buyer in advance monthly.</p> <p>Failure to achieve Guaranteed Construction Start within ninety (90) days of the Guaranteed Construction Start Date shall constitute an Event of Default, and Buyer shall have the right, in its sole discretion, to terminate the PPA and retain the Development Security.</p>
Guaranteed Commercial Operation Date:	<p>The “<u>Guaranteed Commercial Operation Date</u>” or “<u>Guaranteed COD</u>” means the following date [REDACTED], subject to extensions on a day-for-day basis due to Force Majeure or delays caused by transmission provider (e.g., the CAISO) or transmission owner (e.g., PG&E) that are outside of the reasonable control of Seller. Such day-for-day extensions, including for Force Majeure, shall be no longer than one-hundred twenty (120) days on a cumulative basis. For clarity, these permitted extensions extend both the Guaranteed Construction Start Date and the Guaranteed COD simultaneously.</p> <p>If the Seller does not achieve Commercial Operation of the Facility by the Guaranteed COD, Seller shall pay delay damages to the Buyer for each day of delay in achieving Commercial Operation, up to a maximum of sixty (60) days, in an amount of the Development Security divided by sixty (60) (the “<u>Commercial Operation Delay Damages</u>”). Commercial Operation Delay Damages shall be paid to Buyer in advance monthly. A prorated amount will be returned to Seller if the COD is achieved during the month for which Delay Damages were paid in advance.</p> <p>Failure to achieve COD within sixty (60) days of the Guaranteed COD shall constitute an Event of Default, and Buyer shall have the right, in its sole discretion, to terminate the PPA and retain the Development Security in addition to Delay Damages.</p>
Project Interconnection Point:	<p>The Facility shall interconnect to [e.g., XX substation] (the “<u>Interconnection Point</u>”). Seller shall be responsible for all costs of interconnecting the Facility to the Interconnection Point.</p>
Delivery Point:	<p>“<u>Delivery Point</u>” means [the Facility Pnode] on the CAISO grid.</p>
Deliverability:	<p>The Facility will have Full Capacity Deliverability Status by the Commercial Operation Date.</p>
Settlement Point:	<p>The “<u>Settlement Point</u>” shall be [REDACTED].</p> <p><i>(Note: Pricing is requested based both the pNode and NP-15 (TH_NP15_GEN-APND)).</i></p>

Site Control:	Seller shall maintain Site Control throughout the Delivery Term.
Permits and Approvals:	Seller shall obtain any and all permits and approvals, including without limitation, environmental clearance under the California Environmental Quality Act (“ CEQA ”) or other environmental law, from the local jurisdiction where the Project is or will be constructed. Buyer is simply purchasing power and does not intend to be the lead agency for the Project.
Facility Development Milestones:	<p>[date] – evidence of Site Control</p> <p>[date] - receipt of CEC Pre-certification</p> <p>[date] – financing milestone</p> <p>[date] – Seller’s receipt of Phase I and II interconnection study results for seller’s interconnection facilities</p> <p>[date] – execution of Interconnection Agreement</p> <p>[date] – financial close</p> <p>[date] – procurement of Major Equipment</p> <p>[date] – obtain federal and state discretionary permits</p> <p>[date] – Guaranteed Construction Start Date</p> <p>[date] – obtain Full Capacity Deliverability Status, if applicable</p> <p>[date] – initial synchronization</p> <p>[date] – CAISO commercial operation</p> <p>[date] – Expected Commercial Operation Date</p> <p>[date] – Guaranteed Commercial Operation Date</p> <p>[date] – Final CEC certification (within 180 days of COD)</p>
Scheduling Coordinator:	<p>[Buyer/Seller] shall provide the Scheduling Coordinator, or SC, (as defined by the CAISO) for the Facility.</p> <p>The party that provides the SC shall be financially responsible for such services and shall pay for all CAISO charges and retain all CAISO payments; <i>provided</i>, if Seller will be the SC, the \$/MWh Contract Price will be settled as the difference between the Contract Price and the DA LMP.</p> <p>Regardless of which party provides the SC, Seller shall assume all liability and reimburse Buyer for any and all costs or charges (i) incurred by Buyer because of Seller’s failure to perform, (ii) incurred by Buyer because of any outages for which notice has not been provided as required, (iii) associated with Resource Adequacy</p>

