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 Portfolio Standard Program.	Rulemaking 18-07-003

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FINAL 2022 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLAN OF RANCHO MIRAGE ENERGY AUTHORITY

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In accordance with the California Public Utilities Commission's ("Commission") March 30, 2021 *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 the *Decision on 2022 RPS Procurement Plans* ("D.22-12-030"), the City of Rancho Mirage, doing business as Rancho Mirage Energy Authority ("RMEA" or "the City"), hereby submits this Final 2022 Renewables Portfolio Standard Procurement Plan ("RPS Procurement Plan"). As directed by the ACR, this RPS Procurement Plan includes responses for the issues expressed in sections 6.1-6.16 of the ACR.

RMEA 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"). RMEA is nevertheless voluntarily responding to these ACR sections in the interest of transparency and to collaborate with the Commission. The submission of this RPS Procurement Plan pursuant to the ACR, however, should not be construed as a waiver of the right to assert that components of Senate Bill ("SB") 350 or Commission decisions and rulings on RPS Procurement Plan submittals, do not extend to CCAs, and RMEA reserves the right to challenge any such assertion of jurisdiction over these matters.

As indicated in RMEA's previously submitted RPS Procurement Plans, the Commission should consider the relatively small size and related administrative structure under which RMEA operates its CCA program. In particular, RMEA operates its CCA program under a shared service model, which means RMEA has joined together with other, regionally located CCA programs to promote administrative efficiencies by outsourcing many highly specialized services typically required for successful CCA administration and operation. The California Choice Energy Authority, or CalChoice, is a joint powers authority ("JPA"), the members of which include the cities of Lancaster and San Jacinto. CalChoice was formed to help cities in Southern California Edison's ("SCE") service territory evaluate, implement, and operate CCA enterprises without having to share or cede (by virtue of proportionate influence during decision making processes) control that could result from participation in larger, multi-jurisdictional JPAs or without independently taking on the significant financial liabilities (*e.g.*, start-up costs, staffing, and ongoing administration) of a single entity CCA. CalChoice is the organization selected by RMEA to provide requisite services and inter-agency coordination amongst regionally located, single-city CCA programs.

There are currently eight (8) Southern California communities that are being supported under independent administrative services agreements with CalChoice, including RMEA. These communities include the Town of Apple Valley (doing business as Apple Valley Choice Energy, or "AVCE"; successful CCA launch in April 2017); and the cities of Lancaster (doing business as "Lancaster Energy": successful CCA launch in May 2015), Palmdale (doing business as Energy for Palmdale's Independent Choice, or "EPIC"; successful CCA launch in October 2022), Pico Rivera (doing business as Pico Rivera Innovative Municipal Energy, or "PRIME" successful CCA launch in September 2017), Pomona (doing business as Pomona Clean Energy;

successful launch in October 2020), Rancho Mirage (doing business as the Rancho Mirage Energy Authority; successful CCA launch in May 2018), San Jacinto (doing business as San Jacinto Power; successful CCA launch in April 2018) and Santa Barbara (doing business as Santa Barbara Clean Energy; successful CCA launch in October 2021). The city of Baldwin Park (formerly doing business as Baldwin Park Resident Owned Utility District, or "BPROUD," which successfully commenced CCA service in October 2020, then later decided to terminate program operations through an orderly process that resulted in the return of its customers to SCE in March 2022) was previously supported by CalChoice, but this services agreement expired in mid-2022, so CalChoice is no longer involved in supporting any remaining responsibilities related to Baldwin Park's previously operating CCA program. CalChoice's team of experienced CCA practitioners works in cooperation with City and Town leadership to administer CCA operations. Responsibilities for CCA program management are divided, but closely coordinated, amongst these constituents. For example, CalChoice's team provides key administrative support and advisory services, including the completion of work related to resource planning and procurement (*e.g.*, load forecasting, solicitation administration, contract negotiation support and, specifically related to this RPS Procurement Plan, the administration of functions required to plan for and procure requisite RPS-eligible renewable energy supply). City and Town staff, including elected leadership, take lead roles in reviewing and approving electric generation rates, adopting resource planning policies and creating, implementing and administering locally focused energy programs and, in certain cases, locally situated energy infrastructure projects that support CCA program operations and the interests of participating customers.

The CalChoice service model has not only proven to be highly desirable for many smaller Southern California communities but also critically important in preserving the community-specific oversight and decision-making autonomy that would not necessarily be afforded under a larger, multi-community joint powers agency. Key decisions of each CalChoice-supported community, including rate setting, retail supply portfolio composition, disposition of financial reserves, and administration of complementary programs, are independently addressed by the respective governing councils of each community and administered by staff with supporting input from CalChoice's experienced team. The CalChoice model preserves the autonomy of each participating community by applying a "one size does not fit all" support framework, which allows participating communities to establish and pursue objectives and key parameters that are directly responsive to the unique constituents and interests within their respective communities.

In terms of CalChoice's role in supporting the renewable energy planning and procurement functions of each participating community, CalChoice coordinates directly with each community to identify required levels of renewable energy procurement (as specified under California's RPS Program) as well as any above-RPS procurement targets voluntarily adopted by each participating community (that may be related to specific retail service offerings that provide renewable energy deliveries in excess of statewide mandates). Once such targets are established, CalChoice supports discussions focused on future renewable energy planning trajectories, recommended planning reserve margins, necessary long-term contracting requirements, upcoming solicitation administration, and ongoing monitoring of supplier/developer performance to promote alignment between actual and projected renewable energy supply, including the completion of any portfolio balancing activities that may be necessary to close incremental open positions or dispose of unnecessary excess/length. Such discussions between CalChoice and

participating communities remain ongoing with opportunities to adjust desired renewable energy parameters over time. The information provided by participating communities is compiled by CalChoice and aggregated, if/when appropriate, to facilitate administratively coordinated procurement efforts. Due to the relatively small size of CalChoice's participating communities, meaningful administrative efficiencies have been achieved through joint solicitation administration. In particular, otherwise redundant costs and procedural elements, including solicitation administration, counterparty coordination, contract negotiations, and project development milestone tracking, are substantially minimized by coordinating/centralizing such functions/roles through CalChoice. These desirable outcomes are critically important to CalChoice's participating communities by reducing administrative complexities and staffing requirements that would otherwise need to be addressed by each participating community while simultaneously reducing costs that would otherwise burden the financial performance of each CCA program – such an approach allows participating communities to leverage the relatively limited specialized expertise and technical acumen that are needed to successfully administer CCA enterprises without having to independently identify and hire such staff, which could be time consuming and very costly.

Subject to pertinent renewable energy mandates imposed under California's RPS Program, participation in CalChoice's renewable energy procurement processes (meaning solicitations and related contracting efforts) is voluntary, and member communities may independently determine whether or not to participate based on the status of each community in progressing towards such statewide mandates and, if applicable, desired levels of renewable energy procurement in excess of such mandates. CalChoice does not act on behalf of its participating communities without prior direction/authorization, and any contracting processes

resulting from CalChoice-administered solicitation efforts are subject to approval by the governing councils of participating communities (or predetermined, explicitly identified delegated authorities, which may allow senior city staff, such as a City Manager, to approve/execute certain contracts).

When contemplating resource planning and procurement efforts that will be undertaken by California retail sellers, including the preparation of requisite RPS Procurement Plans, RMEA encourages the Commission to consider the stark, undeniable differences between the relatively small communities supported by CalChoice and the state's much larger Investor-Owned Utilities ("IOUs"). The disparate scope and magnitude of procurement responsibilities that must be undertaken by an IOU, relative to a small CCA, necessitate different approaches and organizational support. In the case of an IOU, there will be an entire procurement department available to support requisite efforts, including a team of attorneys, analysts, and other staff members – the level of procurement activities undertaken by an IOU seems to necessitate such an approach. In the case of a small CCA, however, there may only be a few renewable energy supply contracts needed to satisfy pertinent procurement mandates at any point in time – in consideration of the work required to support such efforts, a small CCA would not necessarily want or need to hire several staff members, invest in costly systems or perform elaborate analyses, as the scope of responsibilities that must be undertaken to support RPS compliance activities is relatively narrow in comparison to an IOU. RMEA encourages the Commission to consider these differences when reviewing/evaluating the respective RPS Procurement Plans submitted by California retail sellers – differing levels of detail, procedure, complexity, and coordination are likely very appropriate within the planning documents submitted by small, medium, and large organizations; and where the Commission may be inclined to identify

informational deficiencies in certain areas (based on inevitable differences between content provided in the RPS Procurement Plans of California's IOUs and smaller CCA programs), RMEA encourages the Commission to consider the inappropriateness of a "one size fits most/all" approach in managing widely varying RPS planning and procurement obligations. While there may be some commonalities amongst planning and procurement practices reflected in the various RPS Procurement Plans submitted through this process, it seems reasonable to assume that noteworthy differences will be prevalent. This noted, the relatively close-knit community and ongoing coordination amongst CCA organizations (though associations like CalChoice and the California Community Choice Association, or "CalCCA") has resulted in the sharing of many best practices, which may contribute to commonalities in various resource planning and procedural elements described in RPS procurement planning documents. The extent to which such commonalities exist may change over time, but the Commission should be aware of the potential for similarities amongst the plans of CCA organizations, which regularly coordinate during the development of regulatory filings/submittals. In the case of this RPS procurement planning process, broad coordination has been particularly prevalent.

With regard to RMEA, its participation in CalChoice's shared service model will result in inevitable similarities when comparing the RPS Procurement Plans submitted by each participating community – due to the coordinated approach undertaken by CalChoice, key planning elements and procurement processes may, in fact, be identically described in each participant's respective RPS Procurement Plan. RMEA respectfully requests that the Commission consider this inevitability while reviewing its RPS Procurement Plan – the similarities between planning documents submitted by CalChoice's participating communities are reflective of thoughtful coordination, a commitment to fulfilling applicable compliance

mandates reflected in California's RPS Program, an interest in promoting administrative efficiency, and an effort to suppress planning and procurement costs that would be much higher if each participating community independently managed such efforts. To the extent that CalChoice remains successful in promoting inter-agency coordination and efficiencies, participating customers are expected to benefit via retail rates that pass through the benefits of such efforts.

The Commission is also encouraged to consider the differing operational stages of reporting load serving entities ("LSEs"). Certain direction and guidance provided by the Commission seems to suggest that each element of the RPS planning process should be universally applicable across all LSEs, regardless of pertinent operational status, and that is not the case. For example, it is likely inappropriate and unhelpful for a newer CCA organization to prepare a ten-year negative price forecast or curtailment analysis when the nature of existing contractual commitments would render such information irrelevant and unhelpful – given the heightened attention and related information focused on changing market conditions, increased incidents of negative pricing and related energy curtailment, all LSEs are aware, to some extent, of these potential risk factors, but that does not mean a related forecasting effort or other form of analysis would provide useful information to each LSE. For example, a generalized ten-year negative price forecast or curtailment analysis would have little meaning for a new LSE without existing contractual commitments or if its contractual commitments did not expose the buyer to negative price risk (due to the application of settlement mechanisms or the specification of fixed delivery quantities). Similarly, it would not make sense for an LSE to prepare forward curtailment estimates if its renewable contract portfolio primarily included fixed volume supply commitments or did not allow discretionary curtailment via terms and conditions reflected in

such contracts. Again, RMEA encourages the Commission to consider the appropriateness of universally requiring certain information within this planning process when such information may not be relevant or useful to the reporting entity (or other parties that may choose to review such information) – certain sections of these plans should be marked as "if necessary" or "if applicable" without the assumption that all LSEs should be comprehensively responsive in addressing such topics; RMEA further encourages the Commission to consider this approach in future rulings/directives related to this RPS procurement planning process.

With regard to understanding the consequences of compliance shortfalls, the communities supported by CalChoice have been advised of both direct (*e.g.*, financial penalties and findings of non-compliance) and indirect (*e.g.*, reputational damage that might accrue to participating communities or CCA organizations, generally) impacts associated with such deficiencies and have chosen to pursue risk mitigation measures that are considerate of each participating community's aversion to such risks as well as the related administrative complexity, cost and rigor that were deemed appropriate to achieve the desired level of mitigation. CalChoice members have also been advised of, and clearly understand, the financial penalty mechanisms in place under California's RPS program – while it seems unlikely that a compliance shortfall will occur, there is an appreciation of prospective financial consequences, namely the $50 per megawatt hour penalty applying to such shortfalls. This noted, RMEA observes that the RPS Program does not require a "compliance at any cost" approach, as the financial penalty structure is intended to address such issues in the unlikely event that they occur.

In considering its evolving informational needs, the City has engaged CalChoice to prepare a more robust risk assessment, as reflected in this RPS Procurement Plan. Details related to this risk assessment are further described below and focus on the City's current portfolio of

RPS supply agreements, evaluating potential portfolio impacts related to lower-than-expected deliveries and contract failure/termination amongst other considerations. In reviewing its analysis, the City feels confident that its MMoP, as further described herein, and general RPS procurement strategy will satisfactorily address applicable compliance mandates throughout the planning period.

Again, the relatively small communities and related renewable energy procurement efforts supported by CalChoice are not comparable to the geographic footprint and/or procurement efforts undertaken by the incumbent utility, SCE; individual communities supported by CalChoice tend to have near-term annual renewable energy procurement targets ranging from 50-300 gigawatt hours, while SCE is expected to procure several thousand gigawatt hours to meet its respective obligations. The significance of these differences and the complexity of related procurement efforts, including the myriad contracts typically required by larger entities, necessitate a much different scope of procedural considerations and risk mitigation measures – the RPS Procurement Plans submitted by the IOUs should not be the standard by which all other Plans are measured.

I. Major Changes to RPS Plan

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

Plan Reference	Plan Section	Summary/Justification of Change
2022 RPS Procurement Plan: Section II	Executive Summary	Updated to reflect the changes made throughout other sections of this RPS Plan.

2022 RPS Procurement Plan: Section IV	Portfolio Optimization	Updated to describe Voluntary Allocation Market Offer proposal/framework approved in Decision 21-05-030 and subsequent decisions and resolutions, and the City's acceptance of its allocation in the VAMO process. Updated to describe procurement undertaken to comply with D.21-06-035, the Mid-Term Procurement Decision.
2022 RPS Procurement Plan: Section IV.B.1	Long-term Procurement	Updated long-term RPS procurement discussion.
2022 RPS Procurement Plan: Section V	Project Development Status Update	Updated Appendix D to reflect the progress of new-build renewable generating projects.
2022 RPS Procurement Plan: Section VI	Potential Compliance Delays	Updated narrative to incorporate changing renewable energy procurement marketplace.
2022RPS Procurement Plan: Section VII	Risk Assessment	Added new risk assessment.
2022 RPS Procurement Plan: Section VIII	Renewable Net Short Calculation	Updated Appendix C to reflect ongoing procurement efforts.
2022 RPS Procurement Plan: Section XIV	Cost Quantification	Updated Appendix E to reflect ongoing procurement efforts.

II. Executive Summary

RMEA is a CCA organization serving residential and business customers located within the City of Rancho Mirage. RMEA initiated customer service in May 2018 and currently serves approximately 15,000 retail electric accounts, which are expected to consume about 288 gigawatt hours per year. To streamline CCA program administration and create procedural efficiencies through jointly administered planning and procurement functions, RMEA continues to engage CalChoice for requisite planning and procurement support. RMEA regularly

participates in jointly administered solicitations for long-term RPS-eligible renewable energy supply and other products, as administered by CalChoice. In fact, CalChoice, in combination with Desert Community Energy Authority and Clean Energy Alliance, recently administered a request for proposals for resources to meet the CCAs' needs under D.21-06-035, the decision requiring procurement to address mid-term reliability for 2023-2026, and potentially long-term RPS needs. Responses were due February 4, 2022 and CalChoice is currently in the process of negotiating with shortlisted respondents. Irrespective of the outcomes related to these negotiating efforts, the City's most recent contractual commitments are expected to address the balance of RMEA's long-term RPS need in Compliance Period 4. In addition to various long-term supply agreements, RMEA has also executed certain short-term RPS supply commitments to address near-term RPS compliance mandates and related planning reserves. RMEA anticipates participating in various other solicitation efforts (administered by CalChoice and, possibly, the IOUs) and recently finalized its elections related to SCE's VAMO process, deciding to accept 40% of the available long-term allocation and none of the available short-term allocation. These procurement processes are expected to address the City's remaining RPS open positions (both short- and long-term, as appropriate) and the increasing renewable procurement targets reflected in California's RPS Program.

RMEA's RPS open positions remain subject to periodic evaluation – such evaluations will generally occur: 1) prior to solicitation administration (for purposes of quantifying renewable energy volumes to be addressed in the upcoming solicitation); 2) after bid receipt (to determine potential impacts to RMEA's RPS open position); 3) after execution of any RPS contract (to quantify expected reductions to the open position associated with successful procurement activities); and 4) throughout each operating year as the relationship between actual

and expected renewable energy deliveries is periodically monitored relative to retail electricity sales (to determine if additional procurement or surplus sales may be necessary to promote portfolio balance). This process will remain ongoing and will be utilized to guide RMEA participation in future renewable energy procurement processes. Based on the results of this recurring exercise, RMEA may: 1) evaluate the need to adjust renewable energy planning reserves; 2) consider the manner in which project development and performance risk will be assessed and incorporated during RMEA's renewable energy procurement efforts; and 3) assess various other considerations related to the RPS Program as further described in this RPS Procurement Plan.

Since submittal of its Final 2021 RPS Procurement Plan, which occurred on February 17, 2022, RMEA continues to successfully operate its CCA Program. Amongst its key operational concerns, RMEA, via services provided by CalChoice, engages in requisite planning and procurement efforts to ensure compliance with California's RPS procurement mandate. Similar to other CalChoice members, RMEA has access to various resources and advisory services as well as a community of member organizations, which are able to create efficiencies through the administration of joint procurement processes and other inter-agency coordination. Going forward, joint procurement efforts, including participation in various CalChoice renewable energy RFPs, will enhance RMEA's ability to efficiently and cost effectively identify and procure necessary renewable energy supply. RMEA also believes that this sort of joint procurement activity will provide access to larger, lower-priced procurement opportunities that would otherwise be unavailable to its individual CCA Program (due to sizing limitations), resulting in reduced overall renewable energy costs for its customers as well as general improvements in procedural efficiency.

City staff, in cooperation with CalChoice and its advisors, continue to evaluate the appropriateness of a 2% minimum margin of procurement (or "MMoP", which in the City's case is determined relative to total expected annual retail sales) for requisite renewable energy supply. Analysis of the amounts of wind and solar curtailments in the CAISO over the 2018-2021 period show that curtailments were well below 1% of total load, and under 5% of the total renewable generation related to these specific technology types. Further, a risk analysis conducted by RMEA confirms that the 2% MMoP is expected to be sufficient. Ongoing discussions and analyses suggest that such a margin would provide adequate "cushion" in meeting applicable compliance mandates. In the future, if actual renewable energy deliveries are expected to fall short of projections, RMEA will consider adjusting the noted planning reserve. This approach seems to effectively balance RMEA's interest in fulfilling pertinent RPS compliance obligations without subjecting the City's CCA Program or its customers to unnecessarily high incremental renewable energy costs that would likely accrue in parallel with higher planning reserve targets. Before making any future adjustments (increases) to its anticipated renewable energy planning reserve, RMEA will also monitor the local and national economic situation, including any potential issues related to business closures, the recovery/collection of customer payments and other concerns that could arise as the federal government continues to manage inflationary pressures by increasing interest rates.

Over time, following the accumulation of additional financial reserves, the City will be better prepared to exhibit increased flexibility if larger renewable planning reserves are deemed necessary. With regard to the City's noted 2% renewable reserve margin, which is synonymous with the term "margin of procurement", the following methodology would apply: if expected retail sales total approximately 282 GWh in 2021, RMEA would plan to procure an additional 6

GWh of renewable energy (2% of the estimated 282 GWh retail sales forecast; this quantity of renewable energy would be in excess of the anticipated interim annual procurement target related to California's RPS) to protect against renewable energy delivery shortfalls in this year. Relating such a margin of over procurement to the 38.5% interim annual procurement mandate in 2022, this would provide the City with a 5.2% cushion (relative to the prevailing interim annual procurement target in this year) in the event that actual deliveries fell below expectations (relative to the expected 109 GWh of renewable energy that would be required to meet the State's interim annual procurement mandate). During RMEA's ongoing discussions with CalChoice on this topic, it has been determined that such a margin could be periodically evaluated and adjusted on an as-needed basis in consideration of the manner in which actual renewable energy purchases/deliveries track with related projections and applicable statewide mandates, renewable product availability, budgetary impacts, customer participation rates (in RMEA's CCA program) and various other considerations.

Looking ahead to the balance of 2022 and beyond, the City and CalChoice are committed to administering renewable energy solicitations on an as-needed basis to ensure that both short- and long-term renewable energy requirements are satisfied. In considering its long-term renewable energy procurement obligations, the City acknowledges that certain new-build contracting opportunities, which typically require long-term purchase commitments, may need substantial lead time before related renewable energy production occurs – ensuring that renewable energy deliveries associated with such projects dovetail with the City's mandated RPS purchase will require careful planning, selection of proven project developers and thoughtful consideration of ongoing renewable planning reserves to promote alignment of actual and projected renewable energy needs. For the time being, however, all of the City's RPS supply

commitments are with generating facilities that have already achieved commercial operation. Given the success of its ongoing renewable energy procurement efforts, the City is confident in its ability to identify sufficient levels of renewable energy supply and will work diligently to secure such supply during ongoing operations. Recently accepted long-term VAMO allocations from SCE are expected to solidify the City's achievement of applicable long-term RPS contracting mandates in Compliance Period 4 and beyond. The City does not take for granted that proposed RPS procurement/project opportunities will result in finalized/executed contractual commitments. With this in mind, RMEA is prepared to exhibit flexibility in administering future RPS solicitations and will continue to engage the market until contractual commitments closely align with or exceed anticipated resource needs.

As part of its ongoing planning process, RMEA is also considering the manner in which renewable energy compliance risks will be assessed and managed. RMEA has further considered this topic after submitting its Final 2021 RPS Procurement Plan and determined that an enhanced risk analysis would be instructive in assessing the sufficiency of its MMoP and other variables that could impact planned renewable energy deliveries. The results of this analysis are presented below, including a description of the methodology that was applied in completing such analysis. Based on the results of its analysis and previous guidance from CalChoice, the identification and selection of highly experienced and financially viable renewable energy sellers remains the single most important consideration in promoting the achievement of RPS compliance – by pursuing supply commitments from such sellers, including the specification of contract terms that narrow compliance risk (through firm, fixed delivery quantities or relatively high energy delivery guarantees, RMEA and CalChoice believe that the substantial majority of future delivery risk can be avoided. This will be accomplished by

completing a rigorous review of each prospective supplier's development and operational experience, track record of success (in terms of developing and/or operating renewable energy projects), financial standing and credit rating, familiarity with pertinent development milestones as well as the state of completion for such items, customer references and various other considerations. During completion of this process, the field of respondents will be significantly narrowed, leaving only the best qualified suppliers to undergo further consideration.

This RPS Procurement Plan also addresses new requirements specified in the April 11, 2022 ACR, including updates that reflect an extended planning period, through 2032, as well as recently completed risk assessment; this 2022 RPS Procurement Plan also includes information regarding the City's acceptance of long-term RPS allocations made available through the VAMO process as further described below.

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 how this RPS Procurement Plan demonstrates that RMEA meets these requirements.

SB 350 was signed by the Governor on October 7, 2015. SB 350 set a new RPS procurement target of 50 percent 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.

SB 100 was signed by the Governor on September 10, 2018 and became effective on January 1, 2019. SB 100 increased the RPS procurement requirements to 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent 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 instituted Rulemaking 18-07-003 to continue the implementation of the RPS. On June 28, 2019, the Commission issued D.19-06-023, which continues to use a straight-line method to calculate compliance period procurement quantity requirements.

The current RPS procurement targets are incorporated into RMEA's Renewable Net Short Calculation Table as described in Section VIII below and attached as Appendix C. RMEA's current and planned procurement, as reflected in RMEA's Renewable Net Short Calculation Table and described in Sections IV and V, is expected to be sufficient to exceed these targets, including a minimum margin of over-procurement based on RMEA's perception of reasonably foreseeable risks, as further described in Sections VII and IX. RMEA is also positioned to meet 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 section 8388, which requires any IOU, 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. RMEA does not have a contract with a biomass facility that is covered by Public Utilities Code section 8388.

SB 255 (stats. 2020, ch. 407) amended Public Utilities Code section 366.2 to require certain CCAs to annually submit to the Commission the following: (i) a plan for "increasing procurement from small, local, and diverse business enterprises in all categories, including, but not limited to, renewable energy, energy storage system, and smart grid projects," and (ii) a report regarding the CCA's "procurement from women, minority, disabled veteran, and LGBT business enterprises in all categories, including, but not limited to, renewable energy, energy storage system, and smart grid projects." CalChoice submitted the *Supplier Diversity 2021 Annual Report and 2022 Annual Plan* on behalf of its members, including the City, in compliance with SB 255 and General Order 156.[1]

IV. Assessment of RPS Portfolio Supplies and Demand

IV.A. Portfolio Supply and Demand

As previously noted, RMEA began serving customers in May 2018. RMEA currently provides retail electric generation service to approximately 15,000 retail electric accounts, which are expected to consume about 288 gigawatt hours per year. To date, RMEA, via solicitations administered by CalChoice, has entered into several power supply agreements (both short- and long-term) with various suppliers, certain of which will contribute to RMEA's RPS compliance during early-stage and ongoing CCA operation. RMEA expects that further solicitations will be necessary over time, as additional supply commitments will be required to fulfill the City's growing renewable energy requirements that are expected to increase in concert with California's escalating RPS mandate. Such solicitation processes will be focused on both short-term and long-term renewable energy needs and will be administered on an as-needed

[1] *See* CalChoice *Supplier Diversity 2021 Annual Report and 2022 Annual Plan*, March 1, 2022, available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/bco/cca-procurement-reports/2021/calchoice-supplier-diversity-2021-report-and-2022-annual-plan.pdf.

basis, following RMEA's periodic evaluation of expected renewable energy deliveries relative to projections.

The exact portfolio characteristics selected may vary depending on direction received from the City's Governing Council, advice provided by CalChoice, renewable resource availability, procurement costs, legislative and policy changes, technological improvements, preferences of the community, or other developments, such as the procurement ordered in Mid-Term Reliability decision, D.21-06-035. To manage this future uncertainty, RMEA and CalChoice examine and estimate supply and customer demand and will structure future procurement efforts to balance customer demand with requisite resource commitments. This examination of customer demand and other market developments will help reduce costs and assist in meeting expected renewable energy requirements for the period addressed in this RPS Procurement Plan.

RMEA is also attempting to gain an improved understanding of the prospective impacts to its customer base associated with the potential reopening of California's direct access market due to SB 237 (2018) and D.19-05-043. In D.21-06-033, the Commission recommended against expanding direct access at this point, however, the City recognizes that this may change in the future. The City will monitor direct access for any changes that may result in future adjustments to RMEA's load forecast and related renewable energy procurement obligations, which would be expected to decrease if RMEA loads migrates to direct access providers – in theory, such a change would push RMEA's renewable energy content higher unless surplus supply was sold to other market participants; this would be similar to the impacts experienced by California's IOUs, which have resulted from ongoing CCA implementations and expansions – following these activities, the proportionate RPS content of each IOU has increased, as

evidenced in the annual Power Source Disclosure Report of each IOU (for reference, this has occurred in spite of IOU-administered solicitations intended to sell off surplus RPS supply, which suggests that other retail sellers, particularly CCAs, have already made meaningful progress in meeting applicable RPS mandates in the near-term planning horizon). To the extent that any adjustments are made to the City's retail sales forecast, it will reflect such adjustments in a subsequent RPS Procurement Plan. Through the ongoing evaluation of customer demand and other market developments, RMEA hopes to influence reduced overall costs while meeting planned procurement objectives for the period addressed in this RPS Procurement Plan.

Also, as COVID-19 cases generally decline and mobility restrictions continue to relax, the City will continue to monitor retail sales in the event that any meaningful deviations from historical norms happen to surface. The City will also monitor any changes that might arise from ongoing inflationary pressures and the implementation of higher interest rates that are being applied by the federal government to manage such inflation. Much like load-related impacts throughout the pandemic, the City understands that customer energy use within California's current period of economic uncertainty (meaning, the "high inflation, rising interest rate" environment being experienced throughout the country) and the post-pandemic recovery period may be difficult to predict and easily obscured by typical variations in weather. Nonetheless, the City will closely evaluate available data, attempting to parse various impacts on retail electricity consumption while incorporating adjustments to its planning assumptions on an as-needed basis. Regardless of any near-term load volatility, the City remains confident that its internally adopted MMoP, when applied to its renewable energy targets, will virtually eliminate the potential for compliance deficits.

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 PCIA rulemaking (R.17-06-026). One of the Final Report's key proposals was for the Commission to create a VAMO framework, where each LSE serving customers subject to the PCIA would be provided an annual option to receive an allocation ("Voluntary Allocation") from the IOUs' PCIA-eligible RPS energy portfolios, based on that 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 process ("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. LSEs will also be able to acquire resources through the VAMO structure that will be considered long-term contract resources.

The Commission recently approved D.22-06-024, which provided additional guidance on the VAMO process, as well as Resolution No. E-5216, which approved the IOUs' pro forma contracts for the voluntary allocations. The IOUs have also filed advice letters outlining their market offer processes for resources not allocated through the voluntary allocations; approval for these processes is expected later this year.

The City recently evaluated available short- and long-term VAMO allocations relative to its current and future RPS needs and subsequently notified SCE of its intent to accept 40% of the available long-term allocation; no short-term allocations were accepted. Details related to the City's anticipated VAMO deliveries are further detailed in the following table:

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
RMEA's Planned Long-Term VAMO Allocation (at 40% of Total)	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
PCC 0 (MWh)	11,412	11,386	11,321	11,277	11,207	11,114	10,987	10,860	10,844	10,854
PCC 1 (MWh)	28,973	28,752	28,483	28,277	27,867	27,305	26,714	26,119	26,015	25,978
Total Anticipated VAMO Volume (MWh)	40,385	40,138	39,803	39,554	39,073	38,419	37,701	36,978	36,859	36,831

These anticipated long-term VAMO volumes are now reflected in the City's planning assumptions, including its Renewable Net Short reporting template, which has been updated and attached hereto as Appendix C.

IV.A.2. Portfolio Optimization

The City's goal is to meet its locally adopted policies and statewide mandates in a manner that is both cost effective and supportive of a well-balanced resource portfolio. Portfolio optimization strategies can help reduce costs and should facilitate alignment of the City's resource portfolio with forecasted energy requirements of its CCA customers. In order to support this goal, the City regularly considers the following strategies:

Joint Solicitations: Joint solicitations can expand the procurement opportunities available to a CCA, as well as potentially provide better contract terms. The City participated in the recent CalChoice, Desert Community Energy Authority and Clean Energy Alliance solicitation for Mid-Term Reliability (MTR) resources and long-term renewable energy supply and intends to continue participating in such joint solicitation activities as part of the shared services arrangement that it has in place with CalChoice. The City is also evaluating and participating in joint solicitations through CalChoice with other CCAs.

Purchases from Retail Sellers: Purchases of RPS-eligible renewable energy (via resale) from other retail sellers can provide a cost-effective way of meeting short term resource needs or filling in gaps in procurement while long term projects are under development. The City will evaluate solicitations offered by other retail sellers, as necessary.

Sales Solicitations: Based on its portfolio rebalancing needs, the City will also consider administering RPS sales solicitations (with the City serving as seller) to other market participants.

Optimizing Existing Procurement: As the City considers its long-term resource needs, it may evaluate options in its future power purchase agreements, if available, to increase output of existing generating facilities through technological upgrades or by adding new capacity to an existing generator. Expanding existing facilities or adding energy storage infrastructure at existing generating facilities may provide additional generation at reduced costs and/or increased operational flexibility with a lower risks of project failure (because the need for distribution system upgrades and permitting may be reduced) – such opportunities may be pursued, as deemed appropriate by the City.

On June 24, 2021, the Commission adopted D.21-06-035, which directed all retail sellers to procure 11,500 MW of new net qualifying capacity ("NQC") between 2023 and 2026 and assigned each retail seller a specific procurement responsibility based on its share of peak demand. The City's total obligation is 18 MW, which must include minimum amounts of procurement from certain subcategories: (1) 4 MW from firm, zero-emitting capacity by 2025; (2) 1.5 MW from long duration storage resources by 2026; and (3) 1.5 MW from firm, non-fossil fueled baseload generating resources by 2026. The City is currently evaluating a range of procurement options for meeting is D.21-06-035 obligations. This procurement was addressed through the request for proposals conducted jointly by CalChoice, Desert Community Energy Authority, and Clean Energy Alliance described elsewhere in this RPS Procurement Plan. Options to be considered range from RA-only contracts to renewable generation, including that paired with storage and stand-alone storage contracts with various different energy structures. While RPS-eligible generation would provide an added benefit, it is not the primary objective or deciding factor in determining which procurement options will ultimately be selected. If the City does meet any of its D.21-06-035 procurement obligations with renewable generation, then that generation may be in addition to the planning and forecasting described in this RPS Procurement Plan. The City will try to optimize its RPS procurement with the requirements from D.21-06-035 and will hopefully be able to harmonize these procurements to reduce costs, improve resource dispatchability (to better align renewable resource delivery profiles to the City's load profile) and

avoid any need to over-procure resources.

IV.B. Responsiveness to Local and Regional Policies

(i) Responsiveness to Policies of RMEA's Governing Council

RMEA is a local governmental agency that is subject to the control of the City's Governing Council and is directly accountable to the community that it serves. RMEA generally supports and is committed to meeting the state's GHG reduction and renewable procurement goals. Furthermore, and as noted elsewhere in this RPS Procurement Plan, the City has adopted near-term renewable portfolio targets that closely align with RPS mandates. As a result, the City's supply portfolio will be structured to achieve and sustain RPS compliance at the lowest possible cost (which is a key objective of the City's CCA program).

(ii) Responsiveness to Regional Policies

As noted in the previous sub-section, the City is overseen by its governing council, which also serves as the governing board/authority for its CCA program. As such, the policies adopted by the City's governing council (related to CCA operations) serve as guiding directives for CCA operations, including the determination of renewable energy planning targets that are intended to support local policy preferences.