	<p>Capacity (as defined by the CAISO) from the Facility (including Non-Availability Charges (as defined by the CAISO)), if applicable or (iv) to the extent arising as a result of Seller's failure to comply with a timely Buyer Curtailment Order if such failure results in incremental costs to Buyer.</p> <p>Outage and curtailment notifications will be required by Buyer as well as access to Facility operational data.</p>
Forecasting and Scheduling:	<p>Seller shall provide annual, monthly, and day-ahead forecasts of available capacity and expected energy and provide real-time updates to forecasts of the same, as applicable. In the event Seller does not provide the required forecasts, and Buyer incurs a loss or penalty resulting from Seller's failure, Seller shall be responsible for a Forecasting Penalty. Seller shall comply with all applicable obligations of the CAISO Tariff, and shall fully cooperate with Buyer, the SC, and the CAISO, in providing all data, information, and authorizations required thereunder.</p>
Dispatch:	<p>Seller shall reduce the amount of Delivered Energy produced by the Facility by the amount and for the period of time set forth in any Curtailment Order, Buyer Curtailment Order, or notice received from the CAISO in respect of a Buyer Bid Curtailment, provided that Seller is not required to reduce such amount to the extent such reduction or any such Curtailment Order, Buyer Curtailment Order or notice in respect of a Buyer Bid Curtailment is inconsistent with the limitations of the Facility set out in the Operating Restrictions.</p> <p>Buyer shall have the right to order Seller to curtail deliveries of Delivered Energy through Buyer Curtailment Orders; <i>provided</i>, Buyer shall pay Seller for all Deemed Delivered Energy associated with a Buyer Curtailment Order that exceeds the Curtailment Cap.</p> <p>If Seller fails to comply with a Buyer Curtailment Order, Buyer Bid Curtailment or Curtailment Order, then, for each MWh of Delivered Energy that is delivered by the Facility to the Delivery Point in contradiction to the Buyer Curtailment Order, Buyer Bid Curtailment or Curtailment Order, Seller shall pay Buyer for each such MWh at an amount equal to the sum of (A) + (B) + (C), where: (A) is the amount, if any, paid to Seller by Buyer for delivery of such excess MWh and, (B) is the sum, for all Settlement Intervals with a Negative LMP during the Buyer Curtailment Period or Curtailment Period, of the absolute value of the product of such excess MWh in each Settlement Interval and the Negative LMP for such Settlement Interval, and (C) is any penalties assessed by the CAISO or other charges assessed by the CAISO resulting from Seller's failure to comply with the Buyer Curtailment Order, Buyer Bid Curtailment or Curtailment Order.</p>