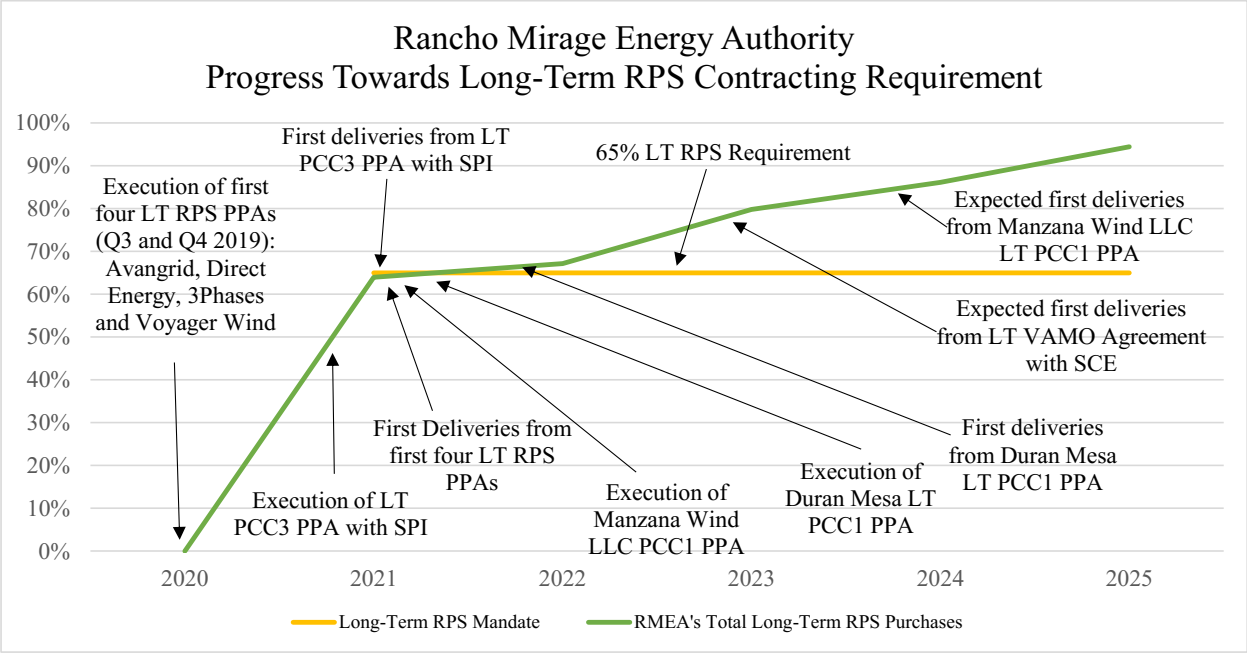
IV.B.1. Long-term Procurement

Pursuant to Public Utilities Code section 399.13(b), from 2021 onwards, 65 percent of mandated renewable energy purchases must be sourced from contracts of 10 years or more. The City has been conscientiously planning and procuring to meet this requirement and is making good progress in this regard. Based on existing long-term supply commitments, the City expects to achieve compliance with the long-term contracting requirement in the current compliance period, Compliance Period 4 (2021-2024). Additional long-term contracting efforts will be

pursued to support RMEA's ongoing RPS compliance in Compliance Period 5 and 6.

Regarding recent additions to the City's long-term RPS supply portfolio, RMEA executed an additional long-term PCC1 supply agreement with a New Mexico-based wind resource on April 21, 2021 – initial project deliveries commenced in December 2021 and will provide RMEA with approximately 8,000 MWh/year of incremental PCC1 volume during the fifteen-year contract term. RMEA is also in late-stage negotiations with an experienced supplier of long-term PCC1 products and expects to finalize such negotiations (and execute a related supply agreement) around the time that this RPS Procurement Plan is submitted – RMEA looks forward to updating the Commission regarding the successful execution of this agreement and its impact on the organization's resource planning efforts in a future RPS Procurement Plan.

The following chart reflects the City's current and anticipated progress in meeting California's long-term RPS contracting mandate in Compliance Period 4 and beyond. Note that this chart now includes anticipated long-term VAMO volumes in 2023 and beyond, which meaningfully increased the City's long-term RPS positions relative to those reflected in the City's initial Draft 2022 Plan. The City notes that existing long-term contracts, including the recently executed addition to its long-term RPS supply portfolio, are expected to fulfill its long-term contracting requirements in CP4, plus a reasonable reserve. Should any delivery delays occur, the City will pursue other long-term contracting opportunities and will advise the Commission of such procurement activities.



As reflected in the previous chart, the City expects to exceed applicable long-term RPS procurement mandates in Compliance Period 4. More specifically, for Compliance Period 4, the City expects to procure 132% of its required long-term RPS mandate (which means that the City expects to procure 86% of total statutorily mandated RPS purchases from long-term contracts), based on expected RPS deliveries of 405 GWh, relative to a projected long-term procurement obligation of 306 GWh. Similarly, in Compliance Period 5, which includes calendar years 2025 through 2027, the City expects to procure 136% of its required long-term RPS mandate (which means the City expects to procure 89% of total statutorily mandated RPS purchases from long-term contracts), based on expected RPS deliveries of 399 GWh, relative to a projected long-term procurement obligation of 293 GWh. In Compliance Period 6, which includes calendar years 2028 through 2030, the City expects to procure 115% of its required long-term RPS mandate (which means the City again expects to procure 75% of total statutorily mandated RPS purchases from long-term contracts), based on expected RPS deliveries of 398 GWh, relative to a projected long-term procurement obligation of 346 GWh. These projections are based on estimated annual

deliveries to be received under the City's current long-term RPS supply agreements, including its long-term VAMO supply agreement with SCE. While the City previously advised the Commission of its intent to accept certain long-term RPS volumes under VAMO, this agreement has now been finalized, so related volumes are forthcoming. Based on expected long-term RPS deliveries, the City believes it will be able to successfully achieve compliance with long-term RPS procurement mandates through 2030 under a variety of adverse scenarios in which delivery shortfalls could occur. This noted, the City expects to strategically pursue additional long-term RPS supply, via solicitations administered by CalChoice and bilateral contracting discussions, to increase long-term planning reserves, promoting increased compliance certainty in advance of future operating periods.

RMEA understands that fulfilling upcoming long-term contracting requirements (in 2025 and beyond) will be somewhat iterative, but the City's recent acceptance of certain long-term VAMO allocations has created future RPS planning surpluses, which may be retained or re-sold to promote balance between RPS procurement requirements and actual renewable energy deliveries. In the event that the City enters into other contracts with new-build renewable generating facilities, it will closely monitor project development progress and contract/project performance to ensure that actual long-term deliveries meet or exceed pertinent requirements. Any future long-term contracting efforts will be described in subsequent RPS Procurement Plans.

IV.C. Portfolio Diversity and Reliability

RMEA has considered and will continue to consider the deliverability characteristics of its current and future generating resources placed under contract (such as the resource's dispatchability, available capacity, and typical production patterns) and will review 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, and provide value to the local community. The City may also consider renewable energy plus storage options and stand-alone storage options, subject to availability and cost, which would allow RMEA to better align/dispatch available energy supply in consideration of customer usage patterns – such resource types may be eventually included in RMEA's supply portfolio as a result of its participation in the joint solicitation with CalChoice, Desert Community Energy Authority, and Clean Energy Alliance as described elsewhere in the RPS Plan. Solicitations of this sort, both current and future, should help alleviate grid impacts that could otherwise result from increased buildout of certain resources that may contribute to conditions of over-generation. A quantitative description of this forecast is attached to this RPS Procurement Plan in Appendix C.

While the City is not opposed to considering emerging renewable generating technologies, it is unlikely that upcoming supply agreement(s) will focus on such resources – the City has yet to receive credible and cost-competitive proposals from emerging renewable generating technologies, but if such proposals arrive in the future, they will be closely considered alongside other viable options. Based on the City's renewable energy planning goals and intended reserve margins, its renewable supply commitments must result in reliable, cost-effective supply to promote compliance with applicable RPS mandates without bearing the risks typically associated with newer technologies. Until compelling proposals for emerging renewable generating technologies are received, the City will likely exhibit preferences for "tried and true" generating technologies, including energy storage options, that will minimize delivery risk during ongoing operation while allowing for re-shaping of certain renewable generating

profiles to better align supply with demand.

The City will procure renewable and other energy products, as necessary, to ensure that the future energy needs of its customers are met in a manner that promotes reliability and cost-effectiveness, consistent with applicable compliance mandates and general objectives of the CCA Program. The City has established procurement targets for renewable energy supply, including subcategories for various renewable energy products, and has also established targets for related planning reserves as described elsewhere in this document – currently applicable renewable energy procurement targets generally mirror RPS mandates, plus the noted two percent planning reserve. To the extent that the City's energy needs are not fulfilled through the use of renewable generating resources, it should be assumed that such supply will be sourced from conventional energy resources, such as natural gas generating technologies or system power purchases, or other carbon-free generating technologies (specifically, hydroelectricity) that may be necessary to further progress in meeting California's greenhouse gas emission reduction goals.

RMEA currently utilizes a portfolio risk management approach as part of the power purchasing program that is administered by CalChoice on its behalf, seeking low-cost supply (based on prevailing market conditions at the time of solicitation administration) as well as diversity amongst technologies, production profiles, project sizes and locations, counterparties, lengths of contract, and timing of market purchases. It is reasonable to assume that RMEA's supply portfolio will increase in complexity over time, utilizing an increasing number of supply contracts and related supplier relationships by emphasizing the principles of resource and counterparty diversity.

A key component of RMEA's planning process relates to the analysis and consideration of expected load obligations with the objective of closely balancing supply/demand, cost/rate stability and overall budgetary impacts. RMEA and CalChoice actively monitor actual customer usage, relative to projections, refining such forecasts as well as the ability to minimize variances between procured energy quantities and actual usage – while this process may not eliminate such variances, it should significantly reduce them, minimizing exposure of the CCA Program and its customers to unexpected cost spikes that may occur within California's power market. The City is committed to developing an accurate understanding of the manner in which its customers use electric power to promote an efficient and cost-effective procurement process.

As part of developing an understanding of how its customers use electric power, the City maintains load curves that reflect expected increases in load due to both transportation electrification and building electrification. Transportation electrification planning considers personal light duty vehicles, electrification of fleets and local targets for electrification of public transit systems. The forecasting of the City's anticipated transportation electrification adoption rates is performed through the application of a fixed percentage annual increase that is informed by historical observations and generalized trends related to transportation electrification adoption. The information considered in this process includes the three scenarios (low, mid, high) identified in the California Energy Commission's Integrated Energy Policy Report ("IEPR") Demand Forecast.[2] The City is currently evaluating the development of a transportation electrification forecast that would be directly based on the mid scenario for transportation electricity demand of the IEPR Demand Forecast as well as other available data/information that

[2] *See* Javanbakht, Heidi, Cary Garcia, Ingrid Neumann, Anitha Rednam, Stephanie Bailey, and Quentin Gee. 2022. Final 2021 Integrated Energy Policy Report, Volume IV: California Energy Demand Forecast. California Energy Commission. Publication Number: CEC-1002021-001-V4, at 65.

would allow such a forecast to be directly tailored to its region. This data/information may include any applicable local policies related to transportation electrification, locally available incentives focused on transportation electrification, and/or data related to electric transportation adoption/conversion occurring within the City's region. Contracting with a diverse set of renewable resources from different locations throughout California and the West will be necessary to accomplish the goal of aligning a renewable energy portfolio to LSE's load curves. With regard to the City's anticipated renewable energy requirements, RMEA maintains portfolio coverage targets of up to 100 percent in the near-term (0 to 2 years) but leaves larger open positions in the mid- to long-term, consistent with generally accepted industry practices. This noted, RMEA is aware of the eminent long-term contracting requirement of 65% and keeps this obligation in mind when addressing its longer-term portfolio coverage targets.

At this point in time, the City has no explicit preference for specific renewable generating technologies and considers all resource types with the goal of assembling a diversified, cost effective renewable energy supply portfolio that will deliver energy in a profile that is generally consistent with the anticipated load shape of RMEA customers. RMEA is also aware that future reliance on intermittent renewable generating technologies has the potential to create occasional misalignments between customer energy consumption and power production as well as variances between the actual and expected quantity of renewable energy received from such projects. In order to better align the quantities of renewable energy with load, and help reduce variances between actual and expected quantities of renewable energy, the City is considering both stand-alone storage and hybrid or co-located storage and renewable energy projects. The City has also applied the previously described minimum margin of over procurement for renewable energy (set at 2% of retail sales). To the extent that significant, prolonged variances are observed

between RMEA's actual and expected energy use, staff may propose increased planning reserves (beyond the current 2% of retail sales metric reflected herein).

IV.D. Lessons Learned

In communicating with and reviewing the RPS Procurement Plans of California's most mature CCA organizations as well as considering its own experiences in developing an RPS portfolio, the City observes that geographic diversity remains an important element in selecting renewable energy resources/contracting opportunities. The City observes that certain areas of the state have been overbuilt with renewable generating infrastructure, which has created challenges related to depressed market prices and increasing levels of resource curtailment. The City has kept this observation in mind when assembling its own renewable resource portfolio, avoiding overcommitment to resources within a narrowly defined geographic area. Based on communications with CalChoice and other CCAs, the City also continues to evaluate historical pricing trends, which have materially changed in the wake of increased renewable energy buildout. Due to these transitions and suppressed (and oftentimes negative) market pricing, the City will likely avoid contracting with generators located in certain areas or require substantial storage capacity (operated in parallel with renewable generating infrastructure) to mitigate market price risk when considering renewable generating resources located in such areas. The City appreciates the substantial financial risks that are created by California's long-term renewable contracting requirements and will continue to explore opportunities to manage such risks during its contracting efforts.

V. Project Development Status Update

As described in Section IV.B above, RMEA's current and planned procurement is expected to be sufficient to meet applicable RPS procurement requirements while supporting the

state's GHG reduction targets. Further, RMEA's current and planned procurement supports system reliability by considering both portfolio diversity and alignment with RMEA customers' load curve. Specifically, RMEA's selected projects fit within and support RMEA's plans for meeting these goals.

RMEA's ongoing contracting efforts have resulted in supply commitments with new/repowered generating assets and related (updated) details are included in the Project Development Status Update Report, Appendix D.

RMEA is pleased to be able to inform the Commission that its projects under development have achieved commercial operation**.** As reported in its Final 2021 RPS Procurement Plan, the Duran Mesa wind project located in Duran, NM commenced commercial operations in late 2021. The two other projects, RMEA had under development are both operational; RMEA reported in its Final 2021 RPS Procurement Plan that ColGreen was operational and IP Athos achieved its commercial operations date on May 19, 2022.

Regarding RMEA's commitment to new-build renewable infrastructure, it has entered into the three RPS supply agreements mentioned in the prior paragraph, which demonstrate support for new renewable infrastructure. As other favorable procurement opportunities are identified for new renewable generation, RMEA will thoroughly evaluate such opportunities against other available supply alternatives.

The City observes that there may be some confusion regarding the information reflected in Section V of its Draft 2022 RPS Procurement Plan. More specifically, Appendix D, as attached to the City's Draft 2022 RPS Procurement Plan, included as single row addressing the development status of projects associated with RPS Contract ID RMEA50012. This individual RPS contract, RMEA50012, includes <u>two separate generating facilities</u>, both of which have now

achieved commercial operation. Status information related to these projects was generally described in Column W, Project Notes, indicating that ColGreen had achieved commercial operation as of the submittal of the City's Final 2021 RPS Procurement Plan; later, on May 19, 2022, IP Athos achieved commercial operation. The third project referenced in this section, Duran Mesa, achieved commercial operation in late 2021. Because all of these projects had achieved commercial operation prior to the submittal of the City's Draft 2022 RPS Procurement Plan, there were no entries included in Row 16 of the City's RNS reporting template, as there were no volumes that needed to be reported for Facilities in Development.

VI. Potential Compliance Delays

RMEA does not anticipate any compliance delays for the current compliance period (Compliance Period 4, which includes calendar years 2021-2024). Ongoing contracting processes have resulted in the identification and execution of numerous renewable energy supply commitments, and RMEA's attention to annual balancing of requisite renewable energy purchases relative to retail sales is expected to put the CCA program in position where actual renewable energy deliveries closely align with (but slightly exceed) applicable compliance mandates during the current compliance period. RMEA is also making good progress in meeting the state's 65% long-term contracting requirement. RMEA will continue assessing projected long-term open positions relative to expected deliveries and intends to participate in future CalChoice-administered solicitations, as necessary, to ensure compliance with this element of the RPS Program. The City's recent decision to accept certain long-term allocations made available through the VAMO process is expected to solidify the achievement of applicable long-term RPS contracting mandates.

As a small CCA, the City recognizes that its portfolio of resources will be more limited than larger LSEs and that delays in online dates and reduced generation from the RPS contracts may have significant impacts on both its level of RPS and its progress to achieving 65% from long term contracts. The City has discussed this topic with CalChoice, which continues to manage such risk through the screening and evaluative processes associated with its renewable energy solicitations. In particular, a key element of proposal evaluation focuses on the identification and selection of highly experienced and financially viable renewable energy sellers – by pursuing supply commitments from such sellers, the City and CalChoice believe that the substantial majority of future delivery risk is avoided. This will be accomplished by completing a rigorous review of each prospective supplier's development and operational experience, track record of success (in terms of developing and/or operating renewable energy projects), financial standing and credit rating, familiarity with pertinent development milestones as well as the state of completion for such items, customer references and various other considerations. During the completion of this process, the field of respondents will be significantly narrowed, leaving only the best qualified suppliers to undergo further consideration. The results of this process have led CalChoice, in cooperation with the City, to determine that further quantitative risk assessments have not been necessary thus far. In the future however, based on evolving market conditions, supplier interest or other circumstances, the City and CalChoice could determine that completion of quantitative risk assessments may be necessary and appropriate, depending upon the renewable energy procurement opportunities that happen to be pursued.

If a future compliance issue is identified or RMEA encounters challenges in securing requisite renewable energy supply, then RMEA will address such issue(s) in a subsequent RPS Procurement Plan.

As the Commission is aware, successful renewable energy markets depend upon international supply chains, substantial labor commitments, robust financial markets, timely interactions with governmental planning authorities and various other considerations. With numerous disruptions caused by the COVID-19 pandemic and various other challenges, it is incredibly challenging to determine if, and to what extent, renewable energy procurement opportunities may be compromised, particularly new-build renewable energy projects which typically rely on long-term contracts as the basis for project financing. The City will closely monitor energy usage patterns to determine if any planning adjustments may be necessary based on the current and expected economic conditions.

The City intends to closely monitor this situation as well as potential fallout related to supplier/developer effectiveness in fulfilling mandated renewable energy needs, project completion and overall supplier viability – the City is aware that many supply chains have been disrupted during the pandemic with a variety of material/component shortages occurring throughout the industry; recent concerns regarding the application of tariffs on certain imported renewable infrastructure have also provoked certain supplier to request "reopening" of previously executed contracts and/or the negotiation of terms that allow for price adjustments in the event of unexpected costs (such as the noted tariff). While the tariff issue seems to be temporarily resolved, concerns of this nature have introduced a measure of instability in the long-term contracting efforts of many retail sellers. With these concerns in mind, the City encourages the Commission to closely monitor and potentially reconsider certain elements of the RPS Program as this situation evolves, particularly if there are widespread, well-documented challenges as California retail sellers attempt to fulfill pertinent procurement requirements. Related, the City is aware of numerous instances in which contract documents are being drafted

with more expansive force majeure language to alleviate the concerns of sellers/developers in meeting project completion schedules due to potential pandemic-related delays – "day for day" commercial operation date extensions have been pursued, creating flexibility in achieving commercial operation date targets based on the duration of shelter-in-place directives. From the City's perspective, which is informed by guidance provided via CalChoice, buyers must be diligent in contracting efforts to strike an appropriate balance between flexibility and certainty – not all project development delays are expected to be directly attributable to the pandemic, so effectively parsing contractual accommodations (for development delays) in consideration of this reality should serve to manage uncertainties related to project completion and renewable delivery timelines.

The City also encourages the Commission to coordinate closely with the Legislature to evaluate potential adaptations to the RPS Program, which may become necessary if renewable energy markets are materially impacted by the pandemic. With rapidly changing circumstances and related information, the City anticipates the need for considerable flexibility/agility in working to meet requisite renewable energy procurement mandates. In the meantime, the City will remain hopeful that impacts to renewable energy markets will not compromise California's ability to reach its renewable energy procurement goals or its own, internally established renewable procurement targets.

VII. **Risk Assessment**

Compliance Risk

An important element of the City's RPS risk assessment process is determining potential vulnerabilities related to procurement and/or delivery shortfalls that could trigger deficits relative to the City's anticipated compliance obligations. Considering the City's internally

adopted renewable energy procurement targets and existing contractual commitments, this risk, as internally determined by the City in consultation with CalChoice, appears to be very low in Compliance Period 4 and beyond. As discussed elsewhere in this planning document, the City has established a MMoP that informs RPS procurement efforts and insures against compliance-related shortfalls. A recent letter from CPUC staff supports this assessment. More specifically, this letter, which was sent by the CPUC's Deputy Executive Director for Energy and Climate Policy in early December 2022, provided an assessment of the City's perceived RPS compliance risk for Compliance Period 4 (calendar years 2021 through 2024). According to the letter, the assessment was based on information included in the City's 2021 RPS Compliance Report, as submitted in the summer of 2022. Risk levels were assigned by the CPUC and identified as low, medium or high based on reported progress towards applicable RPS procurement mandates. In its letter, the City's risk level was categorized as "low."

Following submittal of its 2021 RPS Compliance Report, the City coordinated with SCE regarding its acceptance of long-term RPS volumes made available under the VAMO process. As indicated (above) in Section IV.A.1. of this plan, the City accepted 40% of its available long-term VAMO allocations, which meaningfully increased its anticipated RPS deliveries in Compliance Period 4 and beyond. With these incremental RPS volumes now included in the City's planning assumptions, the City expects that it will receive renewable energy volumes approximating 112% of its procurement quantity requirement in Compliance Period 4. On a projected basis, this satisfies the City's compliance obligations as well as its MMoP, providing additional flexibility in the event that retail sales surpass expectations or variable RPS deliveries (such as those related to VAMO) fall below projections. Again, the City believes that its internally adopted renewable energy procurement targets (reflective of statutory RPS mandates,

plus its MMoP), as well as existing contractual commitments, leave the City very well positioned to meet its ongoing RPS compliance obligations in Compliance Period 4 and beyond. It is important to note that the City may also be procuring additional short-term renewable energy supply in both 2023 and 2024 to ensure it meets its renewable energy procurement targets; such purchases will be arranged if currently contracted renewable energy deliveries fall below expectations. *Based on the City's assessment of compliance risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.* If anything happens to change in terms of the City's internal assessment of RPS compliance risk, it will inform the CPUC accordingly in a future RPS Procurement Plan.

The City will make reasonable efforts to minimize the risk of renewable procurement shortfalls for purposes of complying with applicable RPS mandates established in SB 100, but it cannot definitively predict the scope or magnitude of circumstances that may impact annual retail energy sales, renewable energy markets or individual project performance. With this in mind, the City will responsibly assess RPS compliance risk by considering three key planning elements: 1) retail sales variability; 2) renewable energy production/delivery variability; and 3) impacts to overall system reliability associated with the City's planned RPS purchases and other influences. These topics will be generally considered in the noted sequence with observed risks informing potential adaptations to the City's planning process, potential adaptations to planning reserves and, ultimately, refinements to the City's renewable energy procurement (or sales) processes and quantities. As described elsewhere in this RPS Procurement Plan and in consideration of City-adopted RPS planning targets, the City expects to be well-positioned to meet its RPS compliance requirements in Compliance Period 4 (and beyond). Therefore, the City's self-determined risk of non-compliance is low. Nevertheless, the City will continue to

assess demand-side and supply-side risks to better understand potential areas of concern and to promote achievement of organizational compliance objectives. If the City's self-determined risk of non-compliance happens to change in the future, it will accordingly advise the Commission of such assessment, related causes and anticipated remedial actions.

Regarding demand-side risk, the City continues to evaluate prospective retail sales during the 10-year planning period, including but not limited to new development projects (that could increase retail energy consumption) and business closures, expected customer attrition (or growth) and changes to behind-the-meter generating capacity. From a practical perspective, the greatest demand-side risk with regard to the City's anticipated customer base is that retail sales are meaningfully higher than anticipated during Compliance Period 4. As the Commission is aware, CCAs provide an opportunity for customer choice, allowing customers to voluntarily participate in the City's program or remain bundled customers of the incumbent utility, SCE. To the extent that customers choose to leave the City's CCA program, or "opt out", the City's retail sales will decrease, resulting in related increases to the ratio of renewable energy serving such customers (and improving the City's position relative to applicable RPS compliance mandates) – it is unlikely that the City's renewable supply commitments will provide volumetric flexibility/options in the event of higher-than-anticipated retail sales volumes; in such instances, the City would need to pursue additional procurement opportunities to address unanticipated open positions. The CCA program has been operating since 2018, and its customer base appears to be relatively stable; barring any unforeseen circumstances, substantial year-over-year variations in retail sales are not expected to occur. Also, considering the City's ongoing coordination with its planning department, the City expects to be well informed regarding upcoming development projects or other customer changes that could materially increase retail

sales. For this reason, the City believes that demand-side RPS compliance risk is manageable.

Regarding supply-side risks, the City is aware of the generation variability/intermittency associated with certain renewable technologies as well as the possibility of curtailment (based on pricing considerations or market directives) during certain times of day/year – with regard to curtailment, the City has learned from the experiences of LCE, a fellow CalChoice member, but the supply-related impacts associated with such curtailment activities at the Western Antelope Dry Ranch photovoltaic generating facility (in Lancaster, California; this facility is under long-term contract with LCE) have been very low over the past three years; additional detail related to LCE's experience with curtailment is provided below. In the case of new-build renewable projects, the City is also aware of the possibility of project delays and, potentially, project failure. Such circumstances can materially diminish renewable energy deliveries, jeopardizing the achievement of RPS compliance and exposing the CCA program to unexpected financial consequences, if such circumstances impact larger (or multiple) supply sources. Based on the City's relatively modest RPS planning reserve, it will need to be highly selective in identifying its renewable energy suppliers, particularly those offering supply from new-build generating facilities, and will generally focus on organizations that have well-documented track records of successfully fulfilling RPS delivery obligations.

To the best of the City's knowledge, few early-stage CCAs have experienced difficulties with generalized renewable energy procurement, but long-term RPS contracting has been more challenging – typical lead times (between contract execution and project completion) associated with new-build renewable energy projects are often 2-3 years or longer, and related power supply contracting efforts are rarely initiated so far in advance of service commencement. With this observation in mind, early-stage CCAs must either: 1) focus RPS contracting efforts on

existing renewable generating resources; or 2) accept failure/delay risks associated with new-build renewable projects placed under contract near the time of CCA launch by incorporating reasonable planning reserves to mitigate such risks. In the case of the City, a balanced approach has been pursued, which will focus on contracting efforts with both new and existing renewable generating resources, thereby minimizing, but not eliminating, risks associated with compliance shortfalls while promoting new renewable infrastructure buildout that will be required to meet California's increasing renewable procurement mandates. The City expects to pursue long-term RPS contracts that will yield delivery surpluses relative to applicable compliance mandates and such surpluses are expected to mitigate concerns related to project development delays and or failures during Compliance Period 4.

The City also anticipates mitigating supply-side risk by incorporating fixed-volume and index-plus pricing structures amongst its portfolio of RPS supply agreements. These procurement mechanisms serve to mitigate the risk of delivery variability (typically associated with intermittent renewable resources and/or renewable resources that may be subject to periodic curtailment) and exposure to negative market pricing (which could prompt economic curtailment). Fixed volume arrangements, in particular, also mitigate risk associated with commercial operation delays and facility failure; these structures also provide buyers with financial protections (via penalty payments) for under-delivery (which could be used, as a last resort, to offset compliance penalties in the event that the supplier or the City are unable to identify replacement volumes).

As part of the City's approach to managing supply-side risk (which will be carried out through its relationship with CalChoice), it has also adopted what it believes to be a CCA best practice related to RPS contracting: structuring solicitations to identify proven renewable

generating technologies in RMEA resource locations to be developed and/or operated by the most experienced available suppliers (with strong, well-documented track records of successful project completion and operational reliability). Unlike certain of the IOU's early-stage contracting efforts, which focused on experimental/unproven renewable generating technologies, CCAs have generally focused early-stage contracting efforts on tried-and-true technologies and highly experienced counterparties – the City intends to follow this practice as well.

This noted, there is always a possibility that future renewable energy supply will not be delivered as required, which is why the City, based on discussions with CalChoice, has incorporated a 2% minimum margin of procurement in its renewable energy planning process. The 2% minimum margin of procurement, or "planning reserve", has been determined to be sufficient, as discussed below, but this metric will undergo periodic review and, if necessary, revision during future planning discussions and in consideration of ongoing procurement efforts.

The City has compiled information about curtailments of renewable energy in CAISO over the last four years. This information is presented below. The data shows that renewable curtailment has been consistently under 1% of load. The City also analyzed the occurrence of negative prices within the SP-15 area of the CAISO. These studies, combined with the analysis of other risk discussed below, indicate that the 2% minimum margin of procurement adopted by the City should be sufficient, allowing for additional variability in supply. These past results are obviously not indicative of what might occur in the future, and indeed the data shows that the trend of renewable curtailment has generally been increasing. However, the City has considered recent and expected developments in energy markets and believes that increases in curtailments and negative prices should not continue growing as seen in the last few years. There are several reasons for this. First, the amount of storage available on the CAISO system, much of it tied

directly to renewable resources, has grown dramatically over the last year and is expected to continue this explosive growth over the next few years. The growth of storage should provide a sink for large amounts of renewable energy that might today be curtailed, especially since much of the storage is co-located with the renewable energy. Exports of energy from the CAISO during periods of low prices when renewable curtailment would likely occur have also been increasing as the rest of the west begins to recognize the benefits to using this cheap energy from California when it is available. In addition to storage and exports, expected increases in transportation and building electrification will likely increase demand and also provide a sink for the rapidly increasing amounts of renewable energy. The changes brought about by climate change may also reduce the curtailment of renewable resources. This can be seen in the reduction in curtailments that occurred in 2021 which was at least partially due to the reduction in hydro generation due to the ongoing drought. As temperatures in California increase it is expected that annual snowpacks will decrease reducing the amounts of hydro generation. Additional, climate change is expected to increase the volatility of weather, likely leading to more years with low hydro generation in the future.

The City has recently attempted to quantify the energy impacts of such supply side losses into three main categories: 1) curtailment risk; 2) counterparty risk; and 3) project cancellation risk. These risks, as previously discussed, pose the greatest impacts to the delivery of RPS energy. In addition to the historical curtailment analyses already discussed (and further elaborated on below), the City has examined forwarding looking data concerning curtailment risk as the likelihood the market forward curves are below -$15/MWh on an annual basis from the year 2022 to the end of the contract's life. Below this dollar amount, the City is likely better off financially curtailing the unit and purchasing additional renewable energy credits on the

secondary market. The figures presented in the column quantifying curtailment risk are calculated by taking the energy delivered to market and multiplying it by the likelihood of curtailment. *Based on the City's assessment of curtailment risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.*

Counterparty risk is the risk posed by a counterparty being unable or unwilling to honor their total RPS delivery obligations, as reflected in related contract documents. The City quantifies this likelihood by considering S&P Global's, Global Corporate Annual Default Rates by Rating Category (%) as a measure of organizational viability and financial stability. While this rate considers industries beyond the energy sector, it provides solid insights into the correlation and potential impacts of dealing with uncreditworthy counterparties. The likelihood of default by credit rating was averaged over the years from 2014 to 2019. These years were chosen to remove irregularities in default rates during the COVID-19 pandemic. If a counterparty was found to be unrated, then the contract was reviewed to identify specified credit assurances; based on such assurances, an approximate rating was derived based on experience and risk tolerance. *Based on the City's assessment of counterparty risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.*

The final category reflected in the City's analysis is project/contract cancellation risk. This category is distinct from the counterparty risk category because the risk of project/contract cancellation may only affect a single project under a counterparty's portfolio. Projects may be cancelled for a variety of reasons, but in today's market economy, deals struck several months to a year ago may no longer be economic for the seller. It was assumed this risk only effects single source projects, which have yet to be constructed. These projects were chosen because they have a single point of failure unlike RPS energy purchased from a pool of resources (under a

portfolio-style purchase agreement in which there is generally more diversity amongst the sources of supply). Based on discussions with various counterparties and its industry knowledge, the City will assume this risk effects 1 in 20 deals. *Based on the City's assessment of project failure/contract cancellation risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.*

Considering these categories holistically, the City is able to derive a cumulative energy percentage at risk. To add to the City's conservative tolerance for risk, a top-level risk of non-delivery offset at 0.25% of renewable energy procurements will be added to the calculated energy at risk percentage. This adder will help to express risks the City cannot foresee and help to better guarantee full compliance through the assumption of lower than expected RPS deliveries (which will necessitate higher levels of RPS procurement, via renewable energy planning reserves). The percentage of renewable energy and error is the percentage of total renewable energy procured, while the percentage of retail load is the energy at risk as a percentage of retail load. These "at risk" percentages reflect possible losses which, through no fault of the City, may occur by virtue of being a market participant. These losses pose a risk for non-compliance relative to the City's RPS goals and targets. Since this number is not a guaranteed loss, the City will implement the previously mentioned mitigation strategies to give the greatest chance of full market delivery and compliance.

ID	Contract	RPS Contract ID	Energy	Delivery & Market Risks		
			Energy to be Delivered to Market (MWh)	Curtailment Risk (MWh)	Counterparty Risk (MWh)	Project Cancellation Risk (MWh)
1	Contract 1373	0	108,000	-	2,076	-
2	Contract 1379	0	283,500	-	5,449	-
3	Contract 1380	0	167,737	396	3,224	-
4	Contract 1691	0	445,375	1,053	8,560	-
5	Contract 1804	0	5,000	-	-	-
6	Contract 2102	0	52,920	-	1,017	-
7	Contract 2532	0	12,000	-	231	-
8	Contract 2687	0	310,260	-	5,963	-
9	Contract 2802	RMEA70019	464,100	-	8,920	-
10	Contract 2971	RMEA90020	13,000	-	-	-
12	Contract 3708	RMEA90028	60,000	-	1,153	-
Total			**1,921,893**	**1,449**	**36,593**	**-**

Energy

Total Renewable Energy	**1,921,893**
Total Renewable Energy at Risk	**38,042**
Pct of Renewable Energy at Risk	**1.98%**
Pct of Unknown Error at Risk	**0.25%**
Pct of Renewable Energy & Error at Risk	**2.23%**
Pct of Retail Load	**1.27%**

Based on the City's analysis and in consideration of the City's current RPS supply portfolio delivering through 2030, the City determined that 1.98 percent of its expected future RPS deliveries may be at risk, which equates to 1.27 percent of the City's retail load. These percentages reflect average risk throughout the study period, which suggests that actual risk could fall somewhat above these percentages. Regardless, the potential risk-related impacts to the City's RPS supply portfolio fall well below the 3.3-5.6 percent MMoP (measured as a percentage of retail load) reflected in its RPS planning process. The City is also aware of other risk categories, including supply chain risk, technology risk and resource intermittency risk, which have also been considered qualitatively as part of the City's risk assessment. At this point in time and in consideration of the City's existing contractual commitments, the risks within

these categories are generally low. Supply chain risk, for example, would be a relevant concern if the City had significant supply commitments from renewable generating resources that had yet to achieve commercial operation, but there is no exposure in this regard. Technology risk, meaning the risk that future technological enhancements will result in the maintenance of a renewable supply portfolio that is meaningfully comprised of obsolete resources (based on ongoing technological enhancements that reduce the incremental cost of future renewable energy purchases relative to existing technologies), is a legitimate concern, but given the time-sensitive and inflexible nature of California's RPS compliance mandates, there are very limited alternatives when constructing renewable energy portfolios. To mitigate the risk of compliance shortfalls, the City must procure from available technologies, often over delivery terms of ten years or more, to satisfy applicable compliance mandates, so there is little opportunity to defer procurement activities while waiting for technological improvements to occur, particularly when considering the punitive financial penalties that can be assessed for falling short of applicable compliance mandates. While technological risk could be aptly categorized as medium or high, it is essentially unavoidable for new and small CCA enterprises. Over time, however, the City will ensure that it staggers contracted delivery terms and pursues technological diversity to reduce such risks to the greatest practical extent. The risk of resource intermittency is a legitimate concern, particularly for recently contracted VAMO volumes, which, based on the City's understanding, will be delivered from a variety of intermittent renewable generating technologies. For its VAMO deliveries, the City will actively monitor actual deliveries relative to projections and will reassess this risk category based on its observations in this regard – to the extent that intermittent technology types regularly produce less volume than anticipated, the City may be motivated to increase its MMoP or incorporate other planning adjustments. The balance

of the City's existing RPS portfolio is diversified through substantial commitments to fixed-volume contracts, so intermittency risk is only relevant for a relatively small portion of its RPS supply portfolio. *In consideration of the results of the City's risk analysis, the composite risk assessment, which considers all of the previously described risk categories, results in an overall risk rating of low.* As the City's RPS supply portfolio evolves, including the addition of future long-term VAMO supply, the City will update its risk assessment and advise the Commission of related results.