Station Use:	Buyer shall not be responsible for Station Use. Expected Station Use: [XX] MWh per year.
Workforce Development:	Seller shall comply with all applicable federal, state and local laws, statutes, ordinances, rules, regulations and orders and decrees of any courts or administrative bodies or tribunals, including, without limitation, employment discrimination and prevailing wage laws. Although the Facility is not a public work as defined by California Labor Code section 1720, any construction work contracted by Seller in furtherance of this Agreement shall (i) comply with California prevailing wage provisions applicable to public works projects, including but not limited to those set forth in California Labor Code sections 1770, 1771, 1771.1, 1772, 1773, 1773.1, 1774, 1775, 1776, 1777.5, and 1777.6, as they may be amended from time to time (“ Prevailing Wage Requirement ”); and (ii) be conducted using a project labor agreement, community workforce agreement, work site agreement, collective bargaining agreement, or similar agreement providing for terms and conditions of employment with applicable labor organizations (“ Project Labor Agreement ”). Seller shall use best efforts to include the following language in any Project Labor Agreement: “Union members agree not to make any written or verbal statements about CC Power or its members that are disparaging, untrue or inaccurate.”
Prohibition Against Forced Labor:	Seller represents and warrants that it has not and will not knowingly utilize equipment or resources for the construction, operation or maintenance of the Facility that rely on work or services exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily (“ Forced Labor ”).
Local Workforce:	[If applicable, include % of workforce from Buyer’s service territory Seller will utilize]
Monthly Settlement and Invoice:	<p>Within ten (10) days after the end of each month of the Delivery Term, Seller shall send a detailed invoice to Buyer for the amount due for Product delivered during such month. The invoice shall include all information necessary to confirm the amount due.</p> <p>Payment for undisputed amounts shall be due to the applicable party thirty (30) days from the invoice date, with disputed payments subject to the PPA dispute process.</p>
Progress Reporting:	After execution of the PPA, Seller shall provide to Buyer a quarterly report until the earlier of Construction Start or one year prior to the Guaranteed Commercial Operation Date, followed by a monthly report until the COD that (a) describes the progress towards meeting the Facility Development Milestones; (b) identifies any missed

	<p>Facility Development Milestones, including the cause of the delay; and (c) provides a detailed description of Seller's corrective actions to achieve the missed Facility Development Milestones and all subsequent Facility Development Milestones by the Guaranteed Commercial Operation Date. If applicable, progress reporting shall also include reporting on small business activities.</p> <p>In the event Seller misses any Project Development Milestones and cannot reasonably demonstrate a plan for completing the Facility by the Guaranteed COD, Buyer shall have the right to terminate the PPA and retain the Development Security as damages, in addition to any other remedies it may have at law or equity.</p>
Credit Requirements:	<p>The Seller shall post security as follows:</p> <p><u>Development Security</u> – \$90/kW of Guaranteed Capacity</p> <p><u>Performance Security</u> – \$105/kW of Guaranteed Capacity</p> <p>To secure its obligations under the PPA, Seller shall deliver the Development Security to Buyer within thirty (30) days of the PPA Effective Date and shall deliver Performance Security to Buyer on or before the Commercial Operation Date. Development Security and Performance Security shall be in the form of cash or a Letter of Credit.</p> <p>Within five (5) Business Days following any draw by Buyer on the Development Security or the Performance Security, Seller shall replenish the amount drawn such that the security is restored to the applicable amount.</p>
Buyer Pass Through Liability Agreement	<p>Seller, Buyer and Participating CCAs will enter into a Buyer Pass Through Liability Agreement that provides:</p> <ol style="list-style-type: none"> 1) Seller may pursue Participating CCAs for their proportional share of Buyer's payment obligations. 2) Seller waives the ability to collect any Damage Payment or Termination Payment that Buyer may owe under the PPA. 3) Seller does not have recourse to a Participating CCA for another Participating CCA's payment obligations.
Participation Agreement	<p>Buyer and Participating CCAs will sign a Participation Agreement that:</p> <ol style="list-style-type: none"> 1) Sets forth the Participating CCAs and their proportional share of Buyer's payment obligations; 2) Requires each Participating CCA to step up to accept up to an additional 25% of its initial proportional share in the event another Participating CCA defaults; and

	3) Requires each Participating CCA to prepay to Buyer three (3) months of payments associated with their proportional share.
Compliance with Laws:	Seller shall comply with all federal, state and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals, including, without limitation those related to employment discrimination and prevailing wage, non-discrimination and non-preference; conflict of interest; environmentally preferable procurement; single serving bottled water; gifts; and disqualification of former employees.
Business Tax: ¹	The Seller shall obtain a City business tax certificate or exemption, if qualified, and will maintain such certificate or exemption for the Proposed Transaction term.
Assignment:	<p>Neither Party may assign the PPA without prior written consent of the other Party, which shall not be unreasonably withheld, delayed or conditioned; <i>provided</i>, Seller has the right to assign the PPA as collateral for any financing or refinancing of the Facility without the consent of Buyer.</p> <p>Any direct or indirect Change of Control of Seller (whether voluntary or by operation of law) shall be deemed an assignment and shall require the prior written consent of Buyer, which shall not be unreasonably withheld, delayed or conditioned.</p> <p>Seller shall pay Buyer's reasonable expenses, including attorneys' fees, incurred to provide consents, estoppels, or other required documentation in connection with Seller's financing for the Facility. Buyer shall have no obligation to provide any consent, or enter into any agreement, that materially and adversely affects any of Buyer's rights, benefits, risks or obligations under the PPA, or to modify such PPA.</p>
No Recourse to Members of Buyer: ²	Buyer is organized as a Joint Powers Authority in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.) and is a public entity separate from its constituent members. Except as set forth herein including the Buyer Pass Through Liability Agreement, Buyer will solely be responsible for all debts, obligations and liabilities accruing and arising out of this Confirmation. Seller will have no rights and will not make any claims, take any actions or assert any remedies against any of Buyer's constituent members, or the officers, directors, advisors, contractors,

¹ This language is applicable if San Jose is the Buyer.

² This language is applicable if the Buyer is a JPA.

	consultants or employees of Buyer or Buyer's constituent members, in connection with this Confirmation.
Appropriation of Funds:³	Buyer is a municipal corporation and is precluded under the California State Constitution and applicable law from entering into obligations that financially bind future governing bodies, and, therefore, nothing in the PPA shall constitute an obligation of future legislative bodies of the City to appropriate funds for purposes of the PPA; provided, however, that (a) Buyer has created and set aside the Designated Fund for payment of its obligations under the PPA and (b) subject to the requirements and limitations of applicable law and taking into account other available money specifically authorized by the San José City Council and allocated and appropriated to the San José Clean Energy's obligations, Buyer agrees to establish San José Clean Energy rates and charges that are sufficient to maintain revenues in the Special Fund necessary to pay its obligations under the PPA and all of Buyer's payment obligations under its other contracts for the purchase of energy for San José Clean Energy. Buyer's payment obligations under the PPA are special limited obligations of Buyer payable solely from the Special Fund and are not a charge upon the revenues or general fund of the City of San José or upon any non- San José Clean Energy moneys or other property of the Community Energy Department or the City of San José. Buyer shall provide Seller with reasonable access to account balance information with respect to the San José Clean Energy Designated Fund during the term of the PPA.
Designated Fund and Limited Obligation:⁴	<u>Designated Fund.</u> Buyer's payment obligations under this Agreement shall be paid from a Department of Community Energy designated fund ("Designated Fund") that shall be used solely for San José Clean Energy costs and expenses, including the obligations under this Agreement. Subject to the requirements and limitations of Applicable Law and taking into account other available money specifically authorized by the San José City Council and allocated and appropriated to the San José Clean Energy's obligations, the Buyer agrees to establish San José Clean Energy rates and charges that are sufficient to maintain revenues in the Designated Fund necessary to pay its obligations under this Agreement and all of Buyer's payment obligations under its other contracts for the purchase of energy for San José Clean Energy. Buyer shall provide Seller with reasonable access

³ This language is applicable if San Jose is the Buyer.

⁴ This language is applicable if San Jose is the Buyer.