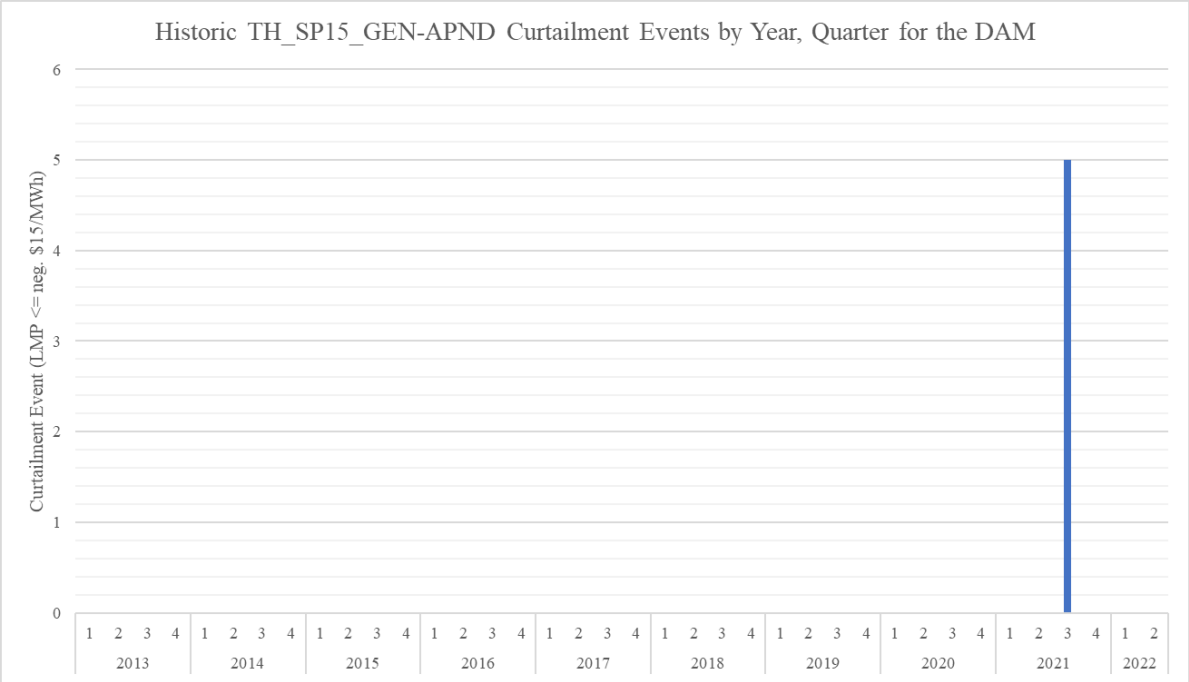
As previously mentioned, the City has also analyzed historical data on curtailments in the CAISO energy markets. In the CAISO energy markets, much of the curtailment of renewable resources is achieved through the market process because of renewable energy resources voluntarily submitting bids into the energy markets which cause them to shut down when market conditions create low energy prices. Because of this structure the curtailment data provided will also be indicative of when negative prices occur. The City recognizes this connection and thus the analysis above as to why curtailments are not expected to increase as they have over the past few years also informs expectations of negative prices. As explained elsewhere in this document, the City has taken steps through its contracting to reduce its risk exposure to low prices and curtailment of renewable resources.

Annual Curtailments (MWh)			
		Wind	Solar
2018		28,686	432,357
2019		43,557	921,684
2020		90,276	1,497,220
2021		78,477	1,426,326
Annual Curtailment (% of specific generation)			
2018		0.17%	1.56%
2019		0.27%	3.22%
2020		0.56%	4.99%

2021		0.41%	4.19%
Annual Curtailment (% of Load)			
2018		0.013%	0.191%
2019		0.020%	0.420%
2020		0.041%	0.683%
2021		0.036%	0.647%

The City has also analyzed negative prices in the CAISO, as these can greatly affect the siting and operation of CCA owned and contracted assets. The City has endeavored to quantify the occurrence of such events to help limit their financial and regulatory impact. With limited means of forecasting such events, the City has assembled this additional historic analysis with the average results being used in the City's forecasting assumptions for curtailment events.

Below are several charts which illustrate the number of historic curtailment events. The City defines a curtailment event as the times the location marginal price (LMP) drops below negative $15/MWh. It is assumed below this price it is financially prudent to curtail a renewable generators energy production and procure renewable energy credits (RECs) on the secondary market. Estimates for the real-time market (RTM) have been averaged over the hour, so only the average price is evaluated.


Historic TH_SP15_GEN-APND Curtailment Events by Year, Quarter for the DAM
Curtailment Event (LMP <= neg. $15/MWh)
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

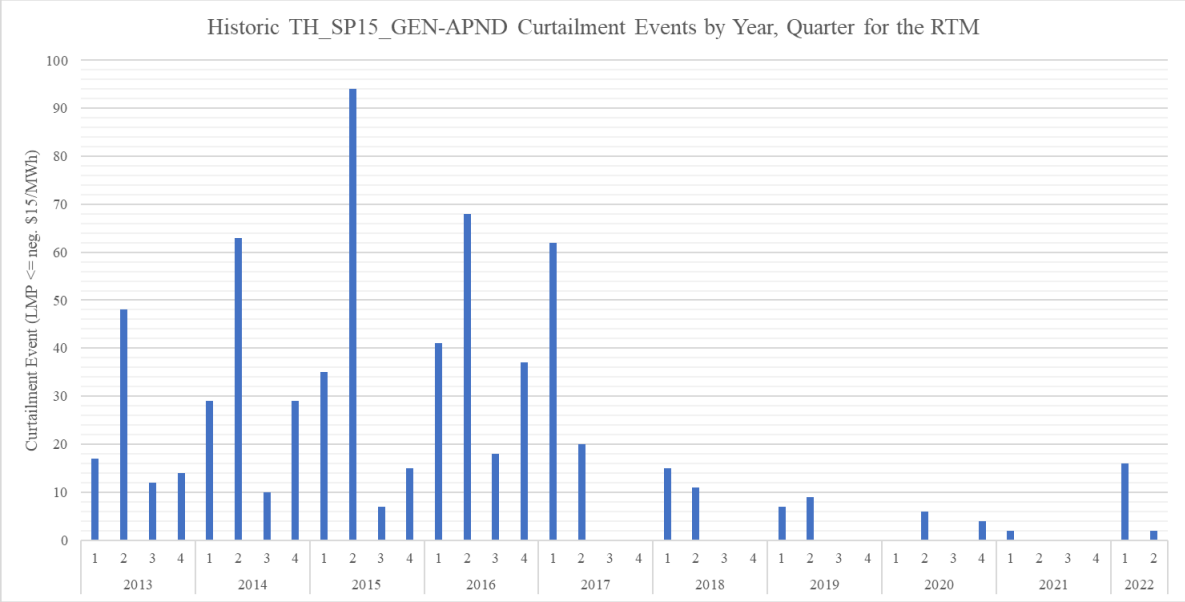

Historic TH_SP15_GEN-APND Curtailment Events by Year, Quarter for the RTM
Curtailment Event (LMP <= neg. $15/MWh)
0
10
20
30
40
50
60
70
80
90
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

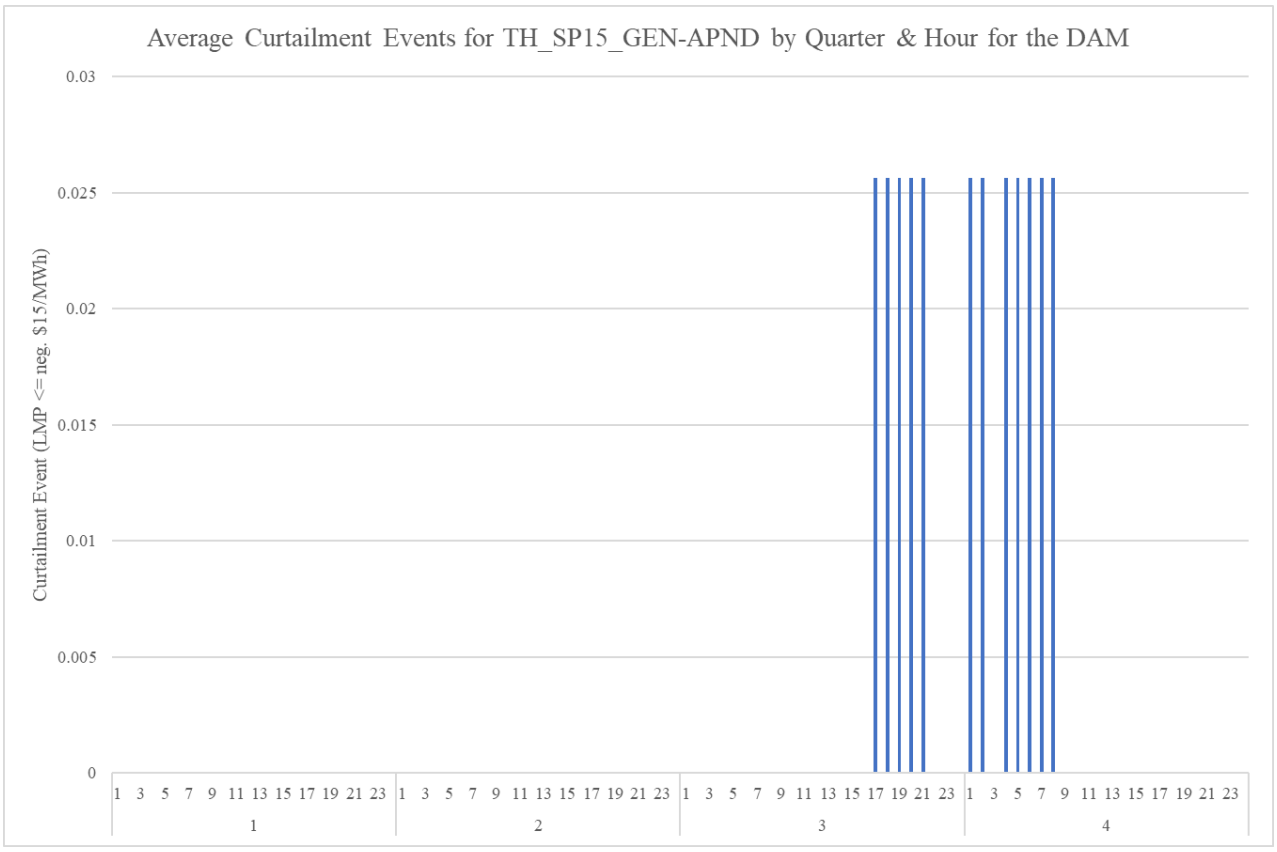
Table: SP15 DAM Curtailment Events by Year, Quarter, & Hour

	2013				2014				2015				2016				2017				2018				2019				2020				2021				2022	
	Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter	
Hour	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**
1	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	0	0	0	0	0	0	0	0	0	0	0
2	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	0	0	0	0	0	0	0	0	0	0	0
3	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	0	0	0	0	0	0	0	0	0	0	0
4	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	0	0	0	0	0	0	0	0	0	0	0
5	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	0	0	0	0	0	0	0	0	0	0	0
6	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	0	0	0	0	0	0	0	0	0	0	0
7	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	0	0	0	0	0	0	0	0	0	0	0
8	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	0	0	0	0	0	0	0	0	0	0	0
9	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	0	0	0	0	0	0	0	0	0	0	0
10	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	0	0	0	0	0	0	0	0	0	0	0
11	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	0	0	0	0	0	0	0	0	0	0	0
12	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	0	0	0	0	0	0	0	0	0	0	0
13	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	0	0	0	0	0	0	0	0	0	0	0
14	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	0	0	0	0	0	0	0	0	0	0	0
15	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	0	0	0	0	0	0	0	0	0	0	0
16	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	0	0	0	0	0	0	0	0	0	0	0
17	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	0	0	0	0	0	0	0	1	0	0	0
18	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	0	0	0	0	0	0	0	1	0	0	0
19	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	0	0	0	0	0	0	0	1	0	0	0
20	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	0	0	0	0	0	0	0	1	0	0	0
21	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	0	0	0	0	0	0	0	1	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0
23	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	0	0	0	0	0	0	0	0	0	0	0
24	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	0	0	0	0	0	0	0	0	0	0	0
Total Quarter	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	0	0	0	0	0	0	0	5	0	0	0
Total Year	0				0				0				0				0				0				0				0				5				0	

Table: SP15 RTM Curtailment Events by Year, Quarter, & Hour

	2013				2014				2015				2016				2017				2018				2019				2020				2021				2022	
	Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter	
Hour	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**
1	0	1	0	0	1	0	0	4	1	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	4	1	1	1	2	1	3	3	1	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	9	4	3	3	7	0	3	4	3	0	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	5	2	0	7	9	2	3	2	6	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2	7	1	1	1	4	1	2	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	4	3	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	2	2	1	0	0	4	1	0	0	1	0	0	1	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
8	0	1	0	0	0	2	2	0	0	3	1	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	2	5	0	1	0	5	1	0	4	12	1	1	3	5	4	2	5	4	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
10	0	6	1	2	3	7	1	1	2	8	3	3	2	9	5	6	10	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11	2	1	1	2	4	8	1	3	3	5	1	1	3	11	4	5	7	1	0	0	1	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0
12	1	0	0	1	2	3	0	4	2	6	0	2	4	3	2	10	5	2	0	0	1	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	1	1
13	0	1	0	1	2	1	0	2	2	4	0	2	4	3	1	3	2	1	0	0	1	1	0	0	1	1	0	0	0	1	0	1	0	0	0	0	3	0
14	1	0	0	1	2	1	0	0	2	6	0	1	4	6	1	6	5	2	0	0	2	0	0	0	4	1	0	0	0	1	0	1	1	0	0	0	3	1
15	1	2	0	1	1	3	0	1	2	6	0	2	5	7	1	4	7	2	0	0	3	1	0	0	1	2	0	0	0	1	0	0	1	0	0	0	3	0
16	0	0	0	0	1	3	0	1	4	7	0	1	5	7	0	1	8	2	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0
17	0	0	0	0	1	2	0	0	1	9	0	0	4	3	0	0	2	2	0	0	4	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0
18	0	0	0	0	0	1	0	0	0	7	0	0	2	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
19	1	0	0	0	0	0	0	0	1	3	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	0
20	1	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	0	0	0	0	0	0	0	0	0	0
21	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	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	1	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	0	0	0
24	0	1	0	0	0	0	0	0	1	3	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Quarter	17	48	12	14	29	63	10	29	35	94	7	15	41	68	18	37	62	20	0	0	15	11	0	0	7	9	0	0	0	6	0	4	2	0	0	0	16	2
Total Year	91				131				151				164				82				26				16				10				2				18	

Using the historic data illustrated above, the City has created the below forecast to use when evaluating contracts and projects located in or near the LMP's area. This forecast helps the City to estimate the quantity of time energy will be curtailed from a renewable energy project.


Average Curtailment Events for TH_SP15_GEN-APND by Quarter & Hour for the DAM
Curtailment Event (LMP <= neg. $15/MWh)
0.03
0.025
0.02
0.015
0.01
0.005
0
1 3 5 7 9 11 13 15 17 19 21 23
1
2
3
4

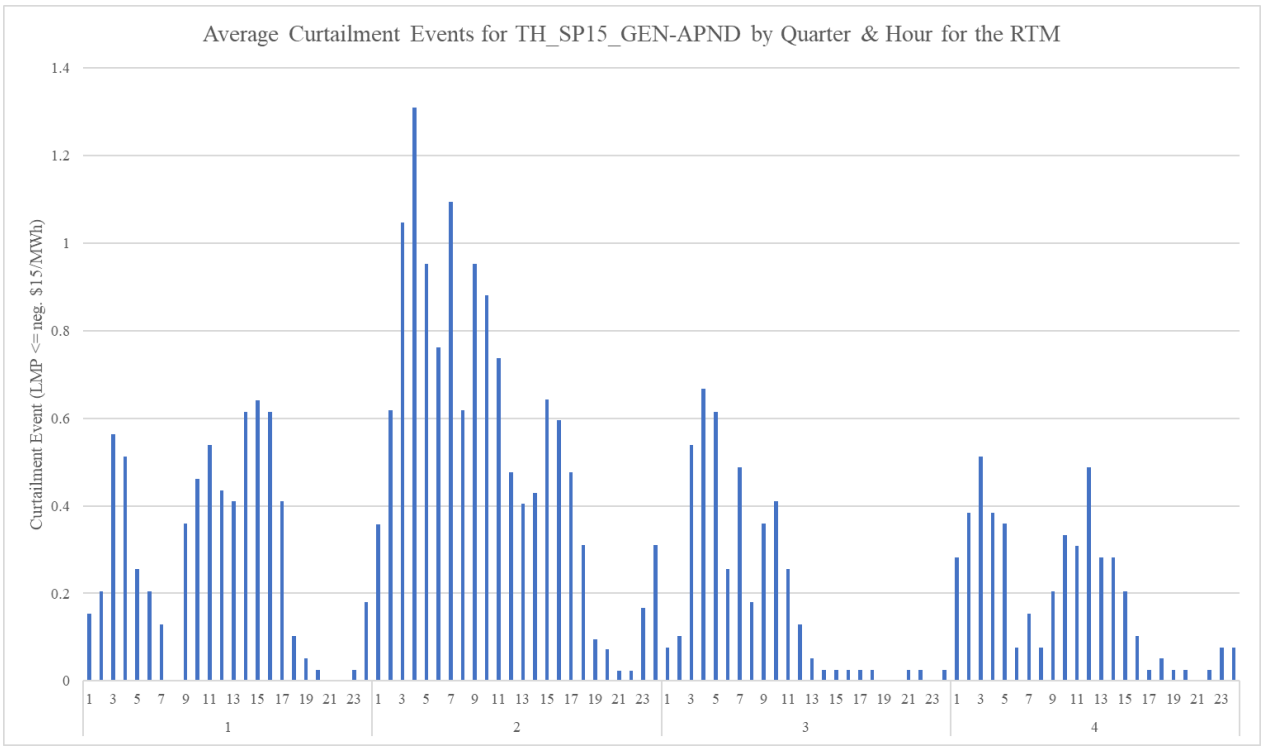

Average Curtailment Events for TH_SP15_GEN-APND by Quarter & Hour for the RTM
Curtailment Event (LMP <= neg. $15/MWh)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1 3 5 7 9 11 13 15 17 19 21 23
1
2
3
4

Table: TH_SP15_GEN-APND Average DAM Hourly Curtailment Event Forecast

	Quarter			
Hour	**1**	**2**	**3**	**4**
1	0.00	0.00	0.00	0.03
2	0.00	0.00	0.00	0.03
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.03
5	0.00	0.00	0.00	0.03
6	0.00	0.00	0.00	0.03
7	0.00	0.00	0.00	0.03
8	0.00	0.00	0.00	0.03
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00
17	0.00	0.00	0.03	0.00
18	0.00	0.00	0.03	0.00
19	0.00	0.00	0.03	0.00
20	0.00	0.00	0.03	0.00
21	0.00	0.00	0.03	0.00
22	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00
Total Quarter	0.00	0.00	0.01	0.01
Total Year	0.01			

Table: TH_SP15_GEN-APND Average RTM Hourly Curtailment Event Forecast

	Quarter			
Hour	**1**	**2**	**3**	**4**
1	0.15	0.36	0.08	0.28
2	0.21	0.62	0.10	0.38
3	0.56	1.05	0.54	0.51
4	0.51	1.31	0.67	0.38
5	0.26	0.95	0.62	0.36
6	0.21	0.76	0.26	0.08
7	0.13	1.10	0.49	0.15
8	0.00	0.62	0.18	0.08
9	0.36	0.95	0.36	0.21
10	0.46	0.88	0.41	0.33
11	0.54	0.74	0.26	0.31
12	0.44	0.48	0.13	0.49
13	0.41	0.40	0.05	0.28
14	0.62	0.43	0.03	0.28
15	0.64	0.64	0.03	0.21
16	0.62	0.60	0.03	0.10
17	0.41	0.48	0.03	0.03
18	0.10	0.31	0.03	0.05
19	0.05	0.10	0.00	0.03
20	0.03	0.07	0.00	0.03
21	0.00	0.02	0.03	0.00
22	0.00	0.02	0.03	0.03
23	0.03	0.17	0.00	0.08
24	0.18	0.31	0.03	0.08
Total Quarter	0.29	0.56	0.18	0.20
Total Year	1.22			

After examining the historical CAISO curtailment data, its risk analysis, and the analysis of negative pricing and curtailments, the City remains confident that the 2% minimum margin of procurement that it has institute provides the correct balance between risk management and excessive costs. The City will continue to monitor trends in the energy market, especially the curtailment levels of renewable resources, and if necessary, will adjust the minimum margin of procurement. Furthermore, the City has minimal exposure to delivery shortfalls related to project failure or delays due to the fact that its projects are already online.

Following contract execution, CalChoice will ensure that RMEA remains closely coordinated with RPS suppliers, particularly developers of any new-build resource, to maintain

an acute awareness of project development progress, including any anticipated issues that could delay expected initial deliveries or compromise overall project viability. Such communications are intended to provide the City with an early indication of such issues, which would allow "corrective procurement actions" to occur if the extent of such issues were determined to impact the City's RPS compliance status.

While other CCA programs may choose to pursue larger planning reserves, the City observes that there does not seem to be a clear standard or related guidelines for setting such metrics. As such, the City has considered core objectives of its CCA program when establishing this metric, including compliance with pertinent regulatory mandates, specifically California's RPS Program, as well as, and very importantly, rate competitiveness. The 2% planning reserve, which is applied annually based on the City's projected retail sales, creates an effective margin of over-procurement equivalent to 5.2% in 2022 (relative to the prevailing interim annual RPS procurement target in that year, as previously mentioned in Section II), transitioning to 3.3% in 2030 (relative to the 60% annual procurement target).

When considering the perceived sufficiency of the City's current planning reserve, it is also important to acknowledge the potential impacts on future retail sales imposed by the pandemic. Based on information provided by CalChoice and other CCA programs throughout the state, the City understands that there have been significant load reductions caused by current economic conditions. For renewable energy planning purposes, the City has yet to adapt its retail sales forecast to reflect such changes. Recent significant increases in inflation, and increases in interest rates to combat such inflation, are expected to slow the growth of the economy over the next few years. To the extent that that occurs and retail sales fall below expectations during CCA operations, the City is expected to accrue actual renewable energy volumes in excess of its planning targets (including reserves) and may have a margin of over-procurement that is meaningfully higher than the noted 2% (of retail

sales). Electric load within the City will be monitored over time to determine if related planning and procurement adjustments may be needed to protect the City from higher-than-anticipated renewable energy costs and related impacts to customer rates.

RMEA is aware that Section 399.13(a)(6)(A), and the ACR, note that generation variability and resource availability may impact the amount of future electricity delivered. As previously discussed, RMEA considers this potential risk during its planning process as well as during related procurement activities. The City may continue to pursue contract structures that promote volumetric stability through the application of firm delivery quantities and/or performance guarantees that provide financial remedies/penalties in the event of delivery shortfalls. If necessary, the application of such penalties could be used to: 1) as a first priority, procure additional renewable energy supply to address delivery shortfalls; or 2) in the event of a determination of non-compliance, offset the cost of related penalties. The City's intent is to achieve and maintain compliance with applicable RPS mandates, and the latter option is a last resort that is not expected to apply.

Furthermore, the City is aware of the need to perform a risk assessment in this RPS Procurement Plan and, as previously described, presents the results of such an initial assessment. At this time, and as previously noted, RMEA observes a risk management/assessment process that focuses on the identification and selection of highly experienced, financially viable renewable energy sellers, a process which is believed to materially reduce the risk of delivery shortfalls and potential compliance deficits.

RMEA continues to explore the use of quantitative tools to further understand these risks, as evidenced by the risk assessment included above. In the future, RMEA's risk management/assessment process will inevitably continue to evolve in consideration of its unique

renewable energy needs, market conditions, availability of requisite supply and ongoing track record in meeting California's RPS compliance mandates. For example, if RMEA believes that its understanding of responses to a future solicitation would improve through the use of a quantitative risk assessment tool, RMEA will accordingly pursue the use of such a tool. However, if the City and CalChoice believe that the current supplier selection process, which is intended to minimize/eliminate renewable energy delivery risk before contract execution occurs, results in the identification of: 1) low-risk supply sources that are already operational; or 2) highly experienced, financially viable project developers that have consistently demonstrated a successful development track record over time, then it may choose to forgo a related quantitative assessment as part of its risk management/assessment process. To the extent that noteworthy changes are made to such process, RMEA will describe them in a subsequent RPS Procurement Plan, if required to do so.

Because of its relatively small size, it is likely that RMEA will engage in a relatively small number of long-term renewable energy supply agreements, so a meaningful delivery shortfall (relative to expectations) or project development failure amongst such contracts would seemingly result in compliance-related deficiencies for the City (related to its long-term contracting obligation) – RMEA is aware of the financial consequences associated with such deficiencies but believes that the previously described evaluation process for prospective suppliers as well as planned procurement activities will ensure its success in meeting applicable compliance mandates. Similar issues seem less relevant with regard to short-term renewable energy purchases, as the market continues to remain robust for CCA buyers and related supply seems readily available. As previously noted, RMEA believes that a keen focus on identifying highly experienced, financially viable long-term renewable energy suppliers is the best risk

mitigation strategy for this important element of the RPS Program, and RMEA intends to observe this practice.

System Reliability

With respect to system reliability, the City is aware of the need to pursue a portfolio of renewable resources with diverse and complementary delivery profiles as well as complimentary infrastructure (namely, energy storage infrastructure) that will support the reshaping of renewable energy deliveries to better align with load. For example, renewable energy procurement efforts that may initially focus on relatively low-cost solar resources will often necessitate subsequent investments in co-located energy storage infrastructure and/or higher-cost baseload renewable generating technologies, such as those using geothermal, biomass and landfill gas fuel sources. These baseload renewable technologies are often priced at three-to-four times the level of in-state photovoltaic solar generation but generally provide increased capacity value (due to the more predictable, baseload generating profiles of such resources) and related reliability enhancements. By ensuring a better match of energy and load, as well as procuring resources more capable of providing ancillary services than intermittent renewable resources alone, the City seeks to mitigate potential negative system impacts such as rolling outages or violations of current standards for ancillary services. Certain of the resources that may be procured to satisfy recent capacity mandates are also expected to support grid reliability and may include baseload renewable energy resources, renewable energy plus storage configurations or stand-alone battery storage configurations, all of which would be expected to improve grid reliability by some measure. Over time, the City will balance the often competing interests of cost and reliability to support reasonably close alignment between supply and demand (reducing the need for pronounced resource ramping on the system), cost-effective procurement and

overall grid reliability. The City is aware that low-cost, long-term solutions are challenging to identify but will remain committed to pursuing a conscientious planning process that balances grid reliability, compliance demonstration and customer cost impacts.

The City is willing to engage in discussions with SCE and the California Independent System Operator regarding reliability and other system impacts related to its portfolio. The City is further willing to consider the feedback provided by these organizations in its planning and procurement processes going forward, so long as such suggestions generally conform with organizational objectives and Council-adopted policies. *In consideration of the City's increasingly diverse contractual commitments for requisite renewable energy supply and the organization's intent to focus on the identification of RPS-eligible and complementary technologies that will mitigate reliability impacts associated with increased use of intermittent generating resources throughout the state, overall risks to system reliability associated with the City's RPS Procurement Plan were determined to be low.*

Lessons Learned

In terms of lessons learned related to risk management, the City observes that internally adopted, above-RPS planning targets generally serve as effective mitigation measures related to RPS compliance. While setting lofty RPS targets is not a viable or desirable option for all retail sellers, the City will continue to evaluate the sufficiency of its adopted planning reserve (MMoP) to reduce the risk of RPS compliance shortfalls. If existing supply commitments happen to underperform or future RPS contracting activities impose larger than anticipated risks (such as project failure, commercial operation delays and/or under-delivery), the City may increase its noted planning reserve to provide additional protection against such risks. The extent to which such adjustments may occur is not known at this time but will be discussed, as necessary, in a

future RPS Procurement Plan.

The City has also observed the value of resource diversity across a broad spectrum of considerations, including resource location, generating technology, suppliers/developers and contract structures, amongst other concerns. Long-term renewable supply commitments are inherently risky in the sense that such commitments expose the buyer and/or seller to a variety of unknown circumstances, including but not limited to evolving market prices and policy changes. Throughout a long-term contract relationship, it seems evident that geographic areas with initially low levels of negative pricing (and related curtailment of energy production) can materially change as new project development activity occurs, creating (or exacerbating) conditions of over-supply and related incidents of energy curtailment. This risk is particularly challenging to manage, as California's escalating RPS procurement mandates necessitate ongoing investment in new renewable generating infrastructure, which is often sited in resource-rich areas that become oversaturated with similar generating technologies (and related delivery profiles). These circumstances seem inevitable and, over the course of a long-term supply relationship, may expose the contracted parties to unexpected risks, including negative prices (and related budgetary impacts) and curtailed deliveries (which may compromise the fulfillment of mandated procurement targets by the buyer). The City will reevaluate its current renewable energy planning reserve to address anticipated curtailment and/or underperformance risk associated with specific projects placed under contract.

The City is also aware that risk can be diversified through various contract structures. For example, an "index-plus" pricing structure is useful in transferring nodal/market price risk to the seller – in such structures, the buyer pays a fixed renewable premium, while the seller assumes risk associated with market price fluctuations but also receives market revenues (which

could be higher or lower than anticipated) – even though the buyer receives the energy, renewable attribute and (in certain instances) capacity value as part of such a transaction, the buyer's financial risk is generally limited to the payment of the renewable premium. For buyers who are averse to market price risk, the index-plus pricing structure effectively eliminates this concern but may result in higher overall contract costs (which may be acceptable, as a form of insurance, to mitigate market price exposure). In other structures, such as the "fixed-price" or "aggregate pricing" structure, the renewable energy premium and energy commodity (and oftentimes, capacity value) are reflected in a single price paid by the buyer – this structure deliberately allocates market price risk to the buyer, but the buyer may also pay a lower imputed renewable premium in instances where market revenues (realized when the energy commodity is delivered to the grid) closely approximate (or exceed) the aggregate renewable energy price. In evaluating potential contract structures, decisions can be made in consideration of risk allocation preferences, and the City has pursued (and will continue to pursue) contracting structures that balance such risks over time. To date, the City has pursued both structures and will continue to do so in the future.

VIII. Renewable Net Short Calculation

RMEA has provided an updated quantitative assessment, which is attached hereto as Appendix C, to support the qualitative descriptions provided in this RPS Procurement Plan. At this point in time and based on RMEA's historical supplier performance as well as anticipated renewable energy contracting outcomes, a conservative two percent risk adjustment, also referred to as the MMoP, has been incorporated in the quantitative assessment for "Online Generation" – this adjustment was informed by CalChoice's research regarding historical curtailments for wind and solar resources in the CAISO, as well as the risk analysis presented in

Section VII.; a risk adjustment of two percent has been incorporated for RPS Facilities in Development, but the City observes that there are no supply commitments in place with facilities that have yet to achieve commercial operation at this point in time . If actual output happens to differ from the City's expectations, it will incorporate a larger risk adjustment in a subsequent iteration of this RPS planning process. Additional adjustments will be incorporated in future quantitative assessments based on the unique characteristics of related supply agreements secured by the City. This update to the City's RPS Procurement Plan includes a revised RNS template that reflects the City's acceptance of certain long-term RPS allocations made available through the VAMO process.

IX. Minimum Margin of Procurement (MMoP)

The City is developing an electricity supply portfolio that will further the achievement of state mandates. The following table displays the City's intended margin of RPS over-procurement based on the differential between the SB 100 procurement targets and the City's internally adopted RPS procurement targets – this differential is defined as the City's voluntary margin of over-procurement, or VMoP. It is readily apparent that the City has decided to forgo voluntary incremental purchases of RPS-eligible renewable energy, which is reflective of the prevailing priorities of the City's customer base and leadership: these priorities place an emphasis on rate competitiveness and local control, rather than heightened levels of RPS procurement. This decision should not be construed as a reflection of the City's commitment to fulfilling statewide RPS mandates. As further described below, the City has incorporated an RPS planning reserve, described as its minimum margin of procurement, or MMoP, to do just that.

State & Internally Adopted Renewable Energy Requirements

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SB 100 RPS Procurement Requirement (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Internally Adopted RPS Procurement Target (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Voluntary Margin of Procurement (% of Retail Sales)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

As previously noted, the City's core goals and objectives emphasize the important of rate competitiveness and, therefore, the organization has adopted prudent RPS planning reserves without a VMoP. To address RPS compliance risk, the City uses its risk assessments, including its renewable net short calculations and curtailment analysis, to establish a Minimum Margin of Procurement to guide RPS compliance procurement planning. The City calculated the minimum margin of procurement, or MMoP, using a 2% risk adjustment (or planning reserve) that was applied to the City's annual retail sales estimates in each year of the planning period. Based on the manner in which the City has established its MMoP, as a 2% planning risk adjustment relative to statewide RPS mandates, the effective MMoP percentages observed by the City range from 3.3% to 5.2%, relative to the City's projected RPS compliance need, over the ten-year planning horizon. The following chart provides additional detail regarding the effective MMoP percentages observed by the City.

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SB 100 RPS Procurement Requirement (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Internally Adopted RPS Procurement Target (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Margin of Procurement (% of Retail Sales)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RMEA's Minimum Margin of Procurement (% buffer relative to RPS Mandate)	5.6%	5.2%	4.8%	4.5%	4.3%	4.1%	3.8%	3.7%	3.5%	3.3%	3.3%	3.3%

The City's MMoP is intended to address potential delivery variability for intermittent resources, curtailment risk, project delays and other operational peculiarities that may cause actual renewable energy deliveries to deviate from projections. Note that certain of the City's

renewable energy deliveries are not subject to variability – such agreements reflect minimum fixed delivery quantities (or quantities with limited volumetric variability) with corresponding financial penalties (paid to the City by related sellers in the event of delivery shortfalls).

Presently, the renewable energy procurement targets reflected in the City's planning process reflect moderate, but prudent, planning reserves to allow for certain demand- and supply-side variability that could impact RPS compliance achievement. The targets reflected within this RPS Procurement Plan reflect state mandated RPS procurement targets as well as the previously described two percent planning reserve. Staff assumes that future renewable procurement targets (inclusive of planning reserves necessary to meet RPS mandates) will consider a variety of factors, including but not limited to, the operational status of prospective renewable energy facilities to be placed under contract, the experience and general development track record of each project development team (associated with new resources), resource size (capacity), the location of prospective generating resources (for new facilities) and impacts of over-procurement to the CCA program's procurement budget and customer rates. Such considerations, amongst others, will be evaluated by the City in determining whether the proposed two percent margin of over-procurement should be adjusted in the future. To the extent the City anticipates planning risk related to its renewable energy contract commitments, it will likely adjust its margin of over procurement accordingly.

IX.A. MMoP Methodology and Inputs

The City's MMoP is intended to address an RPS failure rate at or above that which is reflected in the renewable net short reporting template. In the event of contract under-deliveries, commercial operation delays and/or project failures, the MMoP should be sufficient to ensure the City is compliant with the RPS procurement requirements. As shown in Section VII above,

the City's MMoP of 2% exceeds the historical level of curtailments in the CAISO grid (shown as under 0.1% for wind and under 0.7% for solar), and also exceeds the City's risk assessment of RPS contracts (shown as 0.62% of retail load). The City's VMoP is the annual RPS-eligible minimum portfolio content identified in the City's internally adopted planning targets, which is currently equivalent to California's statewide RPS mandate.