	<p>to account balance information with respect to the San José Clean Energy Designated Fund during the Term.</p> <p><u>Limited Obligations.</u> Buyer’s payment obligations are special limited obligations of the Buyer payable solely from the Designated Fund. Buyer’s payment obligations under this Agreement are not a charge upon the revenues or general fund of the City of San José or upon any non- San José Clean Energy moneys or other property of the Community Energy Department or the City of San José. Buyer is organized as a Joint Powers Authority in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.) and is a public entity separate from its constituent members. Except as set forth herein, Buyer will solely be responsible for all debts, obligations and liabilities accruing and arising out of this Confirmation. Seller will have no rights and will not make any claims, take any actions or assert any remedies against any of Buyer’s constituent members, or the officers, directors, advisors, contractors, consultants or employees of Buyer or Buyer’s constituent members, in connection with this Confirmation.</p>
Force Majeure:	<p><u>“Force Majeure Event”</u> means any act or event that delays or prevents a Party from timely performing all or a portion of its obligations under this Agreement or from complying with all or a portion of the conditions under this Agreement if such act or event, despite the exercise of reasonable efforts, cannot be avoided by and is beyond the reasonable control (whether direct or indirect) of and without the fault or negligence of the Party relying thereon as justification for such delay, nonperformance, or noncompliance.</p> <p>Without limiting the generality of the foregoing, so long as the following events, despite the exercise of reasonable efforts, cannot be avoided by, and are beyond the reasonable control (whether direct or indirect) of and without the fault or negligence of the Party relying thereon as justification for such delay, nonperformance or noncompliance, a Force Majeure Event may include an act of God or the elements, such as flooding, lightning, hurricanes, tornadoes, or ice storms; explosion; fire; volcanic eruption; flood; epidemic; landslide; mudslide; sabotage; terrorism; earthquake; or other cataclysmic events; an act of public enemy; war; blockade; civil insurrection; riot; civil disturbance; or strikes or other labor difficulties caused or suffered by a Party or any third party except as set forth below.</p> <p>Notwithstanding the foregoing, the term “Force Majeure Event” does not include (i) economic conditions that render a Party’s performance of this Agreement at the Contract Price unprofitable or otherwise uneconomic (including Buyer’s ability to buy Energy at a lower price, or Seller’s ability to sell Energy at a higher price, than the Contract</p>

	<p>Price); (ii) Seller's inability to obtain permits or approvals of any type for the construction, operation, or maintenance of the Facility; (iii) the inability of a Party to make payments when due under this Agreement, unless the cause of such inability is an event that would otherwise constitute a Force Majeure Event as described above that disables physical or electronic facilities necessary to transfer funds to the payee Party; (iv) a Curtailment Period, except to the extent such Curtailment Period is caused by a Force Majeure Event; (v) Seller's inability to obtain sufficient labor, equipment, materials, or other resources to build or operate the Facility except to the extent such inability is caused by a Force Majeure Event; (vi) a strike, work stoppage or labor dispute limited only to any one or more of Seller, Seller's Affiliates, Seller's contractors, their subcontractors thereof or any other third party employed by Seller to work on the Facility; (vii) any equipment failure except if such equipment failure is caused by a Force Majeure Event; or (viii) events otherwise constituting a Force Majeure Event that prevent Seller from achieving Construction Start or Commercial Operation of the Facility, except to the extent expressly permitted as an extension under the PPA.</p>
<p>Other Standard Contract Terms to be included in the PPA:</p>	<p><u>Event of Default:</u> In addition to the Events of Default already discussed herein, Events of Default shall include, but not be limited to, failure to pay any amounts when due, breach of representations and warranties, failure to perform covenants and material obligations in the PPA, bankruptcy, and assignment not permitted by the PPA.</p> <p><u>Indemnification:</u> Seller to indemnify Buyer for third party claims arising from Seller's negligence, willful misconduct, or breach of the PPA.</p> <p><u>Governing Law:</u> State of California</p> <p><u>Venue:</u> As mutually agreed or if no agreement is possible the City and County of San Francisco</p>
<p>Definitions:</p>	<p>The following terms, when used herein with initial capitalization, shall have the meanings set forth below:</p> <p><u>"CAISO"</u> means the California Independent System Operator.</p> <p><u>"CAISO Tariff"</u> means the California Independent System Operator Corporation Agreement and Tariff, Business Practice Manuals (BPMs), and Operating Procedures, including the rules, protocols, procedures and standards attached thereto, as the same may be amended or modified from time-to-time and approved by FERC.</p> <p><u>"CEC"</u> means the California Energy Commission, or any successor agency performing similar statutory functions.</p>