As discussed in Section VIII, the City has incorporated risk adjustments to certain renewable energy delivery estimates associated with existing generating facilities. Achieving the City's MMoP necessitates higher levels of renewable energy procurement (ranging from 3.3% to 5.6% over the City's annual RPS compliance needs throughout the ten-year planning period), which accommodate the potential for delivery shortfalls (due to a variety of circumstances) while still allowing the City to meet prescribed RPS mandates.

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SB 100 RPS Procurement Requirement (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Internally Adopted RPS Procurement Target (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Voluntary Margin of Procurement (% of Retail Sales, based on difference between SB 100 mandate and RMEA's internally adopted RPS target)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
RMEA's Minimum Margin of Procurement (% of Retail Sales)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RMEA's Minimum Margin of Procurement (% buffer relative to RPS mandate)	5.6%	5.2%	4.8%	4.5%	4.3%	4.1%	3.8%	3.7%	3.5%	3.3%	3.3%	3.3%
RMEA's Aggregate Planning Reserve: MMoP + VMoP (% buffer relative to RPS mandate)	5.6%	5.2%	4.8%	4.5%	4.3%	4.1%	3.8%	3.7%	3.5%	3.3%	3.3%	3.3%

The City will effectively ensure its compliance with applicable RPS mandates by procuring in consideration of applicable RPS mandates, plus the City's adopted MMoP. The City offers participating customers a portfolio comprised of renewable energy products which minimally meet statewide RPS procurement mandates (approximately 38.5% in 2022). Staff understands that the City Council may periodically consider changes to the level of renewable energy included within the City's default retail service offering but also understands that such

content would not fall below statutory RPS mandates. If the City Council considers and adopts changes to its internal renewable energy procurement targets, the organization will accordingly update future RPS planning documents to reflect such changes.

Presently, the renewable energy procurement policy that has been adopted by the City Council specifies a renewable energy target that mirrors similar targets reflected in California's RPS Program, plus the previously described 2% planning reserve. As such, the City plans to gradually increase its procurement of RPS-eligible renewable energy over time, inclusive of the aforementioned planning reserve, which is intended to mitigate risks associated with under delivery and/or failed (or delayed) project development.

IX.B. MMoP Scenarios

The City plans to meet the annual program renewable goals reflected in the table presented in Section IX (above), including the MMoPs reflected therein. As reflected in this table, the City's anticipated MMoP percentages range from 3.3% to 5.6% across the 10-year planning period (relative to the prevailing interim annual RPS procurement mandate). During its bid evaluation and supplier selection processes, the City considers a variety of risks and believes that such risks are sufficiently addressed within its MMoP calculation – in consideration of the City's considerable reliance on fixed-volume renewable supply commitments, it has no reason to doubt the sufficiency of the MMoP reflected in its internally adopted RPS planning targets. This noted, if the City's resource planning and contract management processes happen to identify substantive concerns with the limited new-build renewable projects included/to be included in its supply portfolio, delivery shortfalls or other issues potentially impacting the proportionate level of renewable energy reflected in its aggregate supply portfolio, the City will engage in expedited procurement processes to address such shortfalls (as a near-term solution) and also reevaluate the sufficiency of its MMoP (as a longer-term solution). As demand- and supply-side data are

monitored in each year, the City may adjust planned short-term purchases and/or pursue surplus sales arrangements if actual renewable energy deliveries are tracking above its anticipated needs. By the end of each calendar year, the City hopes to manage the level of its internal planning reserve so that actual renewable energy deliveries are closely aligned with California's RPS Procurement Target.

The City will also model demand-side sensitivities that may impact MMoP calculations. In addition to load variability resulting from ongoing (minor) fluctuations in customer participation, the City will also monitor electric vehicle penetration rates, net energy metering participation rates and other considerations that may impact overall customer energy requirements and related MMoP calculations

X. Bid Solicitation Protocol

X.A. Solicitation Protocols for Renewables Sales

RMEA does not have immediate plans to issue a solicitation for sales of renewable energy products. If such a need arises in the future, however, the City will consider a protocol that: 1) ensures the City remains compliant with applicable RPS procurement mandates; 2) minimizes overall portfolio costs to the greatest extent practical; and 3) provides sufficient flexibility to accommodate reasonably anticipated supply-side and demand-side changes that could impact the City's overall renewable energy requirements.

X.B. Bid Selection Protocols

Consistent with Section 399.13(a)(6)(C), CalChoice, on behalf of RMEA, shall conduct solicitations for requisite energy resources, including specific needs for eligible renewable energy products (reflecting locational preferences, when applicable, for such resources), generating capacity, and required online dates to assist in determining what resources fit best

within the City's supply portfolio. CalChoice provides necessary analytical support and advisory services to RMEA during such processes. Since CCA program governing boards are comprised of local elected officials, these solicitations and, in particular, related procurement decisions are overseen by elected representatives of the community with guidance provided by CalChoice. Such solicitations and procurement decisions will seek to comply with locally-set targets that tend to exceed applicable RPS mandates and provide value to the community by supporting increased use of renewable energy resources. Any long-term renewable energy supply agreements resulting from RMEA's participation in CalChoice-administered solicitation processes will be brought to the City's Governing Council for approval prior to execution.

Through its relationship with CalChoice, the City is actively engaged in developing solicitation protocols for requisite renewable energy supply and has incorporated a variety of considerations in related bid requirements. Pursuant to Public Utilities Code 399.13(a)(6)(C)[3] and discussions with CalChoice, these considerations, which will be focused on solicitation protocols, bid evaluation and supplier selection, include:

1. Overall quality of response, inclusive of completeness, timeliness, and conformity;
2. Price and relative value within the City's supply portfolio;
3. Project location and local benefits;
4. Project development status, including but not limited to progress toward interconnection, deliverability, siting, zoning, permitting, and financing requirements;
5. Qualifications, experience, financial stability, and structure of the prospective project team (including its ownership);
6. Environmental impacts and related mitigation requirements, including impacts to air pollution within communities that have been disproportionately impacted by the existing generating fleet;
7. Potential impacts to grid reliability;

[3] Cal. Pub. Util. Code § 399.13(a)(6)(C) ("Consistent with the goal of increasing California's reliance on eligible renewable energy resources, the renewable energy procurement plan shall include all of the following: A bid solicitation setting forth the need for eligible renewable energy resources of each deliverability characteristic, required online dates, and locational preferences, if any.").

8. Potential economic benefits created within communities with high levels of poverty and unemployment;
9. Acceptance of the City's standard contract terms; and
10. Development milestone schedule, if applicable.

When evaluating future long-term renewable purchase opportunities, the City will also consider "the employment growth associated with the construction and operation of eligible renewable energy resources." More specifically, to the extent the City procures new RPS resources in solicitations where qualitative factors are considered, it will include a qualitative assessment of the extent to which proposed project development activities will support this goal. Such determinations will be based on information provided by the prospective supplier and the City's independent assessment of such information. When the City procures RPS resources, it will require bidders to submit information on projected California employment growth during construction and operation. This data will include the expected number of hires, duration of hire, and an indication of whether the bidder has entered into Project Labor Agreements or Maintenance Labor Agreements in California for the proposed project.

Pursuant to Public Utilities Code 399.13(a)(8)(A), the City will also consider the inclusion of evaluative preference for "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."[4] To the extent that the City procures RPS resources through solicitations where qualitative factors are considered, impact on disadvantaged communities will be considered.

[4] Cal. Pub. Util. Code § 399.13(a)(8)(A) ("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.").

Such information will be gathered by requiring prospective suppliers to answer the following questions: Is your facility located in a community afflicted with poverty or high unemployment or that suffers from high emission levels? If so, the participant will be encouraged to describe how its proposed facility can provide the following benefits to adjacent communities:

- Projected hires from adjacent community (number and type of jobs);
- Duration of work (during construction and operation phases);
- Projected direct and indirect economic benefits to the local economy (i.e., payroll, taxes, services);
- Emissions reduction – identify existing generation sources by fuel source within 6 miles of proposed facility and indicate whether the proposed facility will replace/supplant the identified generation sources; and
- To the extent that the proposed generating facility is expected to replace/supplant an existing generating facility, the prospective supplier will be asked to quantify the associated emission impacts of this transition.

Certain of these considerations were incorporated during the evaluation of responses submitted through CalChoice's recent solicitation for long-term renewable energy supply; others will be reflected in future solicitations, as appropriate. Based on the success of its ongoing solicitation process(es), RMEA may adapt these considerations.

As described in CalChoice's *Supplier Diversity 2021 Annual Report and 2022 Annual Plan*, the CalChoice members are assessing steps to improve the participation of small, local, and diverse business enterprises, including those owned by women, minorities, disabled veterans, and members of the LGBTQ community ("WMDVLGBTBE"), in CalChoice's renewable

solicitations.[5] The City seeks to achieve this goal while complying with the competing requirements of California Proposition 209. In future RPS Procurement Plans, the City, through CalChoice, will consider revising its solicitation protocols, bid evaluation, and supplier selection consistent with this assessment.

Consistent with the direction in the ACR, RMEA has provided a copy of its most recent solicitation materials to Commission Energy Division staff. RMEA's most recent solicitation information is available at the following website: https://californiachoiceenergyauthority.com/our-services/.

X.C. LCBF Criteria

The Least-Cost Best Fit 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 IOUs and the Commission does not have jurisdiction over the solicitation protocols of CCAs. However, consistent with Section 399.13(a)(9),[6] RMEA considers best-fit attributes to help minimize overall renewable energy procurement costs while generally supporting electric grid reliability.

In particular, the City anticipates considering "least cost best fit" ("LCBF") during the evaluation of responses to its future renewable energy solicitation(s). From the City's perspective, use of the term "costs" should appropriately include considerations beyond the basic price of renewable energy. More specifically, costs should include a broad range of considerations, such as: (1) reputational damage resulting from failure to meet state-mandated and/or internally established renewable energy procurement targets; (2) compliance penalties

[5] *See* CalChoice *Supplier Diversity 2021 Annual Report and 2022 Annual Plan*, March 1, 2022, at 16.
[6] 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.").

resulting from failed project development efforts or delivery shortfalls; (3) administrative complexities related to dealing with inexperienced suppliers (such as prolonged contract negotiation processes and uncertainties related to project milestone timing and achievement); and (4) impacts to planning certainty resulting from higher risk projects. These factors, as well as various others, will be considered by the City as components of its cost evaluation processes, which may lead to the selection of offers that aren't necessarily the lowest cost option(s), as expressed on a dollar-per-MWh basis. With regard to "fit", this aspect of a prospective supply opportunity has as much to do with compatibility (between the City and its suppliers) and alignment with key local objectives as it does with balancing customer usage and expected project deliveries, particularly when considering long-term contracting opportunities that will necessitate a constructive working relationship over a period of ten years or more. The City also interprets the term "fit" to mean the general suitableness of a project opportunity in promoting grid reliability – while the City has no explicit operational or maintenance responsibilities related to the local distribution system serving its customers or the bulk electric system at large, it is aware of the profound importance of supporting grid reliability through its procurement processes. With this in mind, the City will make best efforts to balance the demands of California's rigorous RPS compliance mandates with its interest in promoting such reliability. This is no small task, and the City expects that considerations related to grid reliability will be incorporated at each stage of its planning and procurement processes but also acknowledges that the full scope of its RPS contract/resource portfolio (including related impacts to grid reliability) will significantly evolve throughout the organization's operating history. Over time, the City expects to thoughtfully assemble a diversified portfolio of RPS contracts/resources that will not only contribute to the City's achievement of applicable

compliance mandates but also to improved stability and reliability of California's electric system. As such, the City's LCBF methodology will consider a broad range of components, including those previously noted, balancing a variety of pertinent considerations at the time each renewable purchase opportunity is being evaluated.

Additionally, the requirement of Section 399.13(a)(9) to give preference to renewable projects located in certain communities is expressly only applicable to "electrical corporations" and is not mandatory for CCAs.[7] However, the City recognizes the need to help mitigate the impacts of air pollution in regions of the state where communities have been disproportionately impacted by the existing generating fleet as well as the need to bring economic benefits to communities with high levels of poverty and unemployment. Consistent with this recognition, the City will consider the manner in which air pollution may be impacted during its renewable energy solicitation process(es) and related project selection.

XI. Safety Considerations

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

As the City pursues future renewable energy purchases, it will consider requiring verbiage addressing adherence (of the seller/project operator) to prudent electrical practices and

[7] Cal. Pub. Util. Code § 399.13(a)(7)(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.").

applicable safety requirements, including compliance with laws and regulations relating to safety. During future contracting efforts, the City will perform an assessment of the supplier's willingness to include such provisions as well as any related impacts to pricing/cost – the City is aware that requesting more stringent processes and/or requirements may trigger requested price increases by the seller/supplier. To the extent that product pricing would meaningfully increase due to the inclusion of such provisions, the City would need to evaluate budgetary impacts and other risks before proceeding. The City is hopeful that most suppliers will be agreeable to the inclusion of such provisions and will be diligent in requesting such language in its future contracts. In addition, RMEA has provided additional information below on its existing safety practices.

XI.1. Wildfire Risks and Vegetation Management

In negotiating contracts with renewable generating facilities, RMEA works to ensure that the facility operator complies with all relevant safety requirements associated with the maintenance and operation of the facility. In these agreements, RMEA includes contract provisions that require the counter party to operate and maintain the facility in compliance with all relevant laws and prudent operating practices.

At this point in time, the City has yet to adopt specific procurement policies or preferences focused on the acquisition of forest biomass resources. The City is aware of the mitigating impacts that biomass generators, which use forestry waste as feedstock, may have on wildfire risk and will consider the adoption of a related procurement policy in the future. Furthermore, the City does not believe that any of its contracts with specified renewable generating facilities are located within high fire risk areas. In the future, the City will coordinate with CalChoice when considering project locations that may be located in fire-prone regions as

well as related risk adjustment factors that may be appropriate for such facilities.

In future solicitations, RMEA will identify whether any of the bidding generating facilities are located within Tier 2 or Tier 3 of the Commission's Fire-Threat Map. When evaluating executing a contract with a facility located in Tier 2 or Tier 3, RMEA will consider requiring the seller to demonstrate that it taken adequate precautions associated with the facility's elevated risks, including specific wildfire prevention and safety measures for any construction, operation, and maintenance activities.

XI.2. Decommissioning Facilities

To date, the City has not developed any plans or requirements related to the disposition of generating facilities following completion of applicable delivery terms. RMEA's contracts with renewable generating facilities generally require that the facility operates in compliance with all applicable laws and prudent operating practices. The City assumes this broad terminology generally entails the safe disposition of assets following expiration of their useful life (to the extent that the useful life of such facilities expires at the same time as the noted delivery term involving RMEA). This noted, the duration of RMEA's renewable energy supply commitments is expected to be shorter than the useful life of most, if not all, facilities place under contract, so it will be impractical for RMEA to monitor such activities after its relationship with suppliers has ended.

For future contract negotiations, RMEA will evaluate requiring the seller to provide a project safety plan or a similar type of reporting document, which will include information on procedures for identifying and remediating safety hazards, as well as describing any relevant requirements (such as those associated with the permitting of the facility) for the decommissioning of the facility.

XI.3. Climate Change Adaptation

The City has not adopted procurement policies or preferences relating specifically to climate changes risks. In future solicitations, the City will consider developing additional bid evaluation criteria based on climate change risks factors, including but not limited to risks associated with facilities located in regions that are forecasted to be impacted by higher instances of sea-level rise, flooding, wildfires, and/or elevated temperatures.

XI.4. Impacts During Public Safety Power Shut-off (PSPS) Events

While the City does not have any specific predictions regarding future impacts related to PSPS events, it is likely that a PSPS event impacting the City would marginally reduce retail electric sales for CCA customers and, as a result, would generate a very small increase in the proportionate share of renewable energy supply accruing to the City (if renewable supply agreements continue to perform as expected during such events).

RMEA is considering the need to evaluate the impact of prior PSPS events on its renewable generating facilities (under contract) to quantify the amount of generation that was lost due to the facility being taken offline by a PSPS event. RMEA may also assess the risk of the loss of future generation associated with PSPS events both for facilities already online and for facilities under development. RMEA's preliminary assessment is that the total quantity of any PSPS-related reductions in RPS-eligible generation (associated with the facilities in RMEA's portfolio) is likely minimal and generally offset by the reduction in retail sales (also related to the PSPS event). In light of this, the likelihood of a material impact to the City's renewable energy planning process or related performance metrics is extremely low.

XI.5. Biomass Procurement

While RMEA has no specific biases (for or against) biomass resources, the prospect of procuring such resources will be dependent upon offers received during future solicitation processes. In fact, the City has already entered into a long-term PCC3 supply agreement, which will be sourced from existing biomass facilities located within California – the RPS procurement opportunity was selected in consideration of: 1) product availability and the suitability of such product in the City's overall RPS supply portfolio; 2) cost-effectiveness; and 3) volumetric predictability (due to the anticipated baseload delivery profile associated with biomass generating resources). To date, biomass procurement opportunities have been limited, relative to other available renewable energy procurement opportunities, and have been comparatively costly (often 200%, or more, relative to pricing levels associated with other renewable generating technologies). To the extent that future biomass offers/proposals are competitive (with similar offers received from other resource types) and/or in the event the City adopts policies explicitly supporting the acquisition of biomass energy resources, it will consider further inclusion of biomass energy within its future renewable energy supply portfolio. Biomass procurement opportunities may also be considered as a means to increase resource adequacy capacity under contract.

XII. Consideration of Price Adjustment Mechanisms

In the future, and consistent with SB 350 and SB 100, RMEA will review the prospects of incorporating price adjustments in contracts with online dates more than 24 months after the date of contract execution. As noted in the ACR, such price adjustments could include price indexing to key components or to the Consumer Price Index. To date, incorporating such provisions has been challenging due to the inability of buyers and sellers to reach mutually agreeable terms related

to pricing adjustments.

XIII. Curtailment Frequency, Forecasting, Costs

This Section responds to the questions presented in Section 6.13 of the ACR[8] and describe RMEA's strategies and experience so far in managing RMEA's exposure to negative pricing events, overgeneration, and economic curtailment for RMEA's region and portfolio of renewable resources.

XIII.1. Factors Having the Most Impact on the Projected Increases in Incidences of Overgeneration and Negative Market Price Hours

RMEA continues to learn about California's evolving energy market, including information and considerations related to energy curtailment, potential cost impacts, contracting considerations and other concerns. The following represents RMEA'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 brought online throughout the western United States, the California Independent System Operator's ("CAISO") balancing authority area has experienced an increasing frequency and magnitude of curtailment and negative pricing events. As of the end of 2019, California had over 12,800 MW of solar, 9,400 MW of behind-the-meter solar, and 5,900 MW of wind.[9] 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 64.3% over the past 4 years (May 2018 to May 2022), and in May of 2022 the monthly maximum load served by wind and solar was just under 95%, while

[8] ACR at 33-34.
[9] California Energy Commission, Renewable Energy Tracking Progress, Feb. 2020, at 6, *available at* https://www.energy.ca.gov/sites/default/files/2019-12/renewable_ada.pdf.

the maximum 5-minute amount of all renewables serving load was 103.5%.[10] To address the resulting instances of over-supply, the amount of curtailment of wind and solar in the CAISO has significantly increased each year from 2015 through 2020, totaling 187,000 MWh in 2015, 308,000 MWh in 2016, 379,510 MWh in 2017, 461,043 MWh in 2018, 965,241 MWh in 2019, and 1,586,500 MWh in 2020.[11] For 2021, the total level of wind and solar curtailments was 1,504,803 MWh.[12] Curtailment typically occurs most frequently during the months of March, April, and May when hydroelectric generation is historically at its highest. Curtailment levels and percentages for the CAISO, as well as an analysis of negative prices and forecasted curtailments from those negative prices, were presented above in Section VII.

In the CAISO energy markets, much of the curtailment of renewable resources is achieved through the market process because of renewable energy resources voluntarily submitting bids into the energy markets, which cause them to shut down when market conditions create low energy prices. Because of this structure, the curtailment data provided will also be indicative of when negative prices occur. The City recognizes this connection and thus the analysis above in Section VII as to why curtailments are not expected to increase as they have over the past few years will apply to negative prices in a similar manner to curtailments. This has influenced CalChoice's ten-year negative price forecast, which mirrors the frequency of historical renewable energy curtailments. As explained elsewhere in this document, the City has taken steps through its contracting to reduce its risk exposure to low prices and curtailment of renewable resources.

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[10] CAISO, Monthly Renewables Performance Report, May 2022, *available at* *http://www.caiso.com/Documents/MonthlyRenewablesPerformanceReport-May2022.html*.
[11] CAISO, Managing Oversupply, Wind and Solar Curtailment Totals, updated June 6, 2021, *available at* *http://www.caiso.com/informed/Pages/ManagingOversupply.aspx*.
[12] See Curtailment table in Section VII above.

RMEA will continue to monitor this situation to the extent such circumstances are likely to impact contract administration and/or future procurement activities. If prospective renewable generating opportunities are located in areas that are prone to frequent instances of negative market pricing, RMEA will be sure to evaluate such data to better understand prospective financial impacts and/or pursue contractual pricing structures that will insulate the CCA program from such risks.

XIII.2. Written Description of Quantitative Analysis of Forecast of the Number of Hours Per Year of Negative Market Pricing for the Next 10 Years

Based on RMEA's existing renewable energy supply agreements, the CCA program has yet to incur exposure to negative price risk (related to requisite renewable energy transactions). Historical renewable energy deliveries have been priced on an index-plus basis, capping RMEA's financial exposure to the stated renewable energy premium in such contracts. RMEA recently began taking deliveries under new supply agreements (with 2021 and 2022 delivery start dates), which use both index-plus and fixed pricing structures. These contracts, however, reflect explicit negative pricing protections for the buyer, which cap RMEA's financial exposure at the stated bundled renewable energy cost. To the extent that negative pricing occurs, the sellers, which also serve as the scheduling coordinators under each supply agreement, would be responsible for such costs or could choose to pursue curtailment, if negative pricing was too punitive to justify facility operation. However, these contracts also reflect production guarantees, which would limit prospective curtailment activities based on a guaranteed minimum level of renewable energy production, below which the seller would be subject to payment of financial penalties to RMEA. Based on early-stage deliveries from these contracts, energy curtailments have not resulted in production deviations relative to the City's expectations – typical resource intermittency issues, however, have results in some variations from forecasted

production levels. RMEA has started monitoring nodal pricing levels associated with these contracts (see the analysis of negative prices provided above in section VII) and if negative prices become prevalent, the City will prepare a negative price forecast to assist in its understanding of future production deficits (that possibly occur under such scenarios) – because pricing conditions are prone to sudden and significant changes, the "shelf life" of such a forecast is expected to be very brief and subject to regular updates.

As described above, RMEA has evaluated historical curtailment trends for wind and solar generating technologies located within the CAISO footprint over the past four years and believes such data may be instructive in understanding the energy curtailment risk associated with these generating technologies into the future. CalChoice's ten-year negative price forecast mirrors the frequency of historical renewable energy curtailments. As described above, RMEA has taken this forecast of curtailment and negative pricing into consideration in developing its MMoP.

RMEA is aware that curtailment activities may reduce expected renewable energy deliveries, but based on historical nodal pricing adjacent to the noted wind resources, RMEA expects that curtailment activities will be limited. Moving forward, RMEA will continue to monitor historical prices at such nodes, and if instances of negative pricing become prevalent, it will prepare the noted forecast to better understand the periods of time during which curtailment activities may be more likely to occur (even though such activities would not impose direct financial impacts to RMEA). Any information/projections prepared by RMEA in this regard will be shared in a subsequent RPS Procurement Plan.

XIII.3. Experience, to Date, With Managing Exposure to Negative Market Prices and/or Lessons Learned from Other Retail Sellers in California

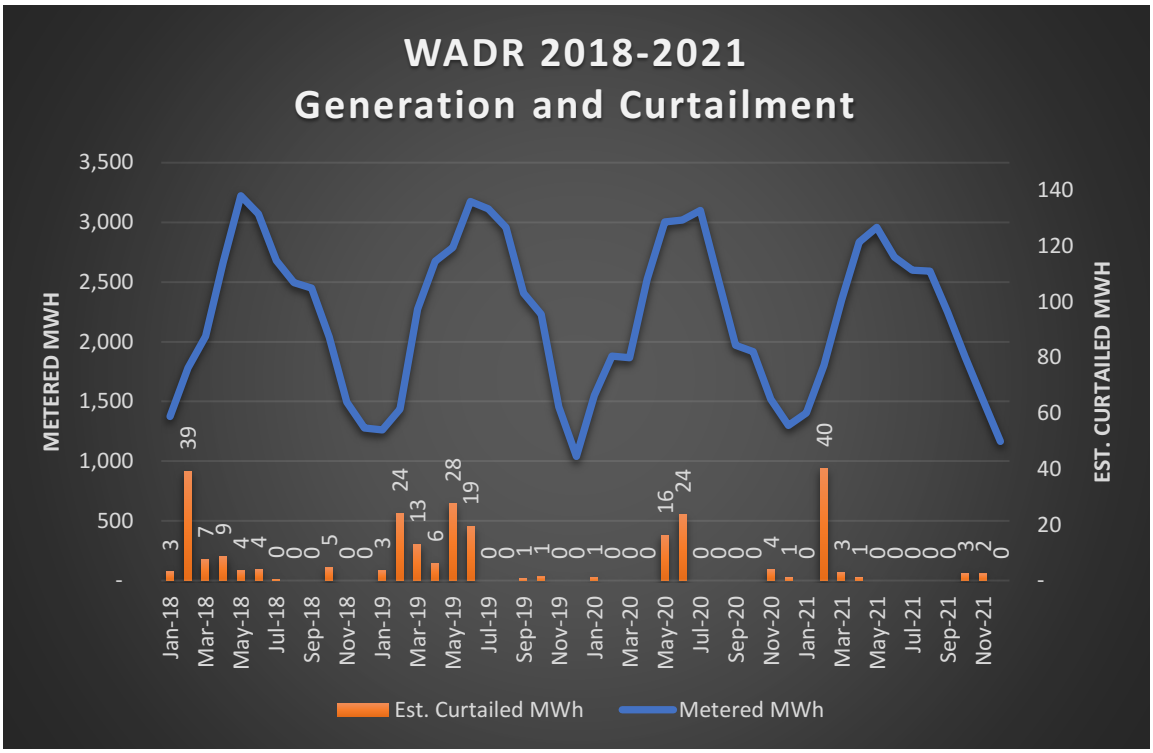
Based on RMEA's existing renewable energy supply agreements, historical renewable energy deliveries have utilized index-plus pricing structures and fixed/firm volumetric

commitments. As such, RMEA has not been previously exposed to negative price risk (related to its renewable supply portfolio) and has not needed to manage exposure to negative market prices. This approach to renewable energy contracting was deliberate, allowing RMEA to build operational experience and knowledge regarding California's energy market before pursuing contract structures that required a deeper understanding of market tendencies, increased data analysis and more intensive coordination with renewable energy suppliers.

Based on its association with CalChoice, which facilitates informational sharing and interagency coordination amongst its members, the CCA program has been made aware of LCE's ongoing experiences managing negative pricing and curtailment risk. LCE has advised CalChoice of the following information regarding its first long-term power purchase agreement with the 10 MW Western Antelope Dry Ranch ("WADR") photovoltaic solar facility, which is located in Lancaster. During its operating history with this renewable generating facility, LCE has experienced instances of negative pricing at certain points in time. Recent data suggests that such instances are more frequent during the Spring season (months of March, April and May) and, consistent with the CCA program's observations regarding curtailment reflected in Section XIII.1, indicates that suppressed pricing generally results from relatively strong solar production throughout the region, coupled with comparatively low energy usage (when moderate seasonal temperatures prevail). To the extent that California experiences strong regional hydroelectric production/imports, negative pricing pressures may be exacerbated.

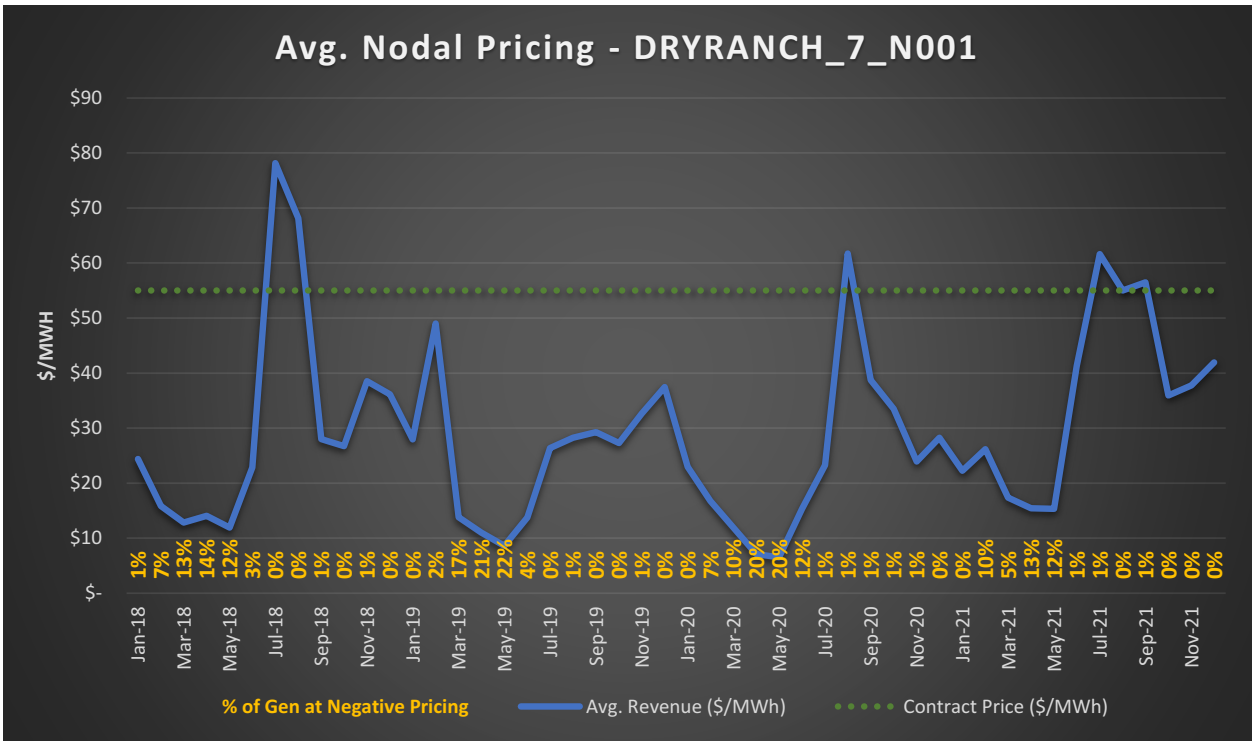
Based on 2018, 2019, 2020, and 2021 historical data, CalChoice observed that negative prices have impacted facility generation during 7% to 22% of solar-producing hours during the months of February, March, and April. Negative pricing in other months is far less prevalent, affecting facility generation on a limited basis (occurring during zero to 10% of hours in which

facility generation has occurred). In terms of curtailment, the CCA program understands that LCE has developed a bidding strategy with its scheduling coordinator that limits exposure to negative pricing based on a pre-determined bid floor (meaning, a pre-determined negative price, below which facility generation would be curtailed), but LCE has only experienced facility curtailments totaling 261 MWh over the aforementioned four-year period, or 0.2% of total potential energy production (which approximates 106,000 MWh during this same four-year period). The impacts of curtailment/negative pricing costs incurred by LCE have been similarly limited. The following chart indicates total monthly generation from the WADR facility during the 2018, 2019, 2020, and 2021 calendar years as well as estimated monthly curtailed MWh (note the differences in scale reflected on each axis).



Adjacent nodal pricing also remains relatively strong, despite substantial solar generation within the region. Average energy pricing at the DRYRANCH_7_N001 node, the basis for

WADR energy settlements, continues to show limited incidents of negative pricing. Over the four-year period reflected in CalChoice's analysis, average revenues collected by LCE for WADR-generated electricity are $28.39/MWh. The following chart reflects average nodal pricing during the 2018, 2019, 2020, and 2021 calendar years as well as the percentage of WADR generation occurring during periods of negative pricing.



Over time, CalChoice will continue monitoring pricing and curtailment data to determine if regional grid conditions are materially changing – four years is a relatively brief period of time for such an analysis, particularly when the composition of resources interconnected to California's bulk electric system continues to undergo significant changes, and while the City finds this information to be helpful, it is also mindful that such changes may substantially alter the trajectory of pricing data at this node. To the extent that negative prices become more severe (meaning, more deeply negative), the CCA program understands that LCE may adapt its bidding

strategy to limit potential financial impacts. Curtailed energy volumes will also be monitored by CalChoice over time, but based on MWh curtailed to date, the CCA program understands that LCE does not foresee any imminent concerns impacting its achievement of compliance with RPS procurement mandates. CalChoice is prepared to support similar data monitoring for other supply opportunities that may be pursued by its membership and will coordinate with such members regarding pertinent bidding strategies, as appropriate.

If the CCA program pursues supply agreements that could expose the organization to negative pricing and curtailment risk, the CCA program would consult with CalChoice to perform pertinent analyses that would be intended to bound prospective exposure (in terms of frequency and potential overall cost) related to negative pricing.

When RMEA pursues future supply agreements that could expose the organization to such risk, and before such procurement opportunities are executed, RMEA would consult with CalChoice to perform pertinent analyses that will be intended to bound prospective exposure (in terms of frequency and potential overall cost) related to negative pricing. Based on information/data derived through such analyses, RMEA would coordinate with CalChoice and its scheduling coordinator to develop a bidding strategy, if deemed necessary, that would create desired limitations to such negative price risk, acknowledging however, that any curtailment decisions (related to negative pricing) would reduce the expected quantity of renewable energy to be received from such contracts – such circumstances could necessitate supplemental procurement, if meaningful delivery shortfalls occur.

As for lessons learned from other retail sellers, RMEA continues to be aware that negative pricing can be particularly punitive in certain geographic regions, so it will need to carefully evaluate any new renewable supply opportunities in consideration of such risk or

pursue contract structures – RMEA is aware that pursuing firm/fixed delivery quantities, as opposed to as-available supply arrangements, can meaningfully reduce, if not entirely eliminate, concerns related to negative pricing (and related decisions to pursue curtailment). If RMEA gains additional insight based on future experience/exposure to negative pricing, it will share such information, if required to do so, in a future RPS Procurement Plan.

XIII.4. Direct Costs Incurred, to Date, for Incidences of Overgeneration and Associated Negative Market Prices

To date, RMEA's renewable energy procurement efforts and associated contracts have not resulted in the accrual of direct costs related to incidences of overgeneration resulting from negative pricing.

XIII.5. An 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 may be 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 the state to meet its environmental and energy policy goals. Additionally, these over-supply situations expose ratepayers to increased costs because their load serving entities must either economically curtail the generating resource (and often pay for the electricity that was not generated) or generate power and be exposed to negative prices. Because these conditions are largely driven by state 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. This includes the

expansion of the Energy Imbalance Market, improvements to the CAISO market design and structure, enhanced forecasting capabilities, time of use rates, improved electric vehicle charging functionalities, and smart deployment of distributed energy resources. The Commission's Integrated Resource Plan ("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.

RMEA will consider the impact of curtailment and negative pricing on its individual portfolio and will factor potential curtailment into its long-term planning, as appropriate. Due to the difficulty in accurately forecasting curtailment, RMEA will review available historical data on curtailment and negative pricing within regions where RMEA may contract for renewable generating resources – RMEA notes, however, that it only recent began taking energy deliveries under a contract that subject its organization to curtailment risk, so RMEA is currently gathering information regarding its early-stage experiences to determine whether additional analysis will be necessary; with RMEA taking additional renewable energy deliveries in 2022 (from more recently executed supply agreements with market-based settlement mechanisms), it will more closely monitor historical market prices in proximity to related generating facilities – if instances of negative pricing become more prevalent at nodes adjacent to active project sites, RMEA may impute risk-related adjustments in its planning assumptions. In future contracting efforts, RMEA will remain aware of curtailment risk (stemming from instances of over-generation and related negative pricing) and will evaluate pertinent data to better understand the potential frequency of curtailment activities, including an assessment of historical pricing related to the point(s) of delivery that will be applicable in such supply agreements. While RMEA has not yet developed an individualized forecast of future curtailment for any particular project opportunity or

technology type, RMEA will factor potential curtailment into its minimum margin of procurement (described in Section IX) and may also factor this consideration in future iterations of its Risk Assessment (Section VII). To the extent that RMEA is engaged in renewable supply agreements which include curtailment provisions, it will take actions to limit the impacts of curtailment on its ratepayers and progress in meeting pertinent compliance mandates. During its current and future renewable contracting efforts, RMEA will continue to pursue contract terms that recognize and limit the potential financial impacts of negative pricing and provide RMEA greater flexibility to direct economic curtailment, if this becomes necessary.

XIII.6. Contract Terms Included in RPS Contracts Intended to Reduce the Likelihood of Curtailment or Protect Against Negative Prices.

As discussed previously, the City has incorporated terms in its contracts to limit consequences from negative prices. These include contracts with fixed quantities of RPS resources, and contracts with penalties for failure to deliver required amounts of RPS energy. An example of such language included in City contracts is:

> **Guaranteed Energy Production**: Seller shall be required to deliver to Buyer no less than the Guaranteed Energy Production (as defined below) in each two (2) Contract Year block (as opposed to rolling) period during the Delivery Term ("**Performance Measurement Period**"). "**Guaranteed Energy Production**" means an amount of Product, as measured in MWh, equal to one-hundred fifty percent (150% of the average Expected Energy (as set forth on the Cover Sheet) for each Performance Measurement Period. The calculation will be performed once each Performance Measurement Period, beginning with the second anniversary of the Delivery Term Start Date.

XIV. Cost Quantification

RMEA has provided an updated Cost Quantification Table as Appendix E, which reflects

renewable energy supply commitments that have been executed since submittal of its Final 2021 RPS Procurement Plan. Pursuant to direction in the ACR, the City has entered pertinent data in Appendix E. Pursuant to the direction in the ACR, RMEA has completed those cells in the Cost Quantification table that correspond to Table 3, Rows 1-5 in the ACR.

The City is aware of misalignments between volumetric totals presented in Appendix C and Appendix E of this planning document. The City understood that it was to include anticipated VAMO elections in Appendix C of its Draft 2022 RPS Procurement Plan. This noted, the City was not aware of similar instructions related to the inclusion or treatment of VAMO volumes within Appendix E, so such volumes were omitted from this element of the plan. The City intends to include VAMO volumes and costs within its Draft 2023 RPS Procurement Plan and would appreciate the Commission providing clarifying direction regarding: 1) the Market Price Benchmark forecast to be used in estimating VAMO costs; and 2) the technology-specific breakout to be used when categorizing VAMO volumes by fuel source – the City has carefully reviewed the volumetric estimates provided by SCE but is also aware that such estimates are subject to change in consideration of actual energy deliveries, which may differ from this forecast. The City could create its own estimate of the generating technology breakout associated with expected VAMO deliveries, but for the benefit of consistency amongst these planning documents, the City would appreciate additional information from the Commission regarding its preferred methodology for determining the technology-specific breakout and related cost estimates to be reflected within Appendix E. The City will continue to update such information in future RPS procurement planning documents when new data points become available.

XV. Coordination with Integrated Resource Planning Proceeding

The resources identified in this RPS Procurement Plan are consistent with the resources identified in RMEA's most recent IRP, which was approved by RMEA's governing board and provided to the Commission for certification on September 1, 2020. As required by the ACR,[13] RMEA includes the following table that describes how RMEA's 2022 RPS Procurement Plan conforms with the determinations made in the IRP Proceedings (R.16-02-007 and R.20-05-003). As required, RMEA will highlight the interrelationships of its RPS and IRP planning processes in a future iteration of this RPS Procurement Plan. The following table reflects RMEA's most recent updates, as reflected in this RPS Procurement Plan, regarding RPS alignment with the IRP process.

IRP Section Subsection	**RPS Alignment in IRP**	
III. Study Results **A. Conforming and Alternative Portfolios**	Retail sellers should explain how the RPS resources they plan to procure, outlined in their RPS Plan, will align with each of their Conforming Portfolios being developed in their IRP Plans for Commission approval and certification. This should include:	
	1. Existing RPS resources that the retail seller owns or contracts. *2. Existing RPS resources that the retail seller plans to contract with in the future.* *3. New RPS resources that the retail seller plans to invest in.* *4. New and existing resources that will be used to meet Mid-Term Reliability obligations*	The City continues to engage in renewable energy contracting efforts and expects to continue participating in/administering such procurement processes, via its relationship with CalChoice, to augment current RPS supply commitments and further progress towards the emission metrics reflected in the City's IRP. As part of its 2020 IRP filing, the City submitted two Preferred Conforming Portfolios that achieve its proportional share of both the 46 and 38 MMT GHG targets. Under each of these portfolios, the City's anticipated use of new and existing resources were added to the portfolio to achieve the relevant GHG targets as well as RPS procurement requirements, including the 65%

[13] ACR at 30-33.

	adopted in D.21-06-035.	long-term contracting requirement. For the 2022 IRP filings, the June 15, 2022 Administrative Law Judge's Ruling Finalizing Load Forecasts and Greenhouse Gas Emissions Benchmarks for 2022 Integrated Resource Plan Filings indicates that the IRP filings should be planning for 2035 as the target year and adopts planning targets of 30 MMT and 25 MMT. These are in addition to the requirements in D.22-02-004 which require LSEs to meet their proportional share of the 2030 target of 38 MMT and plan for a 2030 target of 30 MMT. Description of 2020 Preferred Conforming Portfolios: • 46 MMT Conforming Portfolio: Portfolio that achieves the City's proportional share of a 46 MMT statewide GHG target o The 46 MMT Conforming Portfolio assumed the use of RPS resources currently reflected in the City's supply portfolio, as further described in other submittals to the Commission and this RPS Procurement Plan, as well as the other new RPS resources, which were deemed necessary to achieve pertinent emission parameters associated with the 46 MMT Conforming Portfolio. In aggregate, these new RPS resource would include: 15 MW of new solar; and 13 MW of new wind o Future contracts with the following additional existing RPS resources were also deemed necessary to meet pertinent emission parameters associated with the 46 MMT Conforming Portfolio. In aggregate, these existing RPS resource would include: 1 MW biomass; 5 MW small hydro; and 15 MW wind o The City's 46 MMT portfolio conformed to the procurement timing, resource quantities, and

		general resource attributes identified in the 46 MMT reference system plan • 38 MMT Conforming Portfolio: Portfolio that achieves the City's proportional share of a 38 MMT statewide GHG target o The 38 MMT Conforming Portfolio assumed the use of RPS resources currently reflected in the City's supply portfolio, as further described in other submittals to the Commission and this RPS Procurement Plan, as well as the following new RPS resources, which were deemed necessary to achieve pertinent emission parameters associated with the 38 MMT Conforming Portfolio. In aggregate, these new RPS resource would include: 15 MW of new solar; and 13 MW of new wind o Future contracts with the following additional existing RPS resources were also deemed necessary to meet pertinent emission parameters associated with the 38 MMT Conforming Portfolio. In aggregate, these existing RPS resource would include: 1 MW biomass; 5 MW small hydro; and 15 MW wind o The City's 38 MMT portfolio conformed to the procurement timing, resource quantities, and general resource attributes identified in the 38 MMT reference system plan Description of 2022 Preferred Conforming Portfolios: • 38 MMT in 2030 and 30 MMT in 2035 Conforming Portfolio o This is a continuance of the 38 MMT portfolio from the 2020 IRP. It is anticipated at this time that the

		contracts outlined above will continue to be sufficient • 30 MMT in 2030 and 25 MMT in 2035 Conforming Portfolio: o The City is only beginning to determine how it plans on meeting this new, lower GHG requirement. The City anticipates that the procurement required will be similar to the outlines discussed above to meet the 38 MMT portfolio from the 2020 IRP. Meeting the Mid-Term Reliability obligations from D.21-06-035: • The City is participating in the Joint CalChoice, Desert Community Energy Authority, and Clean Energy Alliance Mid-Term Reliability Request for Proposals. Currently, negotiations are ongoing with short-listed resources.
IV. Action Plan **A. Proposed Activities**	Retail sellers should describe how they propose to use RPS resources to implement both Conforming Portfolios. Narratives should include:	
	1. Proposed RPS procurement activities as required by Commission decision or mandated procurement. *2. Procurement plans, potential barriers, and resource viability for each new RPS resource identified.*	To ensure compliance with its GHG and RPS targets, the City plans to substantially rely on GHG-free and RPS-eligible resources while contributing to statewide reliability requirements and responsibly managing overall portfolio costs. This approach is generally consistent between the 46 MMT Conforming Portfolio and 38 MMT Conforming Portfolio in the 2020 IRP Plan, as well as the 30 MMT and 25 MMT portfolios required to be included in the 2022 IRP Plan. The City's compliance with the IRP incremental procurement obligation required by D.19-11-016 will be met through existing contracts, as further detailed in the City's IRP. The contracted set of resources totals 6.2 MW, which exceeds the City's 4.8 MW incremental capacity requirement, and certain portions are already online with the required balance of such incremental capacity expected to be online by the noted August 1st deadlines in 2021, 2022 and 2023.

		As discussed above, the City's compliance with the Mid-term Reliability decision required procurement is on-going. The City's total requirements from the decision are 18 MW, including 1.5 MW of Long Lead Time resources, and 4 MW of zero-emitting capacity by 2025. The City expects that additional renewable energy resources will be needed to align actual and IRP-related procurement and fulfill general RPS procurement obligations of the City, including requisite long-term RPS contracting requirements. The City will participate in additional RPS solicitation activities, as administered by CalChoice, to address the balance of its RPS and IRP-related resource needs. Such solicitations are ongoing and will occur as-needed, based on the City's evolving open positions. The City will keep the Commission apprised regarding such procurement activities and will update future RPS and IRP planning documents in consideration of related resource acquisitions. In consideration of the City's relatively small sales volume and related resource needs, there are no eminent barriers or concerns regarding resource viability that are expected to compromise the City's achievement of RPS or emission-related compliance obligations.
IV. Action Plan **B. Procurement Activities**	The retail seller should describe the solicitation strategies for the RPS resources that will be included in both Conforming Portfolios. This description should include:	
	1. The type of solicitation. *2. The timeline for each solicitation.* *3. Desired online dates.* *4. Other relevant procurement planning information, such as solicitation goals and objectives.*	The City may participate in distinct solicitations for different products (for example: specific renewable energy products, generating resources or storage infrastructure), or it may choose to solicit multiple products in the same solicitation. These solicitations will be competitive and may be similar to the City's previous long-term RPS solicitations, which were described elsewhere in this RPS Procurement Plan. The City will administer future solicitations, as necessary, to promote consistency with the resource development plan identified in the IRP (for purposes of promoting achievement with state

		mandated RPS targets as well as the City's internal targets). As noted above, the City anticipates administering upcoming solicitation activities consistent with the process and timeline described above. The City is currently in the process of procuring resources that will meet the Mid-Term Reliability needs, with an additional goal of procuring additional RPS-eligible renewable energy that will further achievement of RPS compliance mandates, including applicable long-term contracting requirements During administration of future procurement processes, the City will utilize the evaluative and contract management processes (further described above in Section X and elsewhere in this Plan) to promote timely project completion and improve planning certainty.
IV. Action Plan **C. Potential Barriers**	Retail sellers should provide a summary of the potential barriers to implementing both Conforming Portfolios as they relate to RPS resources. The section should include:	
	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. *2. Key risks associated with the potential retirement of existing RPS resources on which the retail seller intends to rely in the future.*	The City does not expect any procurement barriers to impede its future contracting for new or existing renewable energy resources, but notes that even though a balanced, diverse RPS portfolio is desirable, the limited resource availability and lead time required for some technology types may necessitate planning flexibility. The key risk affecting the City's achievement of the 46 MMT and 38 MMT Preferred Conforming IRP Portfolios in the 2020 IRP Plan and the 30 MMT and 25 MMT portfolios in the 2022 plan is reliance on new resources – while the City intends to contract with highly experienced and qualified project developers (when new-build resources are deemed necessary), there is always a limited risk of project failure. In consideration of the City's growing renewable energy commitments and the relatively manageable level of incremental RPS procurement that would be required to meet parameters of the Preferred Conforming IRP Portfolios, it does not have any substantive concerns regarding its ability to fulfill achieve levels of renewable energy procurement that will be required to satisfy

		pertinent RPS mandates or IRP targets. If the City's impression happens to change over time, it will accordingly advise the Commission in a subsequent update to this RPS planning process.

Dated: January 17, 2023

Respectfully submitted,

/s/ Isaiah Hagerman

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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 Portfolio Standard Program.	Rulemaking 18-07-003

FINAL~~UPDATED DRAFT~~ 2022 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLAN OF RANCHO MIRAGE ENERGY AUTHORITY

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Dated: January 17, 2023~~August 15, 2022~~

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 Portfolio Standard Program.	Rulemaking 18-07-003

FINAL~~UPDATED DRAFT~~ 2022 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLAN OF RANCHO MIRAGE ENERGY AUTHORITY

In accordance with the California Public Utilities Commission's ("Commission") March 30, 2021 *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 the *Decision on 2022 RPS Procurement Plans* ("D.22-12-030"), the City of Rancho Mirage, doing business as Rancho Mirage Energy Authority ("RMEA" or "the City"), hereby submits this Final~~Updated Draft~~ 2022 Renewables Portfolio Standard Procurement Plan ("RPS Procurement Plan"). As directed by the ACR, this RPS Procurement Plan includes responses for the issues expressed in sections 6.1-6.16 of the ACR. ~~This update to RMEA's RPS Procurement Plan provides finalized information on RMEA's acceptance of allocations in the Voluntary Allocation Market Offer ("VAMO") process.~~

RMEA 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"). RMEA is nevertheless voluntarily responding to these ACR sections in the interest of transparency and to collaborate with the Commission. The submission of this RPS Procurement Plan pursuant to the ACR, however, should not be construed as a waiver of the right to assert that components of Senate Bill ("SB") 350 or Commission decisions

and rulings on RPS Procurement Plan submittals, do not extend to CCAs, and RMEA reserves the right to challenge any such assertion of jurisdiction over these matters.

As indicated in RMEA's previously submitted RPS Procurement Plans, the Commission should consider the relatively small size and related administrative structure under which RMEA operates its CCA program. In particular, RMEA operates its CCA program under a shared service model, which means RMEA has joined together with other, regionally located CCA programs to promote administrative efficiencies by outsourcing many highly specialized services typically required for successful CCA administration and operation. The California Choice Energy Authority, or CalChoice, is a joint powers authority ("JPA"), the members of which include the cities of Lancaster and San Jacinto. CalChoice was formed to help cities in Southern California Edison's ("SCE") service territory evaluate, implement, and operate CCA enterprises without having to share or cede (by virtue of proportionate influence during decision making processes) control that could result from participation in larger, multi-jurisdictional JPAs or without independently taking on the significant financial liabilities (*e.g.*, start-up costs, staffing, and ongoing administration) of a single entity CCA. CalChoice is the organization selected by RMEA to provide requisite services and inter-agency coordination amongst regionally located, single-city CCA programs.

There are currently eight~~ten~~ (8~~10~~) Southern California communities that are being supported under independent administrative services agreements with CalChoice, including RMEA. These communities include the Town of Apple Valley (doing business as Apple Valley Choice Energy, or "AVCE"; successful CCA launch in April 2017); and the cities of ~~Baldwin Park (formerly doing business as Baldwin Park Resident Owned Utility District, or "BPROUD," which successfully commenced CCA service in October 2020, then later decided to terminate~~

~~program operations through an orderly process that resulted in the return of its customers to SCE in March 2022), LCE (~~Lancaster (doing business as "Lancaster Energy": successful CCA launch in May 2015), Palmdale (doing business as Energy for Palmdale's Independent Choice, or "EPIC"; successful CCA launch in~~CCA launch is planned for~~ October 2022), Pico Rivera (doing business as Pico Rivera Innovative Municipal Energy, or "PRIME~~,~~" successful CCA launch in~~which successfully commenced the delivery of CCA service in~~ September 2017), Pomona (doing business as Pomona Clean Energy; successful launch in October 2020), Rancho Mirage (doing business as the Rancho Mirage Energy Authority; successful CCA launch in May 2018), San Jacinto (doing business as San Jacinto Power; successful CCA launch in April 2018) and Santa Barbara (doing business as Santa Barbara Clean Energy; successful CCA launch in October 2021). The city of Baldwin Park (formerly doing business as Baldwin Park Resident Owned Utility District, or "BPROUD," which successfully commenced CCA service in October 2020, then later decided to terminate program operations through an orderly process that resulted in the return of its customers to SCE in March 2022) was previously supported by CalChoice, but this services agreement expired in mid-2022, so CalChoice is no longer involved in supporting any remaining responsibilities related to Baldwin Park's previously operating CCA program. CalChoice's team of experienced CCA practitioners works in cooperation with City and Town leadership to administer CCA operations. Responsibilities for CCA program management are divided, but closely coordinated, amongst these constituents. For example, CalChoice's team provides key administrative support and advisory services, including the completion of work related to resource planning and procurement (*e.g.*, load forecasting, solicitation administration, contract negotiation support and, specifically related to this RPS Procurement Plan, the administration of functions required to plan for and procure requisite RPS-

eligible renewable energy supply). City and Town staff, including elected leadership, take lead roles in reviewing and approving electric generation rates, adopting resource planning policies and creating, implementing and administering locally focused energy programs and, in certain cases, locally situated energy infrastructure projects that support CCA program operations and the interests of participating customers.

The CalChoice service model has not only proven to be highly desirable for many smaller Southern California communities but also critically important in preserving the community-specific oversight and decision-making autonomy that would not necessarily be afforded under a larger, multi-community~~party~~ joint powers agency. Key decisions of each CalChoice-supported community, including rate setting, retail supply portfolio composition, disposition of financial reserves, and administration of complementary programs, are independently addressed by the respective governing councils of each community and administered by staff with supporting input from CalChoice's experienced team. The CalChoice model preserves the autonomy of each participating community by applying a "one size does not fit all" support framework, which allows participating communities to establish and pursue objectives and key parameters that are directly responsive to the unique constituents and interests within their respective communities.

In terms of CalChoice's role in supporting the renewable energy planning and procurement functions of each participating community, CalChoice coordinates directly with each community to identify required levels of renewable energy procurement (as specified under California's RPS Program) as well as any above-RPS procurement targets voluntarily adopted by each participating community (that may be related to specific retail service offerings that provide renewable energy deliveries in excess of statewide mandates). Once such targets are established, CalChoice supports discussions focused on future renewable energy planning trajectories,

recommended planning reserve margins, necessary long-term contracting requirements, upcoming solicitation administration, and ongoing monitoring of supplier/developer performance to promote alignment between actual and projected renewable energy supply, including the completion of any portfolio balancing activities that may be necessary to close incremental open positions or dispose of unnecessary excess/length. Such discussions between CalChoice and participating communities remain ongoing with opportunities to adjust desired renewable energy parameters over time. The information provided by participating communities is compiled by CalChoice and aggregated, if/when appropriate, to facilitate administratively coordinated procurement efforts. Due to the relatively small size of CalChoice's participating communities, meaningful administrative efficiencies have been achieved through joint solicitation administration. In particular, otherwise redundant costs and procedural elements, including solicitation administration, counterparty coordination, contract negotiations, and project development milestone tracking, are substantially minimized by coordinating/centralizing such functions/roles through CalChoice. These desirable outcomes are critically important to CalChoice's participating communities by reducing administrative complexities and staffing requirements that would otherwise need to be addressed by each participating community while simultaneously reducing costs that would otherwise burden the financial performance of each CCA program – such an approach allows participating communities to leverage the relatively limited specialized expertise and technical acumen that are needed to successfully administer CCA enterprises without having to independently identify and hire such staff, which could be time consuming and very costly.

Subject to pertinent renewable energy mandates imposed under California's RPS Program, participation in CalChoice's renewable energy procurement processes (meaning

solicitations and related contracting efforts) is voluntary, and member communities may independently determine whether or not to participate based on the status of each community in progressing towards such statewide mandates and, if applicable, desired levels of renewable energy procurement in excess of such mandates. CalChoice does not act on behalf of its participating communities without prior direction/authorization, and any contracting processes resulting from CalChoice-administered solicitation efforts are subject to approval by the governing councils of participating communities (or predetermined, explicitly identified delegated authorities, which may allow senior city staff, such as a City Manager, to approve/execute certain contracts).

When contemplating resource planning and procurement efforts that will be undertaken by California retail sellers, including the preparation of requisite RPS Procurement Plans, RMEA encourages the Commission to consider the stark, undeniable differences between the relatively small communities supported by CalChoice and the state's much larger Investor-Owned Utilities ("IOUs"). The disparate scope and magnitude of procurement responsibilities that must be undertaken by an IOU, relative to a small CCA, necessitate different approaches and organizational support. In the case of an IOU, there will be an entire procurement department available to support requisite efforts, including a team of attorneys, analysts, and other staff members – the level of procurement activities undertaken by an IOU seems to necessitate such an approach. In the case of a small CCA, however, there may only be a few renewable energy supply contracts needed to satisfy pertinent procurement mandates at any point in time – in consideration of the work required to support such efforts, a small CCA would not necessarily want or need to hire several staff members, invest in costly systems or perform elaborate analyses, as the scope of responsibilities that must be undertaken to support RPS compliance

activities is relatively narrow in comparison to an IOU. RMEA encourages the Commission to consider these differences when reviewing/evaluating the respective RPS Procurement Plans submitted by California retail sellers – differing levels of detail, procedure, complexity, and coordination are likely very appropriate within the planning documents submitted by small, medium, and large organizations; and where the Commission may be inclined to identify informational deficiencies in certain areas (based on inevitable differences between content provided in the RPS Procurement Plans of California's IOUs and smaller CCA programs), RMEA encourages the Commission to consider the inappropriateness of a "one size fits most/all" approach in managing widely varying RPS planning and procurement obligations. While there may be some commonalities amongst planning and procurement practices reflected in the various RPS Procurement Plans submitted through this process, it seems reasonable to assume that noteworthy differences will be prevalent. This noted, the relatively close-knit community and ongoing coordination amongst CCA organizations (though associations like CalChoice and the California Community Choice Association, or "CalCCA") has resulted in the sharing of many best practices, which may contribute to commonalities in various resource planning and procedural elements described in RPS procurement planning documents. The extent to which such commonalities exist may change over time, but the Commission should be aware of the potential for similarities amongst the plans of CCA organizations, which regularly coordinate during the development of regulatory filings/submittals. In the case of this RPS procurement planning process, broad coordination has been particularly prevalent.

With regard to RMEA, its participation in CalChoice's shared service model will result in inevitable similarities when comparing the RPS Procurement Plans submitted by each participating community – due to the coordinated approach undertaken by CalChoice, key

planning elements and procurement processes may, in fact, be identically described in each participant's respective RPS Procurement Plan. RMEA respectfully requests that the Commission consider this inevitability while reviewing its RPS Procurement Plan – the similarities between planning documents submitted by CalChoice's participating communities are reflective of thoughtful coordination, a commitment to fulfilling applicable compliance mandates reflected in California's RPS Program, an interest in promoting administrative efficiency, and an effort to suppress planning and procurement costs that would be much higher if each participating community independently managed such efforts. To the extent that CalChoice remains successful in promoting inter-agency coordination and efficiencies, participating customers are expected to benefit via retail rates that pass through the benefits of such efforts.

The Commission is also encouraged to consider the differing operational stages of reporting load serving entities ("LSEs"). Certain direction and guidance provided by the Commission seems to suggest that each element of the RPS planning process should be universally applicable across all LSEs, regardless of pertinent operational status, and that is not the case. For example, it is likely inappropriate and unhelpful for a newer CCA organization to prepare a ten-year negative price forecast or curtailment analysis when the nature of existing contractual commitments would render such information irrelevant and unhelpful – given the heightened attention and related information focused on changing market conditions, increased incidents of negative pricing and related energy curtailment, all LSEs are aware, to some extent, of these potential risk factors, but that does not mean a related forecasting effort or other form of analysis would provide useful information to each LSE. For example, a generalized ten-year negative price forecast or curtailment analysis would have little meaning for a new LSE without

existing contractual commitments or if its contractual commitments did not expose the buyer to negative price risk (due to the application of settlement mechanisms or the specification of fixed delivery quantities). Similarly, it would not make sense for an LSE to prepare forward curtailment estimates if its renewable contract portfolio primarily included fixed volume supply commitments or did not allow discretionary curtailment via terms and conditions reflected in such contracts. Again, RMEA encourages the Commission to consider the appropriateness of universally requiring certain information within this planning process when such information may not be relevant or useful to the reporting entity (or other parties that may choose to review such information) – certain sections of these plans should be marked as "if necessary" or "if applicable" without the assumption that all LSEs should be comprehensively responsive in addressing such topics; RMEA further encourages the Commission to consider this approach in future rulings/directives related to this RPS procurement planning process.

With regard to understanding the consequences of compliance shortfalls, the communities supported by CalChoice have been advised of both direct (*e.g.*, financial penalties and findings of non-compliance) and indirect (*e.g.*, reputational damage that might accrue to participating communities or CCA organizations, generally) impacts associated with such deficiencies and have chosen to pursue risk mitigation measures that are considerate of each participating community's aversion to such risks as well as the related administrative complexity, cost and rigor that were deemed appropriate to achieve the desired level of mitigation. CalChoice members have also been advised of, and clearly understand, the financial penalty mechanisms in place under California's RPS program – while it seems unlikely that a compliance shortfall will occur, there is an appreciation of prospective financial consequences, namely the $50 per megawatt hour penalty applying to such shortfalls. This noted, RMEA

observes that the RPS Program does not require a "compliance at any cost" approach, as the financial penalty structure is intended to address such issues in the unlikely event that they occur.

In considering its evolving informational needs, the City has engaged CalChoice to prepare a more robust risk assessment, as reflected in this RPS Procurement Plan. Details related to this risk assessment are further described below and focus on the City's current portfolio of RPS supply agreements, evaluating potential portfolio impacts related to lower-than-expected deliveries and contract failure/termination amongst other considerations. In reviewing its analysis, the City feels confident that its MMoP, as further described herein, and general RPS procurement strategy will satisfactorily address applicable compliance mandates throughout the planning period.

Again, the relatively small communities and related renewable energy procurement efforts supported by CalChoice are not comparable to the geographic footprint and/or procurement efforts undertaken by the incumbent utility, SCE; individual communities supported by CalChoice tend to have near-term annual renewable energy procurement targets ranging from 50-300 gigawatt hours, while SCE is expected to procure several thousand gigawatt hours to meet its respective obligations. The significance of these differences and the complexity of related procurement efforts, including the myriad contracts typically required by larger entities, necessitate a much different scope of procedural considerations and risk mitigation measures – the RPS Procurement Plans submitted by the IOUs should not be the standard by which all other Plans are measured.

I. Major Changes to RPS Plan

This Section describes the most significant changes between RMEA's Final 2021 RPS Procurement Plan and its Final~~Updated Draft~~ 2022 RPS Procurement Plan. A redline of this

Final~~Draft~~ 2022 RPS Plan against RMEA's Draft Updated~~Final 2021~~ RPS Plan is included as Appendix A. The table below provides a list of key differences between the 2021 and 2022 RPS Procurement Plans:

Plan Reference	Plan Section	Summary/Justification of Change
2022 RPS Procurement Plan: Section II	Executive Summary	Updated to reflect the changes made throughout other sections of this RPS Plan.
2022 RPS Procurement Plan: Section IV	Portfolio Optimization	Updated to describe Voluntary Allocation Market Offer proposal/framework approved in Decision 21-05-030 and subsequent decisions and resolutions, and the City's acceptance of its allocation in the VAMO process. Updated to describe procurement undertaken to comply with D.21-06-035, the Mid-Term Procurement Decision.
2022 RPS Procurement Plan: Section IV.B.1	Long-term Procurement	Updated long-term RPS procurement discussion.
2022 RPS Procurement Plan: Section V	Project Development Status Update	Updated Appendix D to reflect the progress of new-build renewable generating projects.
2022 RPS Procurement Plan: Section VI	Potential Compliance Delays	Updated narrative to incorporate changing renewable energy procurement marketplace.
2022RPS Procurement Plan: Section VII	Risk Assessment	Added new risk assessment.
2022 RPS Procurement Plan: Section VIII	Renewable Net Short Calculation	Updated Appendix C to reflect ongoing procurement efforts.
2022 RPS Procurement Plan: Section XIV	Cost Quantification	Updated Appendix E to reflect ongoing procurement efforts.

II. Executive Summary

RMEA is a CCA organization serving residential and business customers located within the City of Rancho Mirage. RMEA initiated customer service in May 2018 and currently serves approximately 15,000 retail electric accounts, which are expected to consume about 288 gigawatt hours per year. To streamline CCA program administration and create procedural efficiencies through jointly administered planning and procurement functions, RMEA continues to engage CalChoice for requisite planning and procurement support. RMEA regularly participates in jointly administered solicitations for long-term RPS-eligible renewable energy supply and other products, as administered by CalChoice. In fact, CalChoice, in combination with Desert Community Energy Authority and Clean Energy Alliance, recently administered a request for proposals for resources to meet the CCAs' needs under D.21-06-035, the decision requiring procurement to address mid-term reliability for 2023-2026, and potentially long-term RPS needs. Responses were due February 4, 2022 and CalChoice is currently in the process of negotiating with shortlisted respondents. Irrespective of the outcomes related to these negotiating efforts, the City's most recent contractual commitments are expected to address the balance of RMEA's long-term RPS need in Compliance Period 4. In addition to various long-term supply agreements, RMEA has also executed certain short-term RPS supply commitments to address near-term RPS compliance mandates and related planning reserves. RMEA anticipates participating in various other solicitation efforts (administered by CalChoice and, possibly, the IOUs) and recently finalized its elections related to SCE's VAMO process, deciding to accept 40% of the available long-term allocation and none of the available short-term allocation. These procurement processes are expected to address the City's remaining RPS open positions (both short- and long-term, as appropriate) and the increasing renewable procurement targets reflected

in California's RPS Program.

RMEA's RPS open positions remain subject to periodic evaluation – such evaluations will generally occur: 1) prior to solicitation administration (for purposes of quantifying renewable energy volumes to be addressed in the upcoming solicitation); 2) after bid receipt (to determine potential impacts to RMEA's RPS open position); 3) after execution of any RPS contract (to quantify expected reductions to the open position associated with successful procurement activities); and 4) throughout each operating year as the relationship between actual and expected renewable energy deliveries is periodically monitored relative to retail electricity sales (to determine if additional procurement or surplus sales may be necessary to promote portfolio balance). This process will remain ongoing and will be utilized to guide RMEA participation in future renewable energy procurement processes. Based on the results of this recurring exercise, RMEA may: 1) evaluate the need to adjust renewable energy planning reserves; 2) consider the manner in which project development and performance risk will be assessed and incorporated during RMEA's renewable energy procurement efforts; and 3) assess various other considerations related to the RPS Program as further described in this RPS Procurement Plan.

Since submittal of its Final 2021 RPS Procurement Plan, which occurred on February 17, 2022, RMEA continues to successfully operate its CCA Program. Amongst its key operational concerns, RMEA, via services provided by CalChoice, engages in requisite planning and procurement efforts to ensure compliance with California's RPS procurement mandate. Similar to other CalChoice members, RMEA has access to various resources and advisory services as well as a community of member organizations, which are able to create efficiencies through the administration of joint procurement processes and other inter-agency coordination. Going

forward, joint procurement efforts, including participation in various CalChoice renewable energy RFPs, will enhance RMEA's ability to efficiently and cost effectively identify and procure necessary renewable energy supply. RMEA also believes that this sort of joint procurement activity will provide access to larger, lower-priced procurement opportunities that would otherwise be unavailable to its individual CCA Program (due to sizing limitations), resulting in reduced overall renewable energy costs for its customers as well as general improvements in procedural efficiency.

City staff, in cooperation with CalChoice and its advisors, continue to evaluate the appropriateness of a 2% minimum margin of procurement (or "MMoP", which in the City's case is determined relative to total expected annual retail sales) for requisite renewable energy supply. Analysis of the amounts of wind and solar curtailments in the CAISO over the 2018-2021 period show that curtailments were well below 1% of total load, and under 5% of the total renewable generation related to these specific technology types. Further, a risk analysis conducted by RMEA confirms that the 2% MMoP is expected to be sufficient. Ongoing discussions and analyses suggest that such a margin would provide adequate "cushion" in meeting applicable compliance mandates. In the future, if actual renewable energy deliveries are expected to fall short of projections, RMEA will consider adjusting the noted planning reserve. This approach seems to effectively balance RMEA's interest in fulfilling pertinent RPS compliance obligations without subjecting the City's CCA Program or its customers to unnecessarily high incremental renewable energy costs that would likely accrue in parallel with higher planning reserve targets. Before making any future adjustments (increases) to its anticipated renewable energy planning reserve, RMEA will also monitor the local and national economic situation, including any potential issues related to business closures, the recovery/collection of customer payments and

other concerns that could arise as the federal government continues to manage inflationary pressures by increasing interest rates.

Over time, following the accumulation of additional financial reserves, the City will be better prepared to exhibit increased flexibility if larger renewable planning reserves are deemed necessary. With regard to the City's noted 2% renewable reserve margin, which is synonymous with the term "margin of procurement", the following methodology would apply: if expected retail sales total approximately 282 GWh in 2021, RMEA would plan to procure an additional 6 GWh of renewable energy (2% of the estimated 282 GWh retail sales forecast; this quantity of renewable energy would be in excess of the anticipated interim annual procurement target related to California's RPS) to protect against renewable energy delivery shortfalls in this year. Relating such a margin of over procurement to the 38.5% interim annual procurement mandate in 2022, this would provide the City with a 5.2% cushion (relative to the prevailing interim annual procurement target in this year) in the event that actual deliveries fell below expectations (relative to the expected 109 GWh of renewable energy that would be required to meet the State's interim annual procurement mandate). During RMEA's ongoing discussions with CalChoice on this topic, it has been determined that such a margin could be periodically evaluated and adjusted on an as-needed basis in consideration of the manner in which actual renewable energy purchases/deliveries track with related projections and applicable statewide mandates, renewable product availability, budgetary impacts, customer participation rates (in RMEA's CCA program) and various other considerations.

Looking ahead to the balance of 2022 and beyond, the City and CalChoice are committed to administering renewable energy solicitations on an as-needed basis to ensure that both short- and long-term renewable energy requirements are satisfied. In considering its long-term

renewable energy procurement obligations, the City acknowledges that certain new-build contracting opportunities, which typically require long-term purchase commitments, may need substantial lead time before related renewable energy production occurs – ensuring that renewable energy deliveries associated with such projects dovetail with the City's mandated RPS purchase will require careful planning, selection of proven project developers and thoughtful consideration of ongoing renewable planning reserves to promote alignment of actual and projected renewable energy needs. For the time being, however, all of the City's RPS supply commitments are with generating facilities that have already achieved commercial operation. Given the success of its ongoing renewable energy procurement efforts, the City is confident in its ability to identify sufficient levels of renewable energy supply and will work diligently to secure such supply during ongoing operations. Recently accepted long-term VAMO allocations from SCE are expected to solidify the City's achievement of applicable long-term RPS contracting mandates in Compliance Period 4 and beyond. The City does not take for granted that proposed RPS procurement/project opportunities will result in finalized/executed contractual commitments. With this in mind, RMEA is prepared to exhibit flexibility in administering future RPS solicitations and will continue to engage the market until contractual commitments closely align with or exceed anticipated resource needs.