	<p><u>“CEQA”</u> means the California Environmental Quality Act.</p> <p><u>“Delivery Term”</u> shall mean the period of Contract Years beginning on the Commercial Operation Date.</p> <p><u>“Full Capacity Deliverability Status”</u> has the meaning set forth in the CAISO Tariff.</p> <p><u>“Letter(s) of Credit”</u> means one or more irrevocable, standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch with such bank (a) having a credit rating of at least A- with an outlook designation of “stable” from S&P or A3 with an outlook designation of “stable” from Moody’s or (b) being reasonably acceptable to Buyer.</p> <p><u>“MW”</u> means megawatts in alternating current, unless expressly stated in terms of direct current.</p> <p><u>“MWh”</u> means megawatt-hour measured in alternating current, unless expressly stated in terms of direct current</p>
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2. **Neither Party Obligated to Enter Into Proposed Transaction.** This Term Sheet is intended to provide an overview of the Proposed Transaction and is not intended to constitute a binding contract or an offer to enter into a PPA with respect to the Proposed Transaction and does not obligate either Party to enter into the Proposed Transaction or execute any agreement, including the PPA, in connection with the Proposed Transaction. Neither Party will be deemed to have agreed to the PPA and will not be bound by any term thereof, unless and until authorized representatives of both Parties execute final definitive documents, enforceable in accordance with their terms.
3. **Other Agreements.** In connection with this Term Sheet, Seller shall execute that certain Exclusivity Agreement (**“Exclusivity Agreement”**) with Buyer and provide a Shortlist Deposit (as defined in such agreement) of \$3 per KW to Buyer within three (3) Business Days after execution of the Exclusivity Agreement. The Shortlist Deposit will be returned in accordance with, and subject to, the terms of the Exclusivity Agreement.
4. **Expenses.** Each Party will pay its own costs and expenses (whether internal or out-of-pocket, and whether for legal, financial, technical, or other consultants, or other purposes) in connection with the Term Sheet and any definitive agreements.
5. **Termination.** This Term Sheet will terminate upon the earlier of (a) execution of the PPA or (b) expiration of the Exclusivity Period (as defined in the Exclusivity Agreement), as such Exclusivity Period may be extended by the Parties in accordance with the Exclusivity Agreement.
6. **Governing Law.** This Term Sheet is governed by, and construed in accordance with, the laws of the State of California.

7. **No Consequential Damages.** IN NO EVENT SHALL EITHER PARTY, ITS AFFILIATES AND/OR REPRESENTATIVES BE LIABLE FOR ANY LOST OR PROSPECTIVE PROFITS OR ANY OTHER CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE, INDIRECT OR EXEMPLARY DAMAGES UNDER OR IN RESPECT TO THIS TERM SHEET.

Appendix F

Risk Scenario

Renewable Net Short Calculations - 2022 RPS Procurement Plans

LSE Name:	Sonoma Clean Power Authority	<div></div> Input required	<div></div> No input required	<div></div> Hard-coded
Date Filed:	1/18/2023			