As part of its ongoing planning process, RMEA is also considering the manner in which renewable energy compliance risks will be assessed and managed. RMEA has further considered this topic after submitting its Final 2021 RPS Procurement Plan and determined that an enhanced risk analysis would be instructive in assessing the sufficiency of its MMoP and other variables that could impact planned renewable energy deliveries. The results of this analysis are presented below, including a description of the methodology that was applied in

completing such analysis. Based on the results of its analysis and previous guidance from CalChoice, the identification and selection of highly experienced and financially viable renewable energy sellers remains the single most important consideration in promoting the achievement of RPS compliance – by pursuing supply commitments from such sellers, including the specification of contract terms that narrow compliance risk (through firm, fixed delivery quantities or relatively high energy delivery guarantees, RMEA and CalChoice believe that the substantial majority of future delivery risk can be avoided. This will be accomplished by completing a rigorous review of each prospective supplier's development and operational experience, track record of success (in terms of developing and/or operating renewable energy projects), financial standing and credit rating, familiarity with pertinent development milestones as well as the state of completion for such items, customer references and various other considerations. During completion of this process, the field of respondents will be significantly narrowed, leaving only the best qualified suppliers to undergo further consideration.

This ~~Draft~~ RPS Procurement Plan also addresses new requirements specified in the April 11, 2022 ACR, including updates that reflect an extended planning period, through 2032, as well as recently completed risk assessment; this ~~Updated Draft~~ 2022 RPS Procurement Plan also includes information regarding the City's acceptance of long-term RPS allocations made available through the VAMO process as further described below.

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 how this RPS Procurement Plan demonstrates that RMEA meets these requirements.

SB 350 was signed by the Governor on October 7, 2015. SB 350 set a new RPS procurement target of 50 percent 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.

SB 100 was signed by the Governor on September 10, 2018 and became effective on January 1, 2019. SB 100 increased the RPS procurement requirements to 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent 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 instituted Rulemaking 18-07-003 to continue the implementation of the RPS. On June 28, 2019, the Commission issued D.19-06-023, which continues to use a straight-line method to calculate compliance period procurement quantity requirements.

The current RPS procurement targets are incorporated into RMEA's Renewable Net Short Calculation Table as described in Section VIII below and attached as Appendix C. RMEA's current and planned procurement, as reflected in RMEA's Renewable Net Short Calculation Table and described in Sections IV and V, is expected to be sufficient to exceed these targets, including a minimum margin of over-procurement based on RMEA's perception of reasonably foreseeable risks, as further described in Sections VII and IX. RMEA is also positioned to meet 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 section 8388, which requires any IOU, 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. RMEA does not have a contract with a biomass facility that is covered by Public Utilities Code section 8388.

~~As a public agency, the City takes official support positions on legislation through a formal vote of its governing council. Information on the City's official support positions, including a support letter, if applicable, will be made available as part of the agenda packet related to the Council Meeting at which such vote occurs. The City may also post a press release regarding official positions on major legislation to the City's website. Because the City only takes support positions through the formal actions of its governing council, it cannot identify any future legislative efforts that it may support.~~

SB 255 (stats. 2020, ch. 407) amended Public Utilities Code section 366.2 to require certain CCAs to annually submit to the Commission the following: (i) a plan for "increasing procurement from small, local, and diverse business enterprises in all categories, including, but not limited to, renewable energy, energy storage system, and smart grid projects," and (ii) a report regarding the CCA's "procurement from women, minority, disabled veteran, and LGBT business enterprises in all categories, including, but not limited to, renewable energy, energy storage system, and smart grid projects." CalChoice submitted the *Supplier Diversity 2021 Annual Report and 2022 Annual Plan* on behalf of its members, including the City, in

compliance with SB 255 and General Order 156.[1]

IV. Assessment of RPS Portfolio Supplies and Demand

IV.A. Portfolio Supply and Demand

As previously noted, RMEA began serving customers in May 2018. RMEA currently provides retail electric generation service to approximately 15,000 retail electric accounts, which are expected to consume about 288 gigawatt hours per year. To date, RMEA, via solicitations administered by CalChoice, has entered into several power supply agreements (both short- and long-term) with various suppliers, certain of which will contribute to RMEA's RPS compliance during early-stage and ongoing CCA operation. RMEA expects that further solicitations will be necessary over time, as additional supply commitments will be required to fulfill the City's growing renewable energy requirements that are expected to increase in concert with California's escalating RPS mandate. Such solicitation processes will be focused on both short-term and long-term renewable energy needs and will be administered on an as-needed basis, following RMEA's periodic evaluation of expected renewable energy deliveries relative to projections.

The exact portfolio characteristics selected may vary depending on direction received from the City's Governing Council, advice provided by CalChoice, renewable resource availability, procurement costs, legislative and policy changes, technological improvements, preferences of the community, or other developments, such as the procurement ordered in Mid-Term Reliability decision, D.21-06-035. To manage this future uncertainty, RMEA and CalChoice examine and estimate supply and customer demand and will structure future

[1] *See* CalChoice *Supplier Diversity 2021 Annual Report and 2022 Annual Plan*, March 1, 2022, available at: https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/bco/cca-procurement-reports/2021/calchoice-supplier-diversity-2021-report-and-2022-annual-plan.pdf.

procurement efforts to balance customer demand with requisite resource commitments. This examination of customer demand and other market developments will help reduce costs and assist in meeting expected renewable energy requirements for the period addressed in this RPS Procurement Plan.

RMEA is also attempting to gain an improved understanding of the prospective impacts to its customer base associated with the potential reopening of California's direct access market due to SB 237 (2018) and D.19-05-043. In D.21-06-033, the Commission recommended against expanding direct access at this point, however, the City recognizes that this may change in the future. The City will monitor direct access for any changes that may result in future adjustments to RMEA's load forecast and related renewable energy procurement obligations, which would be expected to decrease if RMEA loads migrates to direct access providers – in theory, such a change would push RMEA's renewable energy content higher unless surplus supply was sold to other market participants; this would be similar to the impacts experienced by California's IOUs, which have resulted from ongoing CCA implementations and expansions – following these activities, the proportionate RPS content of each IOU has increased, as evidenced in the annual Power Source Disclosure Report of each IOU (for reference, this has occurred in spite of IOU-administered solicitations intended to sell off surplus RPS supply, which suggests that other retail sellers, particularly CCAs, have already made meaningful progress in meeting applicable RPS mandates in the near-term planning horizon). To the extent that any adjustments are made to the City's retail sales forecast, it will reflect such adjustments in a subsequent RPS Procurement Plan. Through the ongoing evaluation of customer demand and other market developments, RMEA hopes to influence reduced overall costs while meeting planned procurement objectives for the period addressed in this RPS Procurement Plan.

Also, as COVID-19 cases generally decline and mobility restrictions continue to relax, the City will continue to monitor retail sales in the event that any meaningful deviations from historical norms happen to surface. The City will also monitor any changes that might arise from ongoing inflationary pressures and the implementation of higher interest rates that are being applied by the federal government to manage such inflation. Much like load-related impacts throughout the pandemic, the City understands that customer energy use within California's current period of economic uncertainty (meaning, the "high inflation, rising interest rate" environment being experienced throughout the country) and the post-pandemic recovery period may be difficult to predict and easily obscured by typical variations in weather. Nonetheless, the City will closely evaluate available data, attempting to parse various impacts on retail electricity consumption while incorporating adjustments to its planning assumptions on an as-needed basis. Regardless of any near-term load volatility, the City remains confident that its internally adopted MMoP, when applied to its renewable energy targets, will virtually eliminate the potential for compliance deficits.

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 PCIA rulemaking (R.17-06-026). One of the Final Report's key proposals was for the Commission to create a VAMO framework, where each LSE serving customers subject to the PCIA would be provided an annual option to receive an allocation ("Voluntary Allocation") from the IOUs' PCIA-eligible RPS energy portfolios, based on that 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

process ("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. LSEs will also be able to acquire resources through the VAMO structure that will be considered long-term contract resources.

The Commission recently approved D.22-06-024, which provided additional guidance on the VAMO process, as well as Resolution No. E-5216, which approved the IOUs' pro forma contracts for the voluntary allocations. The IOUs have also filed advice letters outlining their market offer processes for resources not allocated through the voluntary allocations; approval for these processes is expected later this year.

The City recently evaluated available short- and long-term VAMO allocations relative to its current and future RPS needs and subsequently notified SCE of its intent to accept 40% of the available long-term allocation; no short-term allocations were accepted. Details related to the City's anticipated VAMO deliveries are further detailed in the following table:

	2023	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
RMEA's Planned Long-Term VAMO Allocation (at 40% of Total)	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
PCC 0 (MWh)	11,412	11,386	11,321	11,277	11,207	11,114	10,987	10,860	10,844	10,854
PCC 1 (MWh)	28,973	28,752	28,483	28,277	27,867	27,305	26,714	26,119	26,015	25,978
Total Anticipated VAMO Volume (MWh)	40,385	40,138	39,803	39,554	39,073	38,419	37,701	36,978	36,859	36,831

These anticipated long-term VAMO volumes are now reflected in the City's planning assumptions, including its Renewable Net Short reporting template, which has been updated and attached hereto as Appendix C.

IV.A.2. Portfolio Optimization

The City's goal is to meet its locally adopted policies and statewide mandates in a manner that is both cost effective and supportive of a well-balanced resource portfolio. Portfolio optimization strategies can help reduce costs and should facilitate alignment of the City's resource portfolio with forecasted energy requirements of its CCA customers. In order to support this goal, the City regularly considers the following strategies:

Joint Solicitations: Joint solicitations can expand the procurement opportunities available to a CCA, as well as potentially provide better contract terms. The City participated in the recent CalChoice, Desert Community Energy Authority and Clean Energy Alliance solicitation for Mid-Term Reliability (MTR) resources and long-term renewable energy supply and intends to continue participating in such joint solicitation activities as part of the shared services arrangement that it has in place with CalChoice. The City is also evaluating and participating in joint solicitations through CalChoice with other CCAs.

Purchases from Retail Sellers: Purchases of RPS-eligible renewable energy (via resale) from other retail sellers can provide a cost-effective way of meeting short term resource needs or filling in gaps in procurement while long term projects are under development. The City will evaluate solicitations offered by other retail sellers, as necessary.

Sales Solicitations: Based on its portfolio rebalancing needs, the City will also consider administering RPS sales solicitations (with the City serving as seller) to other market participants.

Optimizing Existing Procurement: As the City considers its long-term resource needs, it may evaluate options in its future power purchase agreements, if available, to increase output of existing generating facilities through technological upgrades or by adding new capacity to an existing generator. Expanding existing facilities or adding energy storage infrastructure at existing generating facilities may provide additional generation at reduced costs and/or increased operational flexibility with a lower risks of project failure (because the need for distribution system upgrades and permitting may be reduced) – such opportunities may be pursued, as deemed appropriate by the City.

On June 24, 2021, the Commission adopted D.21-06-035, which directed all retail sellers to procure 11,500 MW of new net qualifying capacity ("NQC") between 2023 and 2026 and assigned each retail seller a specific procurement responsibility based on its share of peak demand. The City's total obligation is 18 MW, which must include minimum amounts of

procurement from certain subcategories: (1) 4 MW from firm, zero-emitting capacity by 2025; (2) 1.5 MW from long duration storage resources by 2026; and (3) 1.5 MW from firm, non-fossil fueled baseload generating resources by 2026. The City is currently evaluating a range of procurement options for meeting is D.21-06-035 obligations. This procurement was addressed through the request for proposals conducted jointly by CalChoice, Desert Community Energy Authority, and Clean Energy Alliance described elsewhere in this RPS Procurement Plan. Options to be considered range from RA-only contracts to renewable generation, including that paired with storage and stand-alone storage contracts with various different energy structures. While RPS-eligible generation would provide an added benefit, it is not the primary objective or deciding factor in determining which procurement options will ultimately be selected. If the City does meet any of its D.21-06-035 procurement obligations with renewable generation, then that generation may be in addition to the planning and forecasting described in this RPS Procurement Plan. The City will try to optimize its RPS procurement with the requirements from D.21-06-035 and will hopefully be able to harmonize these procurements to reduce costs, improve resource dispatchability (to better align renewable resource delivery profiles to the City's load profile) and avoid any need to over-procure resources.

IV.B. Responsiveness to Local and Regional Policies

(i) Responsiveness to Policies of RMEA's Governing Council

RMEA is a local governmental agency that is subject to the control of the City's Governing Council and is directly accountable to the community that it serves. RMEA generally supports and is committed to meeting the state's GHG reduction and renewable procurement goals. Furthermore, and as noted elsewhere in this RPS Procurement Plan, the City has adopted near-term renewable portfolio targets that closely align with RPS mandates. As a result, the

City's supply portfolio will be structured to achieve and sustain RPS compliance at the lowest possible cost (which is a key objective of the City's CCA program).

(ii) Responsiveness to Regional Policies

As noted in the previous sub-section, the City is overseen by its governing council, which also serves as the governing board/authority for its CCA program. As such, the policies adopted by the City's governing council (related to CCA operations) serve as guiding directives for CCA operations, including the determination of renewable energy planning targets that are intended to support local policy preferences.

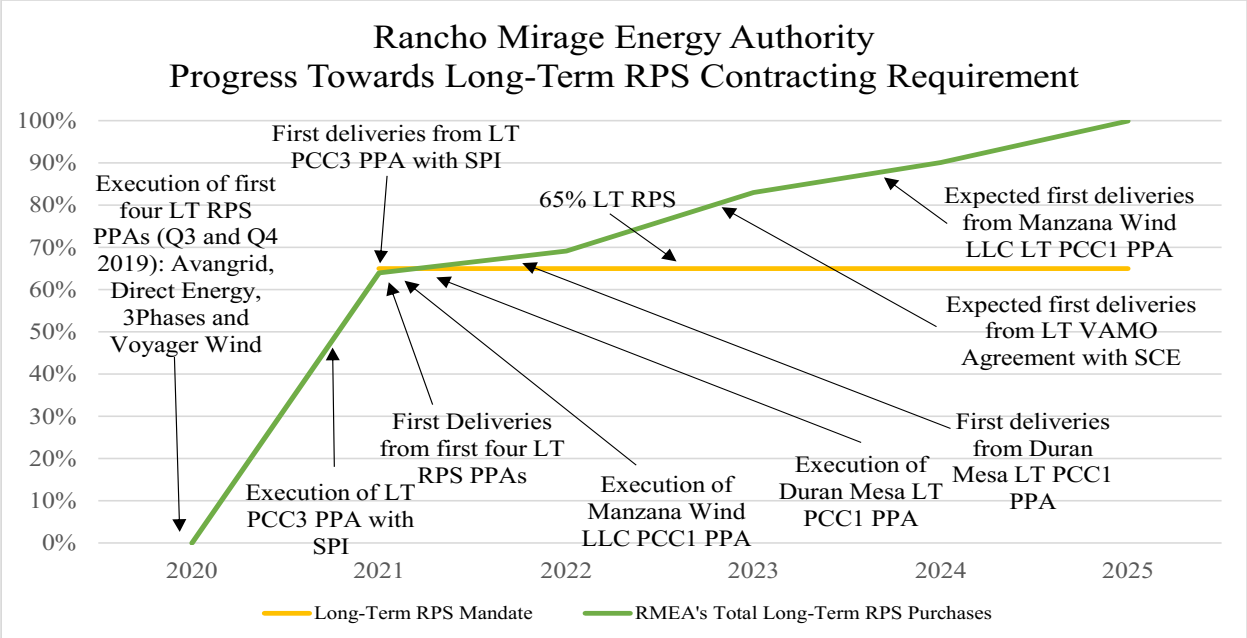
IV.B.1. Long-term Procurement

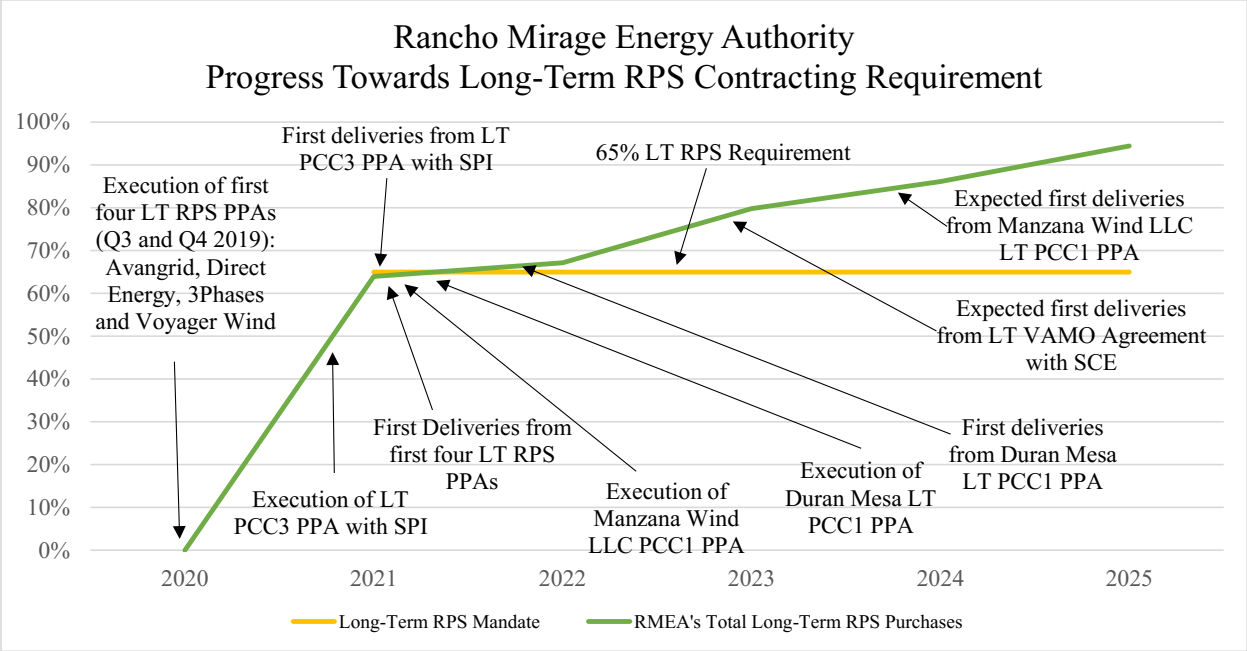
Pursuant to Public Utilities Code section 399.13(b), from 2021 onwards, 65 percent of mandated renewable energy purchases must be sourced from contracts of 10 years or more. The City has been conscientiously planning and procuring to meet this requirement and is making good progress in this regard. Based on existing long-term supply commitments, the City expects to achieve compliance with the long-term contracting requirement in the current compliance period, Compliance Period 4 (2021-2024). Additional long-term contracting efforts will be pursued to support RMEA's ongoing RPS compliance in Compliance Period 5 and 6.

Regarding recent additions to the City's long-term RPS supply portfolio, RMEA executed an additional long-term PCC1 supply agreement with a New Mexico-based wind resource on April 21, 2021 – initial project deliveries commenced in December 2021 and will provide RMEA with approximately 8,000 MWh/year of incremental PCC1 volume during the fifteen-year contract term. RMEA is also in late-stage negotiations with an experienced supplier of long-term PCC1 products and expects to finalize such negotiations (and execute a related supply agreement) around the time that this RPS Procurement Plan is submitted – RMEA looks

forward to updating the Commission regarding the successful execution of this agreement and its impact on the organization's resource planning efforts in a future RPS Procurement Plan.

The following chart reflects the City's current and anticipated progress in meeting California's long-term RPS contracting mandate in Compliance Period 4 and beyond. Note that this chart now includes anticipated long-term VAMO volumes in 2023 and beyond, which meaningfully increased the City's long-term RPS positions relative to those reflected in the City's initial Draft 2022 Plan. The City notes that existing long-term contracts, including the recently executed addition to its long-term RPS supply portfolio, are expected to fulfill its long-term contracting requirements in CP4, plus a reasonable reserve. Should any delivery delays occur, the City will pursue other long-term contracting opportunities and will advise the Commission of such procurement activities.





As reflected in the previous chart, the City expects to exceed applicable long-term RPS procurement mandates in Compliance Period 4. More specifically, for Compliance Period 4, the City expects to procure 132% of its required long-term RPS mandate (which means that the City expects to procure 86% of total statutorily mandated RPS purchases from long-term contracts), based on expected RPS deliveries of 405 GWh, relative to a projected long-term procurement obligation of 306 GWh. Similarly, in Compliance Period 5, which includes calendar years 2025 through 2027, the City expects to procure 136% of its required long-term RPS mandate (which means the City expects to procure 89% of total statutorily mandated RPS purchases from long-term contracts), based on expected RPS deliveries of 399 GWh, relative to a projected long-term procurement obligation of 293 GWh. In Compliance Period 6, which includes calendar years 2028 through 2030, the City expects to procure 115% of its required long-term RPS mandate (which means the City again expects to procure 75% of total statutorily mandated RPS purchases

from long-term contracts), based on expected RPS deliveries of 398 GWh, relative to a projected long-term procurement obligation of 346 GWh. These projections are based on estimated annual deliveries to be received under the City's current long-term RPS supply agreements, including its long-term VAMO supply agreement with SCE. While the City previously advised the Commission of its intent to accept certain long-term RPS volumes under VAMO, this agreement has now been finalized, so related volumes are forthcoming. Based on expected long-term RPS deliveries, the City believes it will be able to successfully achieve compliance with long-term RPS procurement mandates through 2030 under a variety of adverse scenarios in which delivery shortfalls could occur. This noted, the City expects to strategically pursue additional long-term RPS supply, via solicitations administered by CalChoice and bilateral contracting discussions, to increase long-term planning reserves, promoting increased compliance certainty in advance of future operating periods.

~~As previously noted, RMEA has made considerable progress in addressing outstanding long-term RPS open positions. The City expects to regularly engage in jointly administered long-term renewable solicitations via its association with CalChoice and anticipates the execution of additional RPS supply agreements over time. In particular, RMEA is participating in a joint CalChoice, Desert Community Energy Authority and Clean Energy Alliance Mid-Term Reliability Request for Proposals, which was released in January 2022. Responses were returned on February 4, 2022, and RMEA, along with CalChoice, is currently negotiating with shortlisted respondents. Projects are expected to be online to meet the various deadlines in D.21-06-035 between 2023 and 2025. Based on RMEA's ongoing success in fulfilling projected long-term open positions in Compliance Period 4, its current long-term RPS needs are very small. To address such needs, it may engage in other procurement processes to address future open~~

~~positions for long-term RPS supply.~~ RMEA understands that fulfilling upcoming long-term contracting requirements (in 2025 and beyond) will~~may~~ be somewhat iterative, but the City's recent acceptance of certain long-term VAMO allocations has ~~is expected to~~ created future RPS planning surpluses, which may be retained or re-sold to promote balance between RPS procurement requirements and actual renewable energy deliveries. In the event that the City enters into other contracts with new-build renewable generating facilities, it will closely monitor project development progress and contract/project performance to ensure that actual long-term deliveries meet or exceed pertinent requirements. Any future long-term contracting efforts will be described in subsequent RPS Procurement Plans.

IV.C. Portfolio Diversity and Reliability

RMEA has considered and will continue to consider the deliverability characteristics of its current and future generating resources placed under contract (such as the resource's dispatchability, available capacity, and typical production patterns) and will review 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, and provide value to the local community. The City may also consider renewable energy plus storage options and stand-alone storage options, subject to availability and cost, which would allow RMEA to better align/dispatch available energy supply in consideration of customer usage patterns – such resource types may be eventually included in RMEA's supply portfolio as a result of its participation in the joint solicitation with CalChoice, Desert Community Energy Authority, and Clean Energy Alliance as described elsewhere in the RPS Plan. Solicitations of this sort, both current and future, should help alleviate grid impacts that could otherwise result from increased buildout of certain resources that may contribute to conditions of

over-generation. A quantitative description of this forecast is attached to this RPS Procurement Plan in Appendix C.

While the City is not opposed to considering emerging renewable generating technologies, it is unlikely that upcoming supply agreement(s) will focus on such resources – the City has yet to receive credible and cost-competitive proposals from emerging renewable generating technologies, but if such proposals arrive in the future, they will be closely considered alongside other viable options. Based on the City's renewable energy planning goals and intended reserve margins, its renewable supply commitments must result in reliable, cost-effective supply to promote compliance with applicable RPS mandates without bearing the risks typically associated with newer technologies. Until compelling proposals for emerging renewable generating technologies are received, the City will likely exhibit preferences for "tried and true" generating technologies, including energy storage options, that will minimize delivery risk during ongoing operation while allowing for re-shaping of certain renewable generating profiles to better align supply with demand.

The City will procure renewable and other energy products, as necessary, to ensure that the future energy needs of its customers are met in a manner that promotes reliability and cost-effectiveness, consistent with applicable compliance mandates and general objectives of the CCA Program. The City has established procurement targets for renewable energy supply, including subcategories for various renewable energy products, and has also established targets for related planning reserves as described elsewhere in this document – currently applicable renewable energy procurement targets generally mirror RPS mandates, plus the noted two percent planning reserve. To the extent that the City's energy needs are not fulfilled through the use of renewable generating resources, it should be assumed that such supply will be sourced

from conventional energy resources, such as natural gas generating technologies or system power purchases, or other carbon-free generating technologies (specifically, hydroelectricity) that may be necessary to further progress in meeting California's greenhouse gas emission reduction goals.

RMEA currently utilizes a portfolio risk management approach as part of the power purchasing program that is administered by CalChoice on its behalf, seeking low-cost supply (based on prevailing market conditions at the time of solicitation administration) as well as diversity amongst technologies, production profiles, project sizes and locations, counterparties, lengths of contract, and timing of market purchases. It is reasonable to assume that RMEA's supply portfolio will increase in complexity over time, utilizing an increasing number of supply contracts and related supplier relationships by emphasizing the principles of resource and counterparty diversity.

A key component of RMEA's planning process relates to the analysis and consideration of expected load obligations with the objective of closely balancing supply/demand, cost/rate stability and overall budgetary impacts. RMEA and CalChoice actively monitor actual customer usage, relative to projections, refining such forecasts as well as the ability to minimize variances between procured energy quantities and actual usage – while this process may not eliminate such variances, it should significantly reduce them, minimizing exposure of the CCA Program and its customers to unexpected cost spikes that may occur within California's power market. The City is committed to developing an accurate understanding of the manner in which its customers use electric power to promote an efficient and cost-effective procurement process.

As part of developing an understanding of how its customers use electric power, the City maintains load curves that reflect expected increases in load due to both transportation

electrification and building electrification. Transportation electrification planning considers personal light duty vehicles, electrification of fleets and local targets for electrification of public transit systems. The forecasting of the City's anticipated transportation electrification adoption rates is performed through the application of a fixed percentage annual increase that is informed by historical observations and generalized trends related to transportation electrification adoption. The information considered in this process includes the three scenarios (low, mid, high) identified in the California Energy Commission's Integrated Energy Policy Report ("IEPR") Demand Forecast.[2] The City is currently evaluating the development of a transportation electrification forecast that would be directly based on the mid scenario for transportation electricity demand of the IEPR Demand Forecast as well as other available data/information that would allow such a forecast to be directly tailored to its region. This data/information may include any applicable local policies related to transportation electrification, locally available incentives focused on transportation electrification, and/or data related to electric transportation adoption/conversion occurring within the City's region. Contracting with a diverse set of renewable resources from different locations throughout California and the West will be necessary to accomplish the goal of aligning a renewable energy portfolio to LSE's load curves.

With regard to the City's anticipated renewable energy requirements, RMEA maintains portfolio coverage targets of up to 100 percent in the near-term (0 to 2 years) but leaves larger open positions in the mid- to long-term, consistent with generally accepted industry practices. This noted, RMEA is aware of the eminent long-term contracting requirement of 65% and keeps this obligation in mind when addressing its longer-term portfolio coverage targets.

[2] *See* Javanbakht, Heidi, Cary Garcia, Ingrid Neumann, Anitha Rednam, Stephanie Bailey, and Quentin Gee. 2022. Final 2021 Integrated Energy Policy Report, Volume IV: California Energy Demand Forecast. California Energy Commission. Publication Number: CEC-1002021-001-V4, at 65.

At this point in time, the City has no explicit preference for specific renewable generating technologies and considers all resource types with the goal of assembling a diversified, cost effective renewable energy supply portfolio that will deliver energy in a profile that is generally consistent with the anticipated load shape of RMEA customers. RMEA is also aware that future reliance on intermittent renewable generating technologies has the potential to create occasional misalignments between customer energy consumption and power production as well as variances between the actual and expected quantity of renewable energy received from such projects. In order to better align the quantities of renewable energy with load, and help reduce variances between actual and expected quantities of renewable energy, the City is considering both stand-alone storage and hybrid or co-located storage and renewable energy projects. The City has also applied the previously described minimum margin of over procurement for renewable energy (set at 2% of retail sales). To the extent that significant, prolonged variances are observed between RMEA's actual and expected energy use, staff may propose increased planning reserves (beyond the current 2% of retail sales metric reflected herein).

IV.D. Lessons Learned

In communicating with and reviewing the RPS Procurement Plans of California's most mature CCA organizations as well as considering its own experiences in developing an RPS portfolio, the City observes that geographic diversity remains an important element in selecting renewable energy resources/contracting opportunities. The City observes that certain areas of the state have been overbuilt with renewable generating infrastructure, which has created challenges related to depressed market prices and increasing levels of resource curtailment. The City has kept this observation in mind when assembling its own renewable resource portfolio, avoiding overcommitment to resources within a narrowly defined geographic area. Based on

communications with CalChoice and other CCAs, the City also continues to evaluate historical pricing trends, which have materially changed in the wake of increased renewable energy buildout. Due to these transitions and suppressed (and oftentimes negative) market pricing, the City will likely avoid contracting with generators located in certain areas or require substantial storage capacity (operated in parallel with renewable generating infrastructure) to mitigate market price risk when considering renewable generating resources located in such areas. The City appreciates the substantial financial risks that are created by California's long-term renewable contracting requirements and will continue to explore opportunities to manage such risks during its contracting efforts.

V. Project Development Status Update

As described in Section IV.B above, RMEA's current and planned procurement is expected to be sufficient to meet applicable RPS procurement requirements while supporting the state's GHG reduction targets. Further, RMEA's current and planned procurement supports system reliability by considering both portfolio diversity and alignment with RMEA customers' load curve. Specifically, RMEA's selected projects fit within and support RMEA's plans for meeting these goals.

RMEA's ongoing contracting efforts have resulted in supply commitments with new/repowered generating assets and related (updated) details are included in the Project Development Status Update Report, Appendix D.

RMEA is pleased to be able to inform the Commission that its projects under development have achieved commercial operation**.** As reported in its Final 2021 RPS Procurement Plan, the Duran Mesa wind project located in Duran, NM commenced commercial operations in late 2021. The two other projects, RMEA had under development are both

operational; RMEA reported in its Final 2021 RPS Procurement Plan that ColGreen was operational and IP Athos achieved its commercial operations date on May 19, 2022.

Regarding RMEA's commitment to new-build renewable infrastructure, it has entered into the three RPS supply agreements mentioned in the prior paragraph, which demonstrate support for~~ing~~ new renewable infrastructure. As other favorable procurement opportunities are identified for new renewable generation, RMEA will thoroughly evaluate such opportunities against other available supply alternatives.

The City observes that there may be some confusion regarding the information reflected in Section V of its Draft 2022 RPS Procurement Plan. More specifically, Appendix D, as attached to the City's Draft 2022 RPS Procurement Plan, included as single row addressing the development status of projects associated with RPS Contract ID RMEA50012. This individual RPS contract, RMEA50012, includes two separate generating facilities, both of which have now achieved commercial operation. Status information related to these projects was generally described in Column W, Project Notes, indicating that ColGreen had achieved commercial operation as of the submittal of the City's Final 2021 RPS Procurement Plan; later, on May 19, 2022, IP Athos achieved commercial operation. The third project referenced in this section, Duran Mesa, achieved commercial operation in late 2021. Because all of these projects had achieved commercial operation prior to the submittal of the City's Draft 2022 RPS Procurement Plan, there were no entries included in Row 16 of the City's RNS reporting template, as there were no volumes that needed to be reported for Facilities in Development.

VI. Potential Compliance Delays

RMEA does not anticipate any compliance delays for the current compliance period (Compliance Period 4, which includes calendar years 2021-2024). Ongoing contracting

processes have resulted in the identification and execution of numerous renewable energy supply commitments, and RMEA's attention to annual balancing of requisite renewable energy purchases relative to retail sales is expected to put the CCA program in position where actual renewable energy deliveries closely align with (but slightly exceed) applicable compliance mandates during the current compliance period. RMEA is also making good progress in meeting the state's 65% long-term contracting requirement. RMEA will continue assessing projected long-term open positions relative to expected deliveries and intends to participate in future CalChoice-administered solicitations, as necessary, to ensure compliance with this element of the RPS Program. The City's recent decision to accept certain long-term allocations made available through the VAMO process is expected to solidify the achievement of applicable long-term RPS contracting mandates.

As a small CCA, the City recognizes that its portfolio of resources will be more limited than larger LSEs and that delays in online dates and reduced generation from the RPS contracts may have significant impacts on both its level of RPS and its progress to achieving 65% from long term contracts. The City has discussed this topic with CalChoice, which continues to manage such risk through the screening and evaluative processes associated with its renewable energy solicitations. In particular, a key element of proposal evaluation focuses on the identification and selection of highly experienced and financially viable renewable energy sellers – by pursuing supply commitments from such sellers, the City and CalChoice believe that the substantial majority of future delivery risk is avoided. This will be accomplished by completing a rigorous review of each prospective supplier's development and operational experience, track record of success (in terms of developing and/or operating renewable energy projects), financial standing and credit rating, familiarity with pertinent development milestones as well as the state

of completion for such items, customer references and various other considerations. During the completion of this process, the field of respondents will be significantly narrowed, leaving only the best qualified suppliers to undergo further consideration. The results of this process have led CalChoice, in cooperation with the City, to determine that further quantitative risk assessments have not been necessary thus far. In the future however, based on evolving market conditions, supplier interest or other circumstances, the City and CalChoice could determine that completion of quantitative risk assessments may be necessary and appropriate, depending upon the renewable energy procurement opportunities that happen to be pursued.

If a future compliance issue is identified or RMEA encounters challenges in securing requisite renewable energy supply, then RMEA will address such issue(s) in a subsequent RPS Procurement Plan.

As the Commission is aware, successful renewable energy markets depend upon international supply chains, substantial labor commitments, robust financial markets, timely interactions with governmental planning authorities and various other considerations. With numerous disruptions caused by the COVID-19 pandemic and various other challenges, it is incredibly challenging to determine if, and to what extent, renewable energy procurement opportunities may be compromised, particularly new-build renewable energy projects which typically rely on long-term contracts as the basis for project financing. The City will closely monitor energy usage patterns to determine if any planning adjustments may be necessary based on the current and expected economic conditions.

The City intends to closely monitor this situation as well as potential fallout related to supplier/developer effectiveness in fulfilling mandated renewable energy needs, project completion and overall supplier viability – the City is aware that many supply chains have been

disrupted during the pandemic with a variety of material/component shortages occurring throughout the industry; recent concerns regarding the application of tariffs on certain imported renewable infrastructure have also provoked certain supplier to request "reopening" of previously executed contracts and/or the negotiation of terms that allow for price adjustments in the event of unexpected costs (such as the noted tariff). While the tariff issue seems to be temporarily resolved, concerns of this nature have introduced a measure of instability in the long-term contracting efforts of many retail sellers. With these concerns in mind, the City encourages the Commission to closely monitor and potentially reconsider certain elements of the RPS Program as this situation evolves, particularly if there are widespread, well-documented challenges as California retail sellers attempt to fulfill pertinent procurement requirements. Related, the City is aware of numerous instances in which contract documents are being drafted with more expansive force majeure language to alleviate the concerns of sellers/developers in meeting project completion schedules due to potential pandemic-related delays – "day for day" commercial operation date extensions have been pursued, creating flexibility in achieving commercial operation date targets based on the duration of shelter-in-place directives. From the City's perspective, which is informed by guidance provided via CalChoice, buyers must be diligent in contracting efforts to strike an appropriate balance between flexibility and certainty – not all project development delays are expected to be directly attributable to the pandemic, so effectively parsing contractual accommodations (for development delays) in consideration of this reality should serve to manage uncertainties related to project completion and renewable delivery timelines.

The City also encourages the Commission to coordinate closely with the Legislature to evaluate potential adaptations to the RPS Program, which may become necessary if renewable

energy markets are materially impacted by the pandemic. With rapidly changing circumstances and related information, the City anticipates the need for considerable flexibility/agility in working to meet requisite renewable energy procurement mandates. In the meantime, the City will remain hopeful that impacts to renewable energy markets will not compromise California's ability to reach its renewable energy procurement goals or its own, internally established renewable procurement targets.

VII. Risk Assessment

Compliance Risk

An important element of the City's RPS risk assessment process is determining potential vulnerabilities related to procurement and/or delivery shortfalls that could trigger deficits relative to the City's anticipated compliance obligations. Considering the City's internally adopted renewable energy procurement targets and existing contractual commitments, this risk, as internally determined by the City in consultation with CalChoice, appears to be very low in Compliance Period 4 and beyond. As discussed elsewhere in this planning document, the City has established a MMoP that informs RPS procurement efforts and insures against compliance-related shortfalls. A recent letter from CPUC staff supports this assessment. More specifically, this letter, which was sent by the CPUC's Deputy Executive Director for Energy and Climate Policy in early December 2022, provided an assessment of the City's perceived RPS compliance risk for Compliance Period 4 (calendar years 2021 through 2024). According to the letter, the assessment was based on information included in the City's 2021 RPS Compliance Report, as submitted in the summer of 2022. Risk levels were assigned by the CPUC and identified as low, medium or high based on reported progress towards applicable RPS procurement mandates. In its letter, the City's risk level was categorized as "low."

Following submittal of its 2021 RPS Compliance Report, the City coordinated with SCE regarding its acceptance of long-term RPS volumes made available under the VAMO process. As indicated (above) in Section IV.A.1. of this plan, the City accepted 40% of its available long-term VAMO allocations, which meaningfully increased its anticipated RPS deliveries in Compliance Period 4 and beyond. With these incremental RPS volumes now included in the City's planning assumptions, the City expects that it will receive renewable energy volumes approximating 112% of its procurement quantity requirement in Compliance Period 4. On a projected basis, this satisfies the City's compliance obligations as well as its MMoP, providing additional flexibility in the event that retail sales surpass expectations or variable RPS deliveries (such as those related to VAMO) fall below projections. Again, the City believes that its internally adopted renewable energy procurement targets (reflective of statutory RPS mandates, plus its MMoP), as well as existing contractual commitments, leave the City very well positioned to meet its ongoing RPS compliance obligations in Compliance Period 4 and beyond. It is important to note that the City may also be procuring additional short-term renewable energy supply in both 2023 and 2024 to ensure it meets its renewable energy procurement targets; such purchases will be arranged if currently contracted renewable energy deliveries fall below expectations. *Based on the City's assessment of compliance risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.* If anything happens to change in terms of the City's internal assessment of RPS compliance risk, it will inform the CPUC accordingly in a future RPS Procurement Plan.

The City will make reasonable efforts to minimize the risk of renewable procurement shortfalls for purposes of complying with applicable RPS mandates established in SB 100, but it cannot definitively predict the scope or magnitude of circumstances that may impact annual

retail energy sales, renewable energy markets or individual project performance. With this in mind, the City will responsibly assess RPS compliance risk by considering three key planning elements: 1) retail sales variability; 2) renewable energy production/delivery variability; and 3) impacts to overall system reliability associated with the City's planned RPS purchases and other influences. These topics will be generally considered in the noted sequence with observed risks informing potential adaptations to the City's planning process, potential adaptations to planning reserves and, ultimately, refinements to the City's renewable energy procurement (or sales) processes and quantities. As described elsewhere in this RPS Procurement Plan and in consideration of City-adopted RPS planning targets, the City expects to be well-positioned to meet its RPS compliance requirements in Compliance Period 4 (and beyond). Therefore, the City's self-determined risk of non-compliance is low. Nevertheless, the City will continue to assess demand-side and supply-side risks to better understand potential areas of concern and to promote achievement of organizational compliance objectives. If the City's self-determined risk of non-compliance happens to change in the future, it will accordingly advise the Commission of such assessment, related causes and anticipated remedial actions.

Regarding demand-side risk, the City continues to evaluate prospective retail sales during the 10-year planning period, including but not limited to new development projects (that could increase retail energy consumption) and business closures, expected customer attrition (or growth) and changes to behind-the-meter generating capacity. From a practical perspective, the greatest demand-side risk with regard to the City's anticipated customer base is that retail sales are meaningfully higher than anticipated during Compliance Period 4. As the Commission is aware, CCAs provide an opportunity for customer choice, allowing customers to voluntarily participate in the City's program or remain bundled customers of the incumbent utility, SCE. To

the extent that customers choose to leave the City's CCA program, or "opt out", the City's retail sales will decrease, resulting in related increases to the ratio of renewable energy serving such customers (and improving the City's position relative to applicable RPS compliance mandates) – it is unlikely that the City's renewable supply commitments will provide volumetric flexibility/options in the event of higher-than-anticipated retail sales volumes; in such instances, the City would need to pursue additional procurement opportunities to address unanticipated open positions. The CCA program has been operating since 2018, and its customer base appears to be relatively stable; barring any unforeseen circumstances, substantial year-over-year variations in retail sales are not expected to occur. Also, considering the City's ongoing coordination with its planning department, the City expects to be well informed regarding upcoming development projects or other customer changes that could materially increase retail sales. For this reason, the City believes that demand-side RPS compliance risk is manageable.

Regarding supply-side risks, the City is aware of the generation variability/intermittency associated with certain renewable technologies as well as the possibility of curtailment (based on pricing considerations or market directives) during certain times of day/year – with regard to curtailment, the City has learned from the experiences of LCE, a fellow CalChoice member, but the supply-related impacts associated with such curtailment activities at the Western Antelope Dry Ranch photovoltaic generating facility (in Lancaster, California; this facility is under long-term contract with LCE) have been very low over the past three years; additional detail related to LCE's experience with curtailment is provided below. In the case of new-build renewable projects, the City is also aware of the possibility of project delays and, potentially, project failure. Such circumstances can materially diminish renewable energy deliveries, jeopardizing the achievement of RPS compliance and exposing the CCA program to unexpected financial

consequences, if such circumstances impact larger (or multiple) supply sources. Based on the City's relatively modest RPS planning reserve, it will need to be highly selective in identifying its renewable energy suppliers, particularly those offering supply from new-build generating facilities, and will generally focus on organizations that have well-documented track records of successfully fulfilling RPS delivery obligations.

To the best of the City's knowledge, few early-stage CCAs have experienced difficulties with generalized renewable energy procurement, but long-term RPS contracting has been more challenging – typical lead times (between contract execution and project completion) associated with new-build renewable energy projects are often 2-3 years or longer, and related power supply contracting efforts are rarely initiated so far in advance of service commencement. With this observation in mind, early-stage CCAs must either: 1) focus RPS contracting efforts on existing renewable generating resources; or 2) accept failure/delay risks associated with new-build renewable projects placed under contract near the time of CCA launch by incorporating reasonable planning reserves to mitigate such risks. In the case of the City, a balanced approach has been pursued, which will focus on contracting efforts with both new and existing renewable generating resources, thereby minimizing, but not eliminating, risks associated with compliance shortfalls while promoting new renewable infrastructure buildout that will be required to meet California's increasing renewable procurement mandates. The City expects to pursue long-term RPS contracts that will yield delivery surpluses relative to applicable compliance mandates and such surpluses are expected to mitigate concerns related to project development delays and or failures during Compliance Period 4.

The City also anticipates mitigating supply-side risk by incorporating fixed-volume and index-plus pricing structures amongst its portfolio of RPS supply agreements. These

procurement mechanisms serve to mitigate the risk of delivery variability (typically associated with intermittent renewable resources and/or renewable resources that may be subject to periodic curtailment) and exposure to negative market pricing (which could prompt economic curtailment). Fixed volume arrangements, in particular, also mitigate risk associated with commercial operation delays and facility failure; these structures also provide buyers with financial protections (via penalty payments) for under-delivery (which could be used, as a last resort, to offset compliance penalties in the event that the supplier or the City are unable to identify replacement volumes).

As part of the City's approach to managing supply-side risk (which will be carried out through its relationship with CalChoice), it has also adopted what it believes to be a CCA best practice related to RPS contracting: structuring solicitations to identify proven renewable generating technologies in RMEA resource locations to be developed and/or operated by the most experienced available suppliers (with strong, well-documented track records of successful project completion and operational reliability). Unlike certain of the IOU's early-stage contracting efforts, which focused on experimental/unproven renewable generating technologies, CCAs have generally focused early-stage contracting efforts on tried-and-true technologies and highly experienced counterparties – the City intends to follow this practice as well.

This noted, there is always a possibility that future renewable energy supply will not be delivered as required, which is why the City, based on discussions with CalChoice, has incorporated a 2% minimum margin of procurement in its renewable energy planning process. The 2% minimum margin of procurement, or "planning reserve", has been determined to be sufficient, as discussed below, but this metric will undergo periodic review and, if necessary, revision during future planning discussions and in consideration of ongoing procurement efforts.

The City has compiled information about curtailments of renewable energy in CAISO over the last four years. This information is presented below. The data shows that renewable curtailment has been consistently under 1% of load. The City also analyzed the occurrence of negative prices within the SP-15 area of the CAISO. These studies, combined with the analysis of other risk discussed below, indicate that the 2% minimum margin of procurement adopted by the City should be sufficient, allowing for additional variability in supply. These past results are obviously not indicative of what might occur in the future, and indeed the data shows that the trend of renewable curtailment has generally been increasing. However, the City has considered recent and expected developments in energy markets and believes that increases in curtailments and negative prices should not continue growing as seen in the last few years. There are several reasons for this. First, the amount of storage available on the CAISO system, much of it tied directly to renewable resources, has grown dramatically over the last year and is expected to continue this explosive growth over the next few years. The growth of storage should provide a sink for large amounts of renewable energy that might today be curtailed, especially since much of the storage is co-located with the renewable energy. Exports of energy from the CAISO during periods of low prices when renewable curtailment would likely occur have also been increasing as the rest of the west begins to recognize the benefits to using this cheap energy from California when it is available. In addition to storage and exports, expected increases in transportation and building electrification will likely increase demand and also provide a sink for the rapidly increasing amounts of renewable energy. The changes brought about by climate change may also reduce the curtailment of renewable resources. This can be seen in the reduction in curtailments that occurred in 2021 which was at least partially due to the reduction in hydro generation due to the ongoing drought. As temperatures in California increase it is expected that

annual snowpacks will decrease reducing the amounts of hydro generation. Additional, climate change is expected to increase the volatility of weather, likely leading to more years with low hydro generation in the future.

The City has recently attempted to quantify the energy impacts of such supply side losses into three main categories: 1) curtailment risk; 2) counterparty risk; and 3) project cancellation risk. These risks, as previously discussed, pose the greatest impacts to the delivery of RPS energy. In addition to the historical curtailment analyses already discussed (and further elaborated on below), the City has examined forwarding looking data concerning curtailment risk as the likelihood the market forward curves are below -$15/MWh on an annual basis from the year 2022 to the end of the contract's life. Below this dollar amount, the City is likely better off financially curtailing the unit and purchasing additional renewable energy credits on the secondary market. The figures presented in the column quantifying curtailment risk are calculated by taking the energy delivered to market and multiplying it by the likelihood of curtailment. *Based on the City's assessment of curtailment risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.*

Counterparty risk is the risk posed by a counterparty being unable or unwilling to honor their total RPS delivery obligations, as reflected in related contract documents. The City quantifies this likelihood by considering S&P Global's, Global Corporate Annual Default Rates by Rating Category (%) as a measure of organizational viability and financial stability. While this rate considers industries beyond the energy sector, it provides solid insights into the correlation and potential impacts of dealing with uncreditworthy counterparties. The likelihood of default by credit rating was averaged over the years from 2014 to 2019. These years were chosen to remove irregularities in default rates during the COVID-19 pandemic. If a counterparty

was found to be unrated, then the contract was reviewed to identify specified credit assurances; based on such assurances, an approximate rating was derived based on experience and risk tolerance. *Based on the City's assessment of counterparty risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.*

The final category reflected in the City's analysis is project/contract cancellation risk. This category is distinct from the counterparty risk category because the risk of project/contract cancellation may only affect a single project under a counterparty's portfolio. Projects may be cancelled for a variety of reasons, but in today's market economy, deals struck several months to a year ago may no longer be economic for the seller. It was assumed this risk only effects single source projects, which have yet to be constructed. These projects were chosen because they have a single point of failure unlike RPS energy purchased from a pool of resources (under a portfolio-style purchase agreement in which there is generally more diversity amongst the sources of supply). Based on discussions with various counterparties and its industry knowledge, the City will assume this risk effects 1 in 20 deals. *Based on the City's assessment of project failure/contract cancellation risk associated with its renewable energy contract portfolio, this risk category was assigned a rating of low.*

Considering these categories holistically, the City is able to derive a cumulative energy percentage at risk. To add to the City's conservative tolerance for risk, a top-level risk of non-delivery offset at 0.25% of renewable energy procurements will be added to the calculated energy at risk percentage. This adder will help to express risks the City cannot foresee and help to better guarantee full compliance through the assumption of lower than expected RPS deliveries (which will necessitate higher levels of RPS procurement, via renewable energy planning reserves). The percentage of renewable energy and error is the percentage of total

renewable energy procured, while the percentage of retail load is the energy at risk as a percentage of retail load. These "at risk" percentages reflect possible losses which, through no fault of the City, may occur by virtue of being a market participant. These losses pose a risk for non-compliance relative to the City's RPS goals and targets. Since this number is not a guaranteed loss, the City will implement the previously mentioned mitigation strategies to give the greatest chance of full market delivery and compliance.

			Energy	Delivery & Market Risks		
ID	Contract	RPS Contract ID	Energy to be Delivered to Market (MWh)	Curtailment Risk (MWh)	Counterparty Risk (MWh)	Project Cancellation Risk (MWh)
1	Contract 1373	0	108,000	-	2,076	-
2	Contract 1379	0	283,500	-	5,449	-
3	Contract 1380	0	167,737	396	3,224	-
4	Contract 1691	0	445,375	1,053	8,560	-
5	Contract 1804	0	5,000	-	-	-
6	Contract 2102	0	52,920	-	1,017	-
7	Contract 2532	0	12,000	-	231	-
8	Contract 2687	0	310,260	-	5,963	-
9	Contract 2802	RMEA70019	464,100	-	8,920	-
10	Contract 2971	RMEA90020	13,000	-	-	-
12	Contract 3708	RMEA90028	60,000	-	1,153	-
Total			**1,921,893**	**1,449**	**36,593**	**-**

Energy

Total Renewable Energy	**1,921,893**
Total Renewable Energy at Risk	**38,042**
Pct of Renewable Energy at Risk	**1.98%**
Pct of Unknown Error at Risk	**0.25%**
Pct of Renewable Energy & Error at Risk	**2.23%**
Pct of Retail Load	**1.27%**

Based on the City's analysis and in consideration of the City's current RPS supply portfolio delivering through 2030, the City determined that 1.98 percent of its expected future RPS deliveries may be at risk, which equates to 1.27 percent of the City's retail load. These

percentages reflect average risk throughout the study period, which suggests that actual risk could fall somewhat above these percentages. Regardless, the potential risk-related impacts to the City's RPS supply portfolio fall well below the 3.3-5.6 percent MMoP (measured as a percentage of retail load) reflected in its RPS planning process. The City is also aware of other risk categories, including supply chain risk, technology risk and resource intermittency risk, which have also been considered qualitatively as part of the City's risk assessment. At this point in time and in consideration of the City's existing contractual commitments, the risks within these categories are generally low. Supply chain risk, for example, would be a relevant concern if the City had significant supply commitments from renewable generating resources that had yet to achieve commercial operation, but there is no exposure in this regard. Technology risk, meaning the risk that future technological enhancements will result in the maintenance of a renewable supply portfolio that is meaningfully comprised of obsolete resources (based on ongoing technological enhancements that reduce the incremental cost of future renewable energy purchases relative to existing technologies), is a legitimate concern, but given the time-sensitive and inflexible nature of California's RPS compliance mandates, there are very limited alternatives when constructing renewable energy portfolios. To mitigate the risk of compliance shortfalls, the City must procure from available technologies, often over delivery terms of ten years or more, to satisfy applicable compliance mandates, so there is little opportunity to defer procurement activities while waiting for technological improvements to occur, particularly when considering the punitive financial penalties that can be assessed for falling short of applicable compliance mandates. While technological risk could be aptly categorized as medium or high, it is essentially unavoidable for new and small CCA enterprises. Over time, however, the City will ensure that it staggers contracted delivery terms and pursues technological diversity to reduce

such risks to the greatest practical extent. The risk of resource intermittency is a legitimate concern, particularly for recently contracted VAMO volumes, which, based on the City's understanding, will be delivered from a variety of intermittent renewable generating technologies. For its VAMO deliveries, the City will actively monitor actual deliveries relative to projections and will reassess this risk category based on its observations in this regard – to the extent that intermittent technology types regularly produce less volume than anticipated, the City may be motivated to increase its MMoP or incorporate other planning adjustments. The balance of the City's existing RPS portfolio is diversified through substantial commitments to fixed-volume contracts, so intermittency risk is only relevant for a relatively small portion of its RPS supply portfolio. *In consideration of the results of the City's risk analysis, the composite risk assessment, which considers all of the previously described risk categories, results in an overall risk rating of low.* As the City's RPS supply portfolio evolves, including the addition of future long-term VAMO supply, the City will update its risk assessment and advise the Commission of related results.

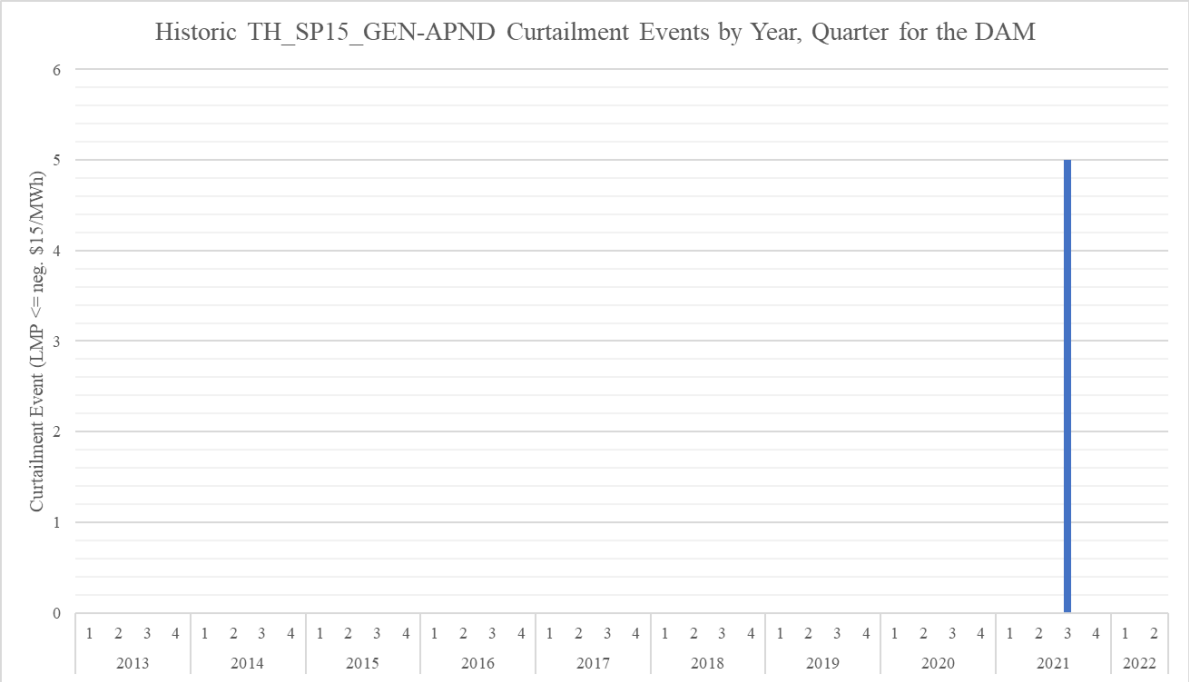
As previously mentioned, the City has also analyzed historical data on curtailments in the CAISO energy markets. In the CAISO energy markets, much of the curtailment of renewable resources is achieved through the market process because of renewable energy resources voluntarily submitting bids into the energy markets which cause them to shut down when market conditions create low energy prices. Because of this structure the curtailment data provided will also be indicative of when negative prices occur. The City recognizes this connection and thus the analysis above as to why curtailments are not expected to increase as they have over the past few years also informs expectations of negative prices. As explained elsewhere in this document, the City has taken steps through its contracting to reduce its risk exposure to low prices and

curtailment of renewable resources.

Annual Curtailments (MWh)			
		Wind	Solar
2018		28,686	432,357
2019		43,557	921,684
2020		90,276	1,497,220
2021		78,477	1,426,326
Annual Curtailment (% of specific generation)			
2018		0.17%	1.56%
2019		0.27%	3.22%
2020		0.56%	4.99%
2021		0.41%	4.19%
Annual Curtailment (% of Load)			
2018		0.013%	0.191%
2019		0.020%	0.420%
2020		0.041%	0.683%
2021		0.036%	0.647%

The City has also analyzed negative prices in the CAISO, as these can greatly affect the siting and operation of CCA owned and contracted assets. The City has endeavored to quantify the occurrence of such events to help limit their financial and regulatory impact. With limited means of forecasting such events, the City has assembled this additional historic analysis with the average results being used in the City's forecasting assumptions for curtailment events.

Below are several charts which illustrate the number of historic curtailment events. The City defines a curtailment event as the times the location marginal price (LMP) drops below negative $15/MWh. It is assumed below this price it is financially prudent to curtail a renewable generators energy production and procure renewable energy credits (RECs) on the secondary market. Estimates for the real-time market (RTM) have been averaged over the hour, so only the average price is evaluated.


Historic TH_SP15_GEN-APND Curtailment Events by Year, Quarter for the DAM
Curtailment Event (LMP <= neg. $15/MWh)
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

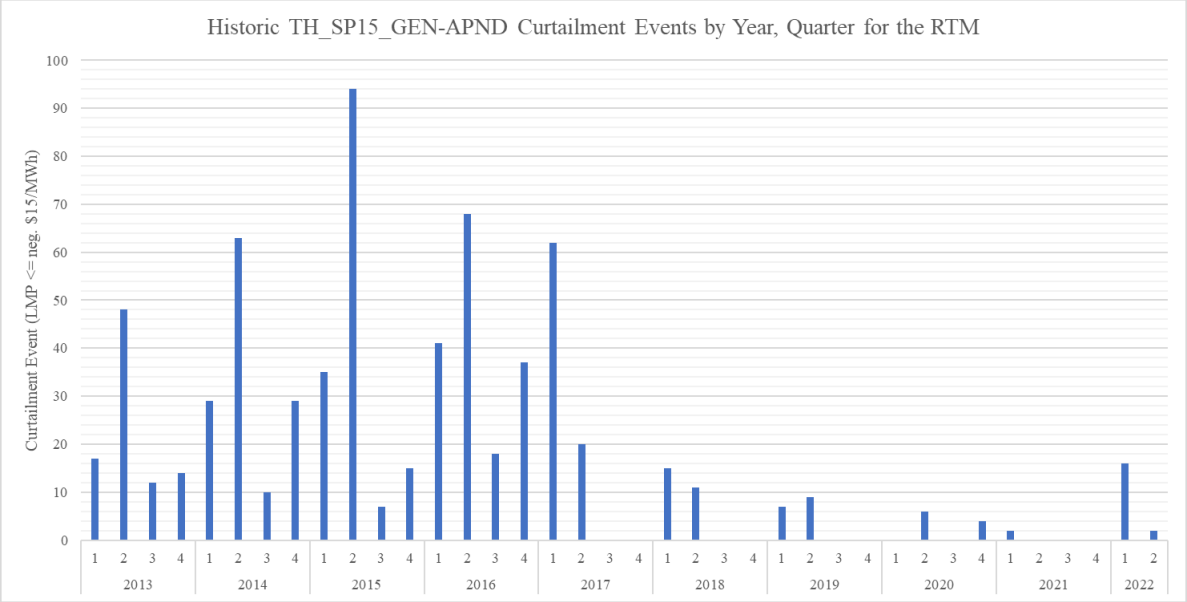

Historic TH_SP15_GEN-APND Curtailment Events by Year, Quarter for the RTM
Curtailment Event (LMP <= neg. $15/MWh)
0
10
20
30
40
50
60
70
80
90
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

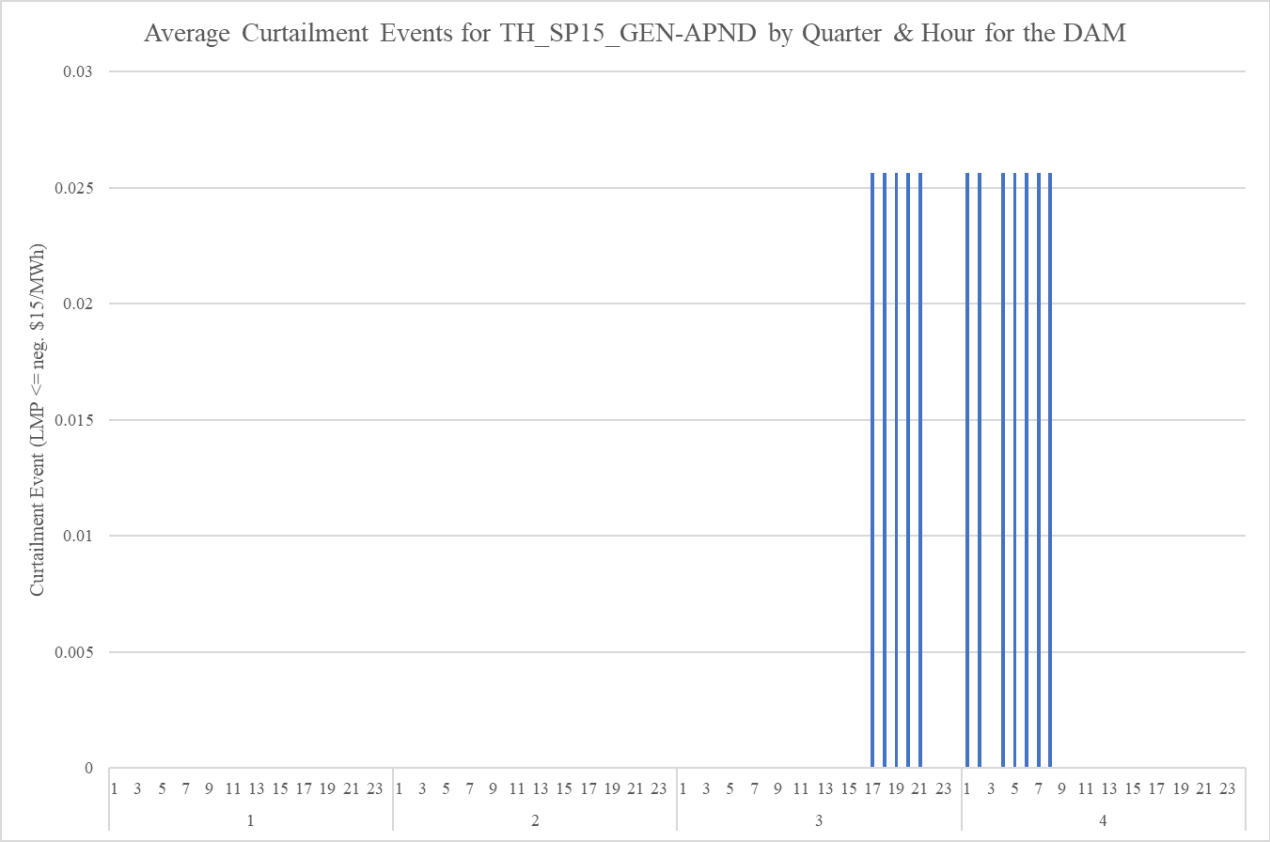
Table: SP15 DAM Curtailment Events by Year, Quarter, & Hour

	2013				2014				2015				2016				2017				2018				2019				2020				2021				2022	
	Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter	
Hour	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**
1	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	0	0	0	0	0	0	0	0	0	0	0
2	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	0	0	0	0	0	0	0	0	0	0	0
3	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	0	0	0	0	0	0	0	0	0	0	0
4	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	0	0	0	0	0	0	0	0	0	0	0
5	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	0	0	0	0	0	0	0	0	0	0	0
6	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	0	0	0	0	0	0	0	0	0	0	0
7	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	0	0	0	0	0	0	0	0	0	0	0
8	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	0	0	0	0	0	0	0	0	0	0	0
9	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	0	0	0	0	0	0	0	0	0	0	0
10	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	0	0	0	0	0	0	0	0	0	0	0
11	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	0	0	0	0	0	0	0	0	0	0	0
12	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	0	0	0	0	0	0	0	0	0	0	0
13	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	0	0	0	0	0	0	0	0	0	0	0
14	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	0	0	0	0	0	0	0	0	0	0	0
15	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	0	0	0	0	0	0	0	0	0	0	0
16	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	0	0	0	0	0	0	0	0	0	0	0
17	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	0	0	0	0	0	0	0	1	0	0	0
18	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	0	0	0	0	0	0	0	1	0	0	0
19	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	0	0	0	0	0	0	0	1	0	0	0
20	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	0	0	0	0	0	0	0	1	0	0	0
21	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	0	0	0	0	0	0	0	1	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0
23	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	0	0	0	0	0	0	0	0	0	0	0
24	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	0	0	0	0	0	0	0	0	0	0	0
Total Quarter	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	0	0	0	0	0	0	0	5	0	0	0
Total Year	0				0				0				0				0				0				0				0				5				0	

Table: SP15 RTM Curtailment Events by Year, Quarter, & Hour

	2013				2014				2015				2016				2017				2018				2019				2020				2021				2022	
	Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter				Quarter	
Hour	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**
1	0	1	0	0	1	0	0	4	1	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	4	1	1	1	2	1	3	3	1	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	9	4	3	3	7	0	3	4	3	0	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	5	2	0	7	9	2	3	2	6	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2	7	1	1	1	4	1	2	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	4	3	1	0	0	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	2	2	1	0	0	4	1	0	0	1	0	0	1	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
8	0	1	0	0	0	2	2	0	0	3	1	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	2	5	0	1	0	5	1	0	4	12	1	1	3	5	4	2	5	4	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
10	0	6	1	2	3	7	1	1	2	8	3	3	2	9	5	6	10	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11	2	1	1	2	4	8	1	3	3	5	1	1	3	11	4	5	7	1	0	0	1	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0
12	1	0	0	1	2	3	0	4	2	6	0	2	4	3	2	10	5	2	0	0	1	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	1	1
13	0	1	0	1	2	1	0	2	2	4	0	2	4	3	1	3	2	1	0	0	1	1	0	0	1	1	0	0	0	1	0	1	0	0	0	0	3	0
14	1	0	0	1	2	1	0	0	2	6	0	1	4	6	1	6	5	2	0	0	2	0	0	0	4	1	0	0	0	1	0	1	1	0	0	0	3	1
15	1	2	0	1	1	3	0	1	2	6	0	2	5	7	1	4	7	2	0	0	3	1	0	0	1	2	0	0	0	1	0	0	1	0	0	0	3	0
16	0	0	0	0	1	3	0	1	4	7	0	1	5	7	0	1	8	2	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0
17	0	0	0	0	1	2	0	0	1	9	0	0	4	3	0	0	2	2	0	0	4	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0
18	0	0	0	0	0	1	0	0	0	7	0	0	2	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
19	1	0	0	0	0	0	0	0	1	3	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	0
20	1	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	0	0	0	0	0	0	0	0	0	0
21	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	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	1	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	0	0	0
24	0	1	0	0	0	0	0	0	1	3	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Quarter	17	48	12	14	29	63	10	29	35	94	7	15	41	68	18	37	62	20	0	0	15	11	0	0	7	9	0	0	0	6	0	4	2	0	0	0	16	2
Total Year	91				131				151				164				82				26				16				10				2				18	

Using the historic data illustrated above, the City has created the below forecast to use when evaluating contracts and projects located in or near the LMP's area. This forecast helps the City to estimate the quantity of time energy will be curtailed from a renewable energy project.


Average Curtailment Events for TH_SP15_GEN-APND by Quarter & Hour for the DAM
Curtailment Event (LMP <= neg. $15/MWh)
0.03
0.025
0.02
0.015
0.01
0.005
0
1 3 5 7 9 11 13 15 17 19 21 23
1
2
3
4

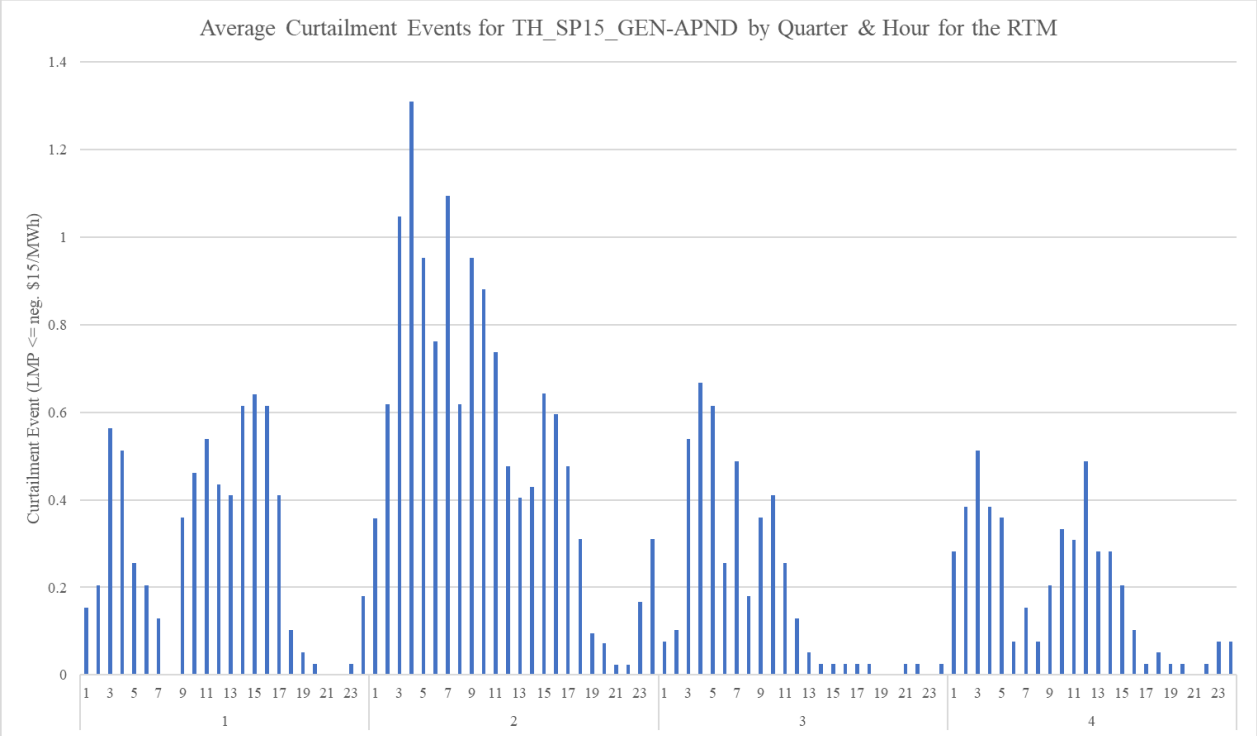

Average Curtailment Events for TH_SP15_GEN-APND by Quarter & Hour for the RTM
Curtailment Event (LMP <= neg. $15/MWh)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1 3 5 7 9 11 13 15 17 19 21 23
1
2
3
4

Table: TH_SP15_GEN-APND Average DAM Hourly Curtailment Event Forecast

	Quarter			
Hour	**1**	**2**	**3**	**4**
1	0.00	0.00	0.00	0.03
2	0.00	0.00	0.00	0.03
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.03
5	0.00	0.00	0.00	0.03
6	0.00	0.00	0.00	0.03
7	0.00	0.00	0.00	0.03
8	0.00	0.00	0.00	0.03
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00
17	0.00	0.00	0.03	0.00
18	0.00	0.00	0.03	0.00
19	0.00	0.00	0.03	0.00
20	0.00	0.00	0.03	0.00
21	0.00	0.00	0.03	0.00
22	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00
Total Quarter	0.00	0.00	0.01	0.01
Total Year	0.01			

Table: TH_SP15_GEN-APND Average RTM Hourly Curtailment Event Forecast

	Quarter			
Hour	**1**	**2**	**3**	**4**
1	0.15	0.36	0.08	0.28
2	0.21	0.62	0.10	0.38
3	0.56	1.05	0.54	0.51
4	0.51	1.31	0.67	0.38
5	0.26	0.95	0.62	0.36
6	0.21	0.76	0.26	0.08
7	0.13	1.10	0.49	0.15
8	0.00	0.62	0.18	0.08
9	0.36	0.95	0.36	0.21
10	0.46	0.88	0.41	0.33
11	0.54	0.74	0.26	0.31
12	0.44	0.48	0.13	0.49
13	0.41	0.40	0.05	0.28
14	0.62	0.43	0.03	0.28
15	0.64	0.64	0.03	0.21
16	0.62	0.60	0.03	0.10
17	0.41	0.48	0.03	0.03
18	0.10	0.31	0.03	0.05
19	0.05	0.10	0.00	0.03
20	0.03	0.07	0.00	0.03
21	0.00	0.02	0.03	0.00
22	0.00	0.02	0.03	0.03
23	0.03	0.17	0.00	0.08
24	0.18	0.31	0.03	0.08
Total Quarter	0.29	0.56	0.18	0.20
Total Year	1.22			

After examining the historical CAISO curtailment data, its risk analysis, and the analysis of negative pricing and curtailments, the City remains confident that the 2% minimum margin of procurement that it has institute provides the correct balance between risk management and excessive costs. The City will continue to monitor trends in the energy market, especially the curtailment levels of renewable resources, and if necessary, will adjust the minimum margin of procurement. Furthermore, the City has minimal exposure to delivery shortfalls related to project failure or delays due to the fact that its projects are already online.