Variable	Calculation	Item	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2017-2020	2021 Actual	2022 Forecast	2023 Forecast	2024 Forecast	2021-2024	2025 Forecast	2026 Forecast	2027 Forecast	2025-2027	2028 Forecast	2029 Forecast	2030 Forecast	2028-2030	2031 Forecast	2032 Forecast
		Forecast Year					CP 3		1	2	3	CP 4	4	5	6	CP 5	7	8	9	CP 6	10	11
Annual RPS Requirement																						
A		Total Retail Sales (MWh)	2,380,562	2,409,841	2,360,421	2,343,097	9,493,922	2,271,341	2,220,507	2,227,689	2,226,472	8,946,009	2,218,755	2,226,913	2,241,288	6,686,956	2,261,774	2,308,994	2,325,439	6,896,207	2,367,407	2,425,146
B		RPS Procurement Quantity Requirement (%)	27.0%	29.0%	31.0%	33.0%	30.0%	35.8%	38.5%	41.3%	44.0%	39.9%	46.7%	49.3%	52.0%	49.3%	54.7%	57.3%	60.0%	57.4%	60.0%	60.0%
C	A*B	Gross RPS Procurement Quantity Requirement (MWh)	642,752	698,854	731,731	773,222	2,846,558.4	812,004	854,895	918,922	979,648	3,565,469.0	1,035,493	1,098,536	1,165,470	3,299,498.9	1,236,512	1,323,746	1,395,263	3,955,521.5	1,420,444	1,455,088
D		Voluntary Margin of Over-procurement (MWh)	433,752	481,358	466,053	389,609	1,770,773	355,571	308,691	193,715	132,460	990,436	73,060	49,114	55,420	177,594	58,919	62,765	67,603	189,287	72,117	77,432
E	C+D	Net RPS Procurement Need (MWh)	1,076,504	1,180,212	1,197,784	1,162,831	4,617,331	1,167,575	1,163,586	1,112,637	1,112,108	4,555,905	1,108,553	1,147,650	1,220,890	3,477,093	1,295,431	1,386,511	1,462,866	4,144,809	1,492,561	1,532,520
RPS-Eligible Procurement																						
Fa		Risk-Adjusted RECs from Online Generation (MWh)	1,076,504	1,180,212	1,222,784	1,254,331	4,733,831	1,167,575	1,163,586	955,784	903,758	4,190,703	746,016	739,890	297,130	1,783,036	292,648	289,916	286,984	869,548	288,313	287,882
Faa		Forecast Failure Rate for Online Generation (%)					#DIV/0!					#DIV/0!				#DIV/0!				#DIV/0!		
Fb		Risk-Adjusted RECs from RPS Facilities in Development (MWh)					-			8,234	111,484	119,718	261,640	300,260	314,514	876,414	313,853	312,485	311,474	937,812	310,463	309,808
Fbb		Forecast Failure Rate for RPS Facilities in Development (%)					#DIV/0!			90.0%	49.7%	69.8%	9.2%	10.2%	10.5%	10.0%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%
Fc		Pre-Approved Generic RECs (MWh)					-					-				-				-		
Fd		Executed REC Sales (MWh)			25,000	91,500	116,500					-				-				-		
F	Fa+Fb+Fc-Fd	Total RPS Eligible Procurement (MWh)	1,076,504	1,180,212	1,197,784	1,162,831	4,617,331	1,167,575	1,163,586	964,018	1,015,242	4,310,421	1,007,656	1,040,150	611,644	2,659,450	606,501	602,401	598,458	1,807,360	598,776	597,690
F0		Category 0 RECs					-					-				-				-		
F1		Category 1 RECs	534,437	803,313	781,022	774,467	2,893,239	1,167,575	1,163,586	964,018	1,015,242	4,310,421	1,007,656	1,040,150	611,644	2,659,450	606,501	602,401	598,458	1,807,360	598,776	597,690
F2		Category 2 RECs	542,067	376,899	416,762	388,364	1,724,092					-				-				-		
F3		Category 3 RECs					-					-				-				-		
Gross RPS Position (Physical Net Short)																						
Ga	F-E	Annual Gross RPS Position (MWh)	-	-	-	-	-	-	-	(148,619)	(96,866)	(245,484)	(100,897)	(107,500)	(609,246)	(817,643)	(688,930)	(784,110)	(864,408)	(2,337,449)	(893,785)	(934,830)
Gb	F/A	Annual Gross RPS Position (%)	45.2%	49.0%	50.7%	49.6%	49%	51.4%	52%	43%	46%	48.2%	45.4%	46.7%	27.3%	39.8%	27%	26%	26%	26.2%	25%	25%
Application of Bank																						
Ha	J-Hc (from previous CP)	Existing Banked RECs above the PQR					-	-				-	-			-	-			-	-	
Hb		RECs above the PQR added to Bank					-					-				-				-		
Hc		Non-bankable RECs above the PQR					-					-				-				-		
H	Ha+Hb	Gross Balance of RECs above the PQR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ia		Planned Application of RECs above the PQR towards RPS Compliance					-					-				-				-		
Ib		Planned Sales of RECs above the PQR					-					-				-				-		
J	H-Ia-Ib	Net Balance of RECs above the PQR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J0		Category 0 RECs					-					-				-				-		
J1		Category 1 RECs					-					-				-				-		
J2		Category 2 RECs					-					-				-				-		
Expiring Contracts																						
K		RECs from Expiring RPS Contracts (MWh)					-		403,268		150,439	553,707		438,000		438,000				-		
Net RPS Position (Optimized Net Short)																						
La	Ga+Ia-Ib-Hc	Annual Net RPS Position after Bank Optimization (MWh)	-	-	-	-	-	-	-	(148,619)	(96,866)	(245,484)	(100,897)	(107,500)	(609,246)	(817,643)	(688,930)	(784,110)	(864,408)	(2,337,449)	(893,785)	(934,830)
Lb	(F+Ia-Ib-Hc)/A	Annual Net RPS Position after Bank Optimization (%)	0.452205845	0.489746736	0.507445053	0.496279448	0.486346018	0.514046548	0.524018163	0.432743529	0.455986871	0.481826142	0.454153793	0.467081561	0.272898441	0.397707118	0.268152786	0.260893272	0.257352698	0.2620803	0.252924825	0.246455265

Note: All values are to be input in MWhs

Appendix G

Checklist and Officer Verification

Final 2022 RPS Procurement Plan Checklist

Retail Seller Name: Sonoma Clean Power Authority	YES/NO	NOTES
I. Major Changes to RPS Plan	YES	
II. Executive Summary	YES	
III. Summary of Legislation Compliance	YES	
IV. Assessment of RPS Portfolio Supplies and Demand	YES	
IV.A.1 Voluntary Market Offer	YES	
IV.A.1 Voluntary Allocation and Market Offer (VAMO)	YES	
IV.A2 Portfolio Optimization	YES	
IV.B Responsiveness to Local and Regional Policies	YES	
IV.B.1 Long-term Procurement	YES	
IV.C Portfolio Diversity and Reliability	YES	
IV.D Lessons Learned	YES	
V. Project Development Status Update	YES	
VI. Potential Compliance Delays	YES	
VII. Risk Assessment	YES	
VIII. Renewable Net Short Calculation	YES	
IX. Minimum Margin of Procurement (MMoP)	YES	
IX.A MMoP Methodology and Inputs	YES	
IX.B MMoP Scenarios	YES	
X. Bid Solicitation Protocol	YES	
X.A Solicitation Protocols for Renewable Sales	YES	
X.B Bid Selection Protocols	YES	
X.C LCBF Criteria	YES	
XI. Safety Considerations	YES	
XII. Consideration of Price Adjustments Mechanisms	YES	
XIII. Curtailment Frequency, Forecasting, Costs	YES	
XIV. Cost Quantification	YES	
XV. Coordination with the IRP Proceeding	YES	
Appendix A: Redlined Version of the Draft 2022 RPS Plan	YES	

Officer Verification

I am an officer of the reporting organization herein and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, I believe them to be true. The spreadsheet templates used within this filing have not been altered from the version issued or approved by Energy Division.

Executed on December 19, 2023, at Santa Rosa, CA

A handwritten signature in black ink, appearing to read "Geof Syphers", is written over a horizontal line.

Geof Syphers
Chief Executive Officer
Sonoma Clean Power Authority
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