Following contract execution, CalChoice will ensure that RMEA remains closely coordinated with RPS suppliers, particularly developers of any new-build resource, to maintain

an acute awareness of project development progress, including any anticipated issues that could delay expected initial deliveries or compromise overall project viability. Such communications are intended to provide the City with an early indication of such issues, which would allow "corrective procurement actions" to occur if the extent of such issues were determined to impact the City's RPS compliance status.

While other CCA programs may choose to pursue larger planning reserves, the City observes that there does not seem to be a clear standard or related guidelines for setting such metrics. As such, the City has considered core objectives of its CCA program when establishing this metric, including compliance with pertinent regulatory mandates, specifically California's RPS Program, as well as, and very importantly, rate competitiveness. The 2% planning reserve, which is applied annually based on the City's projected retail sales, creates an effective margin of over-procurement equivalent to 5.2% in 2022 (relative to the prevailing interim annual RPS procurement target in that year, as previously mentioned in Section II), transitioning to 3.3% in 2030 (relative to the 60% annual procurement target).

When considering the perceived sufficiency of the City's current planning reserve, it is also important to acknowledge the potential impacts on future retail sales imposed by the pandemic. Based on information provided by CalChoice and other CCA programs throughout the state, the City understands that there have been significant load reductions caused by current economic conditions. For renewable energy planning purposes, the City has yet to adapt its retail sales forecast to reflect such changes. Recent significant increases in inflation, and increases in interest rates to combat such inflation, are expected to slow the growth of the economy over the next few years. To the extent that that occurs and retail sales fall below expectations during CCA operations, the City is expected to accrue actual renewable energy volumes in excess of its planning targets (including reserves) and may have a margin of over-procurement that is meaningfully higher than the noted 2% (of retail

sales). Electric load within the City will be monitored over time to determine if related planning and procurement adjustments may be needed to protect the City from higher-than-anticipated renewable energy costs and related impacts to customer rates.

RMEA is aware that Section 399.13(a)(6)(A), and the ACR, note that generation variability and resource availability may impact the amount of future electricity delivered. As previously discussed, RMEA considers this potential risk during its planning process as well as during related procurement activities. The City may continue to pursue contract structures that promote volumetric stability through the application of firm delivery quantities and/or performance guarantees that provide financial remedies/penalties in the event of delivery shortfalls. If necessary, the application of such penalties could be used to: 1) as a first priority, procure additional renewable energy supply to address delivery shortfalls; or 2) in the event of a determination of non-compliance, offset the cost of related penalties. The City's intent is to achieve and maintain compliance with applicable RPS mandates, and the latter option is a last resort that is not expected to apply.

Furthermore, the City is aware of the need to perform a risk assessment in this RPS Procurement Plan and, as previously described, presents the results of such an initial assessment. At this time, and as previously noted, RMEA observes a risk management/assessment process that focuses on the identification and selection of highly experienced, financially viable renewable energy sellers, a process which is believed to materially reduce the risk of delivery shortfalls and potential compliance deficits.

RMEA continues to explore the use of quantitative tools to further understand these risks, as evidenced by the risk assessment included above. In the future, RMEA's risk management/assessment process will inevitably continue to evolve in consideration of its unique

renewable energy needs, market conditions, availability of requisite supply and ongoing track record in meeting California's RPS compliance mandates. For example, if RMEA believes that its understanding of responses to a future solicitation would improve through the use of a quantitative risk assessment tool, RMEA will accordingly pursue the use of such a tool. However, if the City and CalChoice believe that the current supplier selection process, which is intended to minimize/eliminate renewable energy delivery risk before contract execution occurs, results in the identification of: 1) low-risk supply sources that are already operational; or 2) highly experienced, financially viable project developers that have consistently demonstrated a successful development track record over time, then it may choose to forgo a related quantitative assessment as part of its risk management/assessment process. To the extent that noteworthy changes are made to such process, RMEA will describe them in a subsequent RPS Procurement Plan, if required to do so.

Because of its relatively small size, it is likely that RMEA will engage in a relatively small number of long-term renewable energy supply agreements, so a meaningful delivery shortfall (relative to expectations) or project development failure amongst such contracts would seemingly result in compliance-related deficiencies for the City (related to its long-term contracting obligation) – RMEA is aware of the financial consequences associated with such deficiencies but believes that the previously described evaluation process for prospective suppliers as well as planned procurement activities will ensure its success in meeting applicable compliance mandates. Similar issues seem less relevant with regard to short-term renewable energy purchases, as the market continues to remain robust for CCA buyers and related supply seems readily available. As previously noted, RMEA believes that a keen focus on identifying highly experienced, financially viable long-term renewable energy suppliers is the best risk

mitigation strategy for this important element of the RPS Program, and RMEA intends to observe this practice.

System Reliability

With respect to system reliability, the City is aware of the need to pursue a portfolio of renewable resources with diverse and complementary delivery profiles as well as complimentary infrastructure (namely, energy storage infrastructure) that will support the reshaping of renewable energy deliveries to better align with load. For example, renewable energy procurement efforts that may initially focus on relatively low-cost solar resources will often necessitate subsequent investments in co-located energy storage infrastructure and/or higher-cost baseload renewable generating technologies, such as those using geothermal, biomass and landfill gas fuel sources. These baseload renewable technologies are often priced at three-to-four times the level of in-state photovoltaic solar generation but generally provide increased capacity value (due to the more predictable, baseload generating profiles of such resources) and related reliability enhancements. By ensuring a better match of energy and load, as well as procuring resources more capable of providing ancillary services than intermittent renewable resources alone, the City seeks to mitigate potential negative system impacts such as rolling outages or violations of current standards for ancillary services. Certain of the resources that may be procured to satisfy recent capacity mandates are also expected to support grid reliability and may include baseload renewable energy resources, renewable energy plus storage configurations or stand-alone battery storage configurations, all of which would be expected to improve grid reliability by some measure. Over time, the City will balance the often competing interests of cost and reliability to support reasonably close alignment between supply and demand (reducing the need for pronounced resource ramping on the system), cost-effective procurement and

overall grid reliability. The City is aware that low-cost, long-term solutions are challenging to identify but will remain committed to pursuing a conscientious planning process that balances grid reliability, compliance demonstration and customer cost impacts.

The City is willing to engage in discussions with SCE and the California Independent System Operator regarding reliability and other system impacts related to its portfolio. The City is further willing to consider the feedback provided by these organizations in its planning and procurement processes going forward, so long as such suggestions generally conform with organizational objectives and Council-adopted policies. *In consideration of the City's increasingly diverse contractual commitments for requisite renewable energy supply and the organization's intent to focus on the identification of RPS-eligible and complementary technologies that will mitigate reliability impacts associated with increased use of intermittent generating resources throughout the state, overall risks to system reliability associated with the City's RPS Procurement Plan were determined to be low.*

Lessons Learned

In terms of lessons learned related to risk management, the City observes that internally adopted, above-RPS planning targets generally serve as effective mitigation measures related to RPS compliance. While setting lofty RPS targets is not a viable or desirable option for all retail sellers, the City will continue to evaluate the sufficiency of its adopted planning reserve (MMoP) to reduce the risk of RPS compliance shortfalls. If existing supply commitments happen to underperform or future RPS contracting activities impose larger than anticipated risks (such as project failure, commercial operation delays and/or under-delivery), the City may increase its noted planning reserve to provide additional protection against such risks. The extent to which such adjustments may occur is not known at this time but will be discussed, as necessary, in a

future RPS Procurement Plan.

The City has also observed the value of resource diversity across a broad spectrum of considerations, including resource location, generating technology, suppliers/developers and contract structures, amongst other concerns. Long-term renewable supply commitments are inherently risky in the sense that such commitments expose the buyer and/or seller to a variety of unknown circumstances, including but not limited to evolving market prices and policy changes. Throughout a long-term contract relationship, it seems evident that geographic areas with initially low levels of negative pricing (and related curtailment of energy production) can materially change as new project development activity occurs, creating (or exacerbating) conditions of over-supply and related incidents of energy curtailment. This risk is particularly challenging to manage, as California's escalating RPS procurement mandates necessitate ongoing investment in new renewable generating infrastructure, which is often sited in resource-rich areas that become oversaturated with similar generating technologies (and related delivery profiles). These circumstances seem inevitable and, over the course of a long-term supply relationship, may expose the contracted parties to unexpected risks, including negative prices (and related budgetary impacts) and curtailed deliveries (which may compromise the fulfillment of mandated procurement targets by the buyer). The City will reevaluate its current renewable energy planning reserve to address anticipated curtailment and/or underperformance risk associated with specific projects placed under contract.

The City is also aware that risk can be diversified through various contract structures. For example, an "index-plus" pricing structure is useful in transferring nodal/market price risk to the seller – in such structures, the buyer pays a fixed renewable premium, while the seller assumes risk associated with market price fluctuations but also receives market revenues (which

could be higher or lower than anticipated) – even though the buyer receives the energy, renewable attribute and (in certain instances) capacity value as part of such a transaction, the buyer's financial risk is generally limited to the payment of the renewable premium. For buyers who are averse to market price risk, the index-plus pricing structure effectively eliminates this concern but may result in higher overall contract costs (which may be acceptable, as a form of insurance, to mitigate market price exposure). In other structures, such as the "fixed-price" or "aggregate pricing" structure, the renewable energy premium and energy commodity (and oftentimes, capacity value) are reflected in a single price paid by the buyer – this structure deliberately allocates market price risk to the buyer, but the buyer may also pay a lower imputed renewable premium in instances where market revenues (realized when the energy commodity is delivered to the grid) closely approximate (or exceed) the aggregate renewable energy price. In evaluating potential contract structures, decisions can be made in consideration of risk allocation preferences, and the City has pursued (and will continue to pursue) contracting structures that balance such risks over time. To date, the City has pursued both structures and will continue to do so in the future.

VIII. Renewable Net Short Calculation

RMEA has provided an updated quantitative assessment, which is attached hereto as Appendix C, to support the qualitative descriptions provided in this RPS Procurement Plan. At this point in time and based on RMEA's historical supplier performance as well as anticipated renewable energy contracting outcomes, a conservative two percent risk adjustment, also referred to as the MMoP, has been incorporated in the quantitative assessment for "Online Generation" – this adjustment was informed by CalChoice's research regarding historical curtailments for wind and solar resources in the CAISO, as well as the risk analysis presented in

Section VII.; a risk adjustment of two percent has been incorporated for RPS Facilities in Development, but the City observes that there are no supply commitments in place with facilities that have yet to achieve commercial operation at this point in time . If actual output happens to differ from the City's expectations, it will incorporate a larger risk adjustment in a subsequent iteration of this RPS planning process. Additional adjustments will be incorporated in future quantitative assessments based on the unique characteristics of related supply agreements secured by the City. This update to the City's RPS Procurement Plan includes a revised RNS template that reflects the City's acceptance of certain long-term RPS allocations made available through the VAMO process.

IX. Minimum Margin of Procurement (MMoP)

The City is developing an electricity supply portfolio that will further the achievement of state mandates. The following table displays the City's intended margin of RPS over-procurement based on the differential between the SB 100 procurement targets and the City's internally adopted RPS procurement targets – this differential is defined as the City's voluntary margin of over-procurement, or VMoP. It is readily apparent that the City has decided to forgo voluntary incremental purchases of RPS-eligible renewable energy, which is reflective of the prevailing priorities of the City's customer base and leadership: these priorities place an emphasis on rate competitiveness and local control, rather than heightened levels of RPS procurement. This decision should not be construed as a reflection of the City's commitment to fulfilling statewide RPS mandates. As further described below, the City has incorporated an RPS planning reserve, described as its minimum margin of procurement, or MMoP, to do just that.

State & Internally Adopted Renewable Energy Requirements

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SB 100 RPS Procurement Requirement (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Internally Adopted RPS Procurement Target (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Voluntary Margin of Procurement (% of Retail Sales)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

As previously noted, the City's core goals and objectives emphasize the important of rate competitiveness and, therefore, the organization has adopted prudent RPS planning reserves without a VMoP. To address RPS compliance risk, the City uses its risk assessments, including its renewable net short calculations and curtailment analysis, to establish a Minimum Margin of Procurement to guide RPS compliance procurement planning. The City calculated the minimum margin of procurement, or MMoP, using a 2% risk adjustment (or planning reserve) that was applied to the City's annual retail sales estimates in each year of the planning period. Based on the manner in which the City has established its MMoP, as a 2% planning risk adjustment relative to statewide RPS mandates, the effective MMoP percentages observed by the City range from 3.3% to 5.2%, relative to the City's projected RPS compliance need, over the ten-year planning horizon. The following chart provides additional detail regarding the effective MMoP percentages observed by the City.

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SB 100 RPS Procurement Requirement (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Internally Adopted RPS Procurement Target (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Margin of Procurement (% of Retail Sales)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RMEA's Minimum Margin of Procurement (% buffer relative to RPS Mandate)	5.6%	5.2%	4.8%	4.5%	4.3%	4.1%	3.8%	3.7%	3.5%	3.3%	3.3%	3.3%

The City's MMoP is intended to address potential delivery variability for intermittent resources, curtailment risk, project delays and other operational peculiarities that may cause actual renewable energy deliveries to deviate from projections. Note that certain of the City's

renewable energy deliveries are not subject to variability – such agreements reflect minimum fixed delivery quantities (or quantities with limited volumetric variability) with corresponding financial penalties (paid to the City by related sellers in the event of delivery shortfalls).

Presently, the renewable energy procurement targets reflected in the City's planning process reflect moderate, but prudent, planning reserves to allow for certain demand- and supply-side variability that could impact RPS compliance achievement. The targets reflected within this RPS Procurement Plan reflect state mandated RPS procurement targets as well as the previously described two percent planning reserve. Staff assumes that future renewable procurement targets (inclusive of planning reserves necessary to meet RPS mandates) will consider a variety of factors, including but not limited to, the operational status of prospective renewable energy facilities to be placed under contract, the experience and general development track record of each project development team (associated with new resources), resource size (capacity), the location of prospective generating resources (for new facilities) and impacts of over-procurement to the CCA program's procurement budget and customer rates. Such considerations, amongst others, will be evaluated by the City in determining whether the proposed two percent margin of over-procurement should be adjusted in the future. To the extent the City anticipates planning risk related to its renewable energy contract commitments, it will likely adjust its margin of over procurement accordingly.

IX.A. MMoP Methodology and Inputs

The City's MMoP is intended to address an RPS failure rate at or above that which is reflected in the renewable net short reporting template. In the event of contract under-deliveries, commercial operation delays and/or project failures, the MMoP should be sufficient to ensure the City is compliant with the RPS procurement requirements. As shown in Section VII above,

the City's MMoP of 2% exceeds the historical level of curtailments in the CAISO grid (shown as under 0.1% for wind and under 0.7% for solar), and also exceeds the City's risk assessment of RPS contracts (shown as 0.62% of retail load). The City's VMoP is the annual RPS-eligible minimum portfolio content identified in the City's internally adopted planning targets, which is currently equivalent to California's statewide RPS mandate.

As discussed in Section VIII, the City has incorporated risk adjustments to certain renewable energy delivery estimates associated with existing generating facilities. Achieving the City's MMoP necessitates higher levels of renewable energy procurement (ranging from 3.3% to 5.6% over the City's annual RPS compliance needs throughout the ten-year planning period), which accommodate the potential for delivery shortfalls (due to a variety of circumstances) while still allowing the City to meet prescribed RPS mandates.

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SB 100 RPS Procurement Requirement (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Minimum Internally Adopted RPS Procurement Target (% of Retail Sales)	35.8%	38.5%	41.3%	44.0%	46.7%	49.3%	52.0%	54.7%	57.3%	60.0%	60.0%	60.0%
RMEA's Voluntary Margin of Procurement (% of Retail Sales, based on difference between SB 100 mandate and RMEA's internally adopted RPS target)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
RMEA's Minimum Margin of Procurement (% of Retail Sales)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RMEA's Minimum Margin of Procurement (% buffer relative to RPS mandate)	5.6%	5.2%	4.8%	4.5%	4.3%	4.1%	3.8%	3.7%	3.5%	3.3%	3.3%	3.3%
RMEA's Aggregate Planning Reserve: MMoP + VMoP (% buffer relative to RPS mandate)	5.6%	5.2%	4.8%	4.5%	4.3%	4.1%	3.8%	3.7%	3.5%	3.3%	3.3%	3.3%

The City will effectively ensure its compliance with applicable RPS mandates by procuring in consideration of applicable RPS mandates, plus the City's adopted MMoP. The City offers participating customers a portfolio comprised of renewable energy products which minimally meet statewide RPS procurement mandates (approximately 38.5% in 2022). Staff understands that the City Council may periodically consider changes to the level of renewable energy included within the City's default retail service offering but also understands that such

content would not fall below statutory RPS mandates. If the City Council considers and adopts changes to its internal renewable energy procurement targets, the organization will accordingly update future RPS planning documents to reflect such changes.

Presently, the renewable energy procurement policy that has been adopted by the City Council specifies a renewable energy target that mirrors similar targets reflected in California's RPS Program, plus the previously described 2% planning reserve. As such, the City plans to gradually increase its procurement of RPS-eligible renewable energy over time, inclusive of the aforementioned planning reserve, which is intended to mitigate risks associated with under delivery and/or failed (or delayed) project development.

IX.B. MMoP Scenarios

The City plans to meet the annual program renewable goals reflected in the table presented in Section IX (above), including the MMoPs reflected therein. As reflected in this table, the City's anticipated MMoP percentages range from 3.3% to 5.6% across the 10-year planning period (relative to the prevailing interim annual RPS procurement mandate). During its bid evaluation and supplier selection processes, the City considers a variety of risks and believes that such risks are sufficiently addressed within its MMoP calculation – in consideration of the City's considerable reliance on fixed-volume renewable supply commitments, it has no reason to doubt the sufficiency of the MMoP reflected in its internally adopted RPS planning targets. This noted, if the City's resource planning and contract management processes happen to identify substantive concerns with the limited new-build renewable projects included/to be included in its supply portfolio, delivery shortfalls or other issues potentially impacting the proportionate level of renewable energy reflected in its aggregate supply portfolio, the City will engage in expedited procurement processes to address such shortfalls (as a near-term solution) and also reevaluate the sufficiency of its MMoP (as a longer-term solution). As demand- and supply-side data are

monitored in each year, the City may adjust planned short-term purchases and/or pursue surplus sales arrangements if actual renewable energy deliveries are tracking above its anticipated needs. By the end of each calendar year, the City hopes to manage the level of its internal planning reserve so that actual renewable energy deliveries are closely aligned with California's RPS Procurement Target.

The City will also model demand-side sensitivities that may impact MMoP calculations. In addition to load variability resulting from ongoing (minor) fluctuations in customer participation, the City will also monitor electric vehicle penetration rates, net energy metering participation rates and other considerations that may impact overall customer energy requirements and related MMoP calculations

X. Bid Solicitation Protocol

X.A. Solicitation Protocols for Renewables Sales

RMEA does not have immediate plans to issue a solicitation for sales of renewable energy products. If such a need arises in the future, however, the City will consider a protocol that: 1) ensures the City remains compliant with applicable RPS procurement mandates; 2) minimizes overall portfolio costs to the greatest extent practical; and 3) provides sufficient flexibility to accommodate reasonably anticipated supply-side and demand-side changes that could impact the City's overall renewable energy requirements.

X.B. Bid Selection Protocols

Consistent with Section 399.13(a)(6)(C), CalChoice, on behalf of RMEA, shall conduct solicitations for requisite energy resources, including specific needs for eligible renewable energy products (reflecting locational preferences, when applicable, for such resources), generating capacity, and required online dates to assist in determining what resources fit best

within the City's supply portfolio. CalChoice provides necessary analytical support and advisory services to RMEA during such processes. Since CCA program governing boards are comprised of local elected officials, these solicitations and, in particular, related procurement decisions are overseen by elected representatives of the community with guidance provided by CalChoice. Such solicitations and procurement decisions will seek to comply with locally-set targets that tend to exceed applicable RPS mandates and provide value to the community by supporting increased use of renewable energy resources. Any long-term renewable energy supply agreements resulting from RMEA's participation in CalChoice-administered solicitation processes will be brought to the City's Governing Council for approval prior to execution.

Through its relationship with CalChoice, the City is actively engaged in developing solicitation protocols for requisite renewable energy supply and has incorporated a variety of considerations in related bid requirements. Pursuant to Public Utilities Code 399.13(a)(6)(C)[3] and discussions with CalChoice, these considerations, which will be focused on solicitation protocols, bid evaluation and supplier selection, include:

1. Overall quality of response, inclusive of completeness, timeliness, and conformity;
2. Price and relative value within the City's supply portfolio;
3. Project location and local benefits;
4. Project development status, including but not limited to progress toward interconnection, deliverability, siting, zoning, permitting, and financing requirements;
5. Qualifications, experience, financial stability, and structure of the prospective project team (including its ownership);
6. Environmental impacts and related mitigation requirements, including impacts to air pollution within communities that have been disproportionately impacted by the existing generating fleet;
7. Potential impacts to grid reliability;

[3] Cal. Pub. Util. Code § 399.13(a)(6)(C) ("Consistent with the goal of increasing California's reliance on eligible renewable energy resources, the renewable energy procurement plan shall include all of the following: A bid solicitation setting forth the need for eligible renewable energy resources of each deliverability characteristic, required online dates, and locational preferences, if any.").

8. Potential economic benefits created within communities with high levels of poverty and unemployment;
9. Acceptance of the City's standard contract terms; and
10. Development milestone schedule, if applicable.

When evaluating future long-term renewable purchase opportunities, the City will also consider "the employment growth associated with the construction and operation of eligible renewable energy resources." More specifically, to the extent the City procures new RPS resources in solicitations where qualitative factors are considered, it will include a qualitative assessment of the extent to which proposed project development activities will support this goal. Such determinations will be based on information provided by the prospective supplier and the City's independent assessment of such information. When the City procures RPS resources, it will require bidders to submit information on projected California employment growth during construction and operation. This data will include the expected number of hires, duration of hire, and an indication of whether the bidder has entered into Project Labor Agreements or Maintenance Labor Agreements in California for the proposed project.

Pursuant to Public Utilities Code 399.13(a)(8)(A), the City will also consider the inclusion of evaluative preference for "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."[4] To the extent that the City procures RPS resources through solicitations where qualitative factors are considered, impact on disadvantaged communities will be considered.

[4] Cal. Pub. Util. Code § 399.13(a)(8)(A) ("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.").

Such information will be gathered by requiring prospective suppliers to answer the following questions: Is your facility located in a community afflicted with poverty or high unemployment or that suffers from high emission levels? If so, the participant will be encouraged to describe how its proposed facility can provide the following benefits to adjacent communities:

- Projected hires from adjacent community (number and type of jobs);
- Duration of work (during construction and operation phases);
- Projected direct and indirect economic benefits to the local economy (i.e., payroll, taxes, services);
- Emissions reduction – identify existing generation sources by fuel source within 6 miles of proposed facility and indicate whether the proposed facility will replace/supplant the identified generation sources; and
- To the extent that the proposed generating facility is expected to replace/supplant an existing generating facility, the prospective supplier will be asked to quantify the associated emission impacts of this transition.

Certain of these considerations were incorporated during the evaluation of responses submitted through CalChoice's recent solicitation for long-term renewable energy supply; others will be reflected in future solicitations, as appropriate. Based on the success of its ongoing solicitation process(es), RMEA may adapt these considerations.

As described in CalChoice's *Supplier Diversity 2021 Annual Report and 2022 Annual Plan*, the CalChoice members are assessing steps to improve the participation of small, local, and diverse business enterprises, including those owned by women, minorities, disabled veterans, and members of the LGBTQ community ("WMDVLGBTBE"), in CalChoice's renewable

solicitations.[5] The City seeks to achieve this goal while complying with the competing requirements of California Proposition 209. In future RPS Procurement Plans, the City, through CalChoice, will consider revising its solicitation protocols, bid evaluation, and supplier selection consistent with this assessment.

Consistent with the direction in the ACR, RMEA has provided a copy of its most recent solicitation materials to Commission Energy Division staff. RMEA's most recent solicitation information is available at the following website: https://californiachoiceenergyauthority.com/our-services/.

X.C. LCBF Criteria

The Least-Cost Best Fit 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 IOUs and the Commission does not have jurisdiction over the solicitation protocols of CCAs. However, consistent with Section 399.13(a)(9),[6] RMEA considers best-fit attributes to help minimize overall renewable energy procurement costs while generally supporting electric grid reliability.

In particular, the City anticipates considering "least cost best fit" ("LCBF") during the evaluation of responses to its future renewable energy solicitation(s). From the City's perspective, use of the term "costs" should appropriately include considerations beyond the basic price of renewable energy. More specifically, costs should include a broad range of considerations, such as: (1) reputational damage resulting from failure to meet state-mandated and/or internally established renewable energy procurement targets; (2) compliance penalties

[5] *See* CalChoice *Supplier Diversity 2021 Annual Report and 2022 Annual Plan*, March 1, 2022, at 16.
[6] 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.").

resulting from failed project development efforts or delivery shortfalls; (3) administrative complexities related to dealing with inexperienced suppliers (such as prolonged contract negotiation processes and uncertainties related to project milestone timing and achievement); and (4) impacts to planning certainty resulting from higher risk projects. These factors, as well as various others, will be considered by the City as components of its cost evaluation processes, which may lead to the selection of offers that aren't necessarily the lowest cost option(s), as expressed on a dollar-per-MWh basis. With regard to "fit", this aspect of a prospective supply opportunity has as much to do with compatibility (between the City and its suppliers) and alignment with key local objectives as it does with balancing customer usage and expected project deliveries, particularly when considering long-term contracting opportunities that will necessitate a constructive working relationship over a period of ten years or more. The City also interprets the term "fit" to mean the general suitableness of a project opportunity in promoting grid reliability – while the City has no explicit operational or maintenance responsibilities related to the local distribution system serving its customers or the bulk electric system at large, it is aware of the profound importance of supporting grid reliability through its procurement processes. With this in mind, the City will make best efforts to balance the demands of California's rigorous RPS compliance mandates with its interest in promoting such reliability. This is no small task, and the City expects that considerations related to grid reliability will be incorporated at each stage of its planning and procurement processes but also acknowledges that the full scope of its RPS contract/resource portfolio (including related impacts to grid reliability) will significantly evolve throughout the organization's operating history. Over time, the City expects to thoughtfully assemble a diversified portfolio of RPS contracts/resources that will not only contribute to the City's achievement of applicable

compliance mandates but also to improved stability and reliability of California's electric system. As such, the City's LCBF methodology will consider a broad range of components, including those previously noted, balancing a variety of pertinent considerations at the time each renewable purchase opportunity is being evaluated.

Additionally, the requirement of Section 399.13(a)(9) to give preference to renewable projects located in certain communities is expressly only applicable to "electrical corporations" and is not mandatory for CCAs.[7] However, the City recognizes the need to help mitigate the impacts of air pollution in regions of the state where communities have been disproportionately impacted by the existing generating fleet as well as the need to bring economic benefits to communities with high levels of poverty and unemployment. Consistent with this recognition, the City will consider the manner in which air pollution may be impacted during its renewable energy solicitation process(es) and related project selection.

XI. Safety Considerations

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

As the City pursues future renewable energy purchases, it will consider requiring verbiage addressing adherence (of the seller/project operator) to prudent electrical practices and

[7] Cal. Pub. Util. Code § 399.13(a)(7)(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.").

applicable safety requirements, including compliance with laws and regulations relating to safety. During future contracting efforts, the City will perform an assessment of the supplier's willingness to include such provisions as well as any related impacts to pricing/cost – the City is aware that requesting more stringent processes and/or requirements may trigger requested price increases by the seller/supplier. To the extent that product pricing would meaningfully increase due to the inclusion of such provisions, the City would need to evaluate budgetary impacts and other risks before proceeding. The City is hopeful that most suppliers will be agreeable to the inclusion of such provisions and will be diligent in requesting such language in its future contracts. In addition, RMEA has provided additional information below on its existing safety practices.

XI.1. Wildfire Risks and Vegetation Management

In negotiating contracts with renewable generating facilities, RMEA works to ensure that the facility operator complies with all relevant safety requirements associated with the maintenance and operation of the facility. In these agreements, RMEA includes contract provisions that require the counter party to operate and maintain the facility in compliance with all relevant laws and prudent operating practices.

At this point in time, the City has yet to adopt specific procurement policies or preferences focused on the acquisition of forest biomass resources. The City is aware of the mitigating impacts that biomass generators, which use forestry waste as feedstock, may have on wildfire risk and will consider the adoption of a related procurement policy in the future. Furthermore, the City does not believe that any of its contracts with specified renewable generating facilities are located within high fire risk areas. In the future, the City will coordinate with CalChoice when considering project locations that may be located in fire-prone regions as

well as related risk adjustment factors that may be appropriate for such facilities.

In future solicitations, RMEA will identify whether any of the bidding generating facilities are located within Tier 2 or Tier 3 of the Commission's Fire-Threat Map. When evaluating executing a contract with a facility located in Tier 2 or Tier 3, RMEA will consider requiring the seller to demonstrate that it taken adequate precautions associated with the facility's elevated risks, including specific wildfire prevention and safety measures for any construction, operation, and maintenance activities.

XI.2. Decommissioning Facilities

To date, the City has not developed any plans or requirements related to the disposition of generating facilities following completion of applicable delivery terms. RMEA's contracts with renewable generating facilities generally require that the facility operates in compliance with all applicable laws and prudent operating practices. The City assumes this broad terminology generally entails the safe disposition of assets following expiration of their useful life (to the extent that the useful life of such facilities expires at the same time as the noted delivery term involving RMEA). This noted, the duration of RMEA's renewable energy supply commitments is expected to be shorter than the useful life of most, if not all, facilities place under contract, so it will be impractical for RMEA to monitor such activities after its relationship with suppliers has ended.

For future contract negotiations, RMEA will evaluate requiring the seller to provide a project safety plan or a similar type of reporting document, which will include information on procedures for identifying and remediating safety hazards, as well as describing any relevant requirements (such as those associated with the permitting of the facility) for the decommissioning of the facility.

XI.3. Climate Change Adaptation

The City has not adopted procurement policies or preferences relating specifically to climate changes risks. In future solicitations, the City will consider developing additional bid evaluation criteria based on climate change risks factors, including but not limited to risks associated with facilities located in regions that are forecasted to be impacted by higher instances of sea-level rise, flooding, wildfires, and/or elevated temperatures.

XI.4. Impacts During Public Safety Power Shut-off (PSPS) Events

While the City does not have any specific predictions regarding future impacts related to PSPS events, it is likely that a PSPS event impacting the City would marginally reduce retail electric sales for CCA customers and, as a result, would generate a very small increase in the proportionate share of renewable energy supply accruing to the City (if renewable supply agreements continue to perform as expected during such events).

RMEA is considering the need to evaluate the impact of prior PSPS events on its renewable generating facilities (under contract) to quantify the amount of generation that was lost due to the facility being taken offline by a PSPS event. RMEA may also assess the risk of the loss of future generation associated with PSPS events both for facilities already online and for facilities under development. RMEA's preliminary assessment is that the total quantity of any PSPS-related reductions in RPS-eligible generation (associated with the facilities in RMEA's portfolio) is likely minimal and generally offset by the reduction in retail sales (also related to the PSPS event). In light of this, the likelihood of a material impact to the City's renewable energy planning process or related performance metrics is extremely low.

XI.5. Biomass Procurement

While RMEA has no specific biases (for or against) biomass resources, the prospect of procuring such resources will be dependent upon offers received during future solicitation processes. In fact, the City has already entered into a long-term PCC3 supply agreement, which will be sourced from existing biomass facilities located within California – the RPS procurement opportunity was selected in consideration of: 1) product availability and the suitability of such product in the City's overall RPS supply portfolio; 2) cost-effectiveness; and 3) volumetric predictability (due to the anticipated baseload delivery profile associated with biomass generating resources). To date, biomass procurement opportunities have been limited, relative to other available renewable energy procurement opportunities, and have been comparatively costly (often 200%, or more, relative to pricing levels associated with other renewable generating technologies). To the extent that future biomass offers/proposals are competitive (with similar offers received from other resource types) and/or in the event the City adopts policies explicitly supporting the acquisition of biomass energy resources, it will consider further inclusion of biomass energy within its future renewable energy supply portfolio. Biomass procurement opportunities may also be considered as a means to increase resource adequacy capacity under contract.

XII. Consideration of Price Adjustment Mechanisms

In the future, and consistent with SB 350 and SB 100, RMEA will review the prospects of incorporating price adjustments in contracts with online dates more than 24 months after the date of contract execution. As noted in the ACR, such price adjustments could include price indexing to key components or to the Consumer Price Index. To date, incorporating such provisions has been challenging due to the inability of buyers and sellers to reach mutually agreeable terms related

to pricing adjustments.

XIII. Curtailment Frequency, Forecasting, Costs

This Section responds to the questions presented in Section 6.13 of the ACR[8] and describe RMEA's strategies and experience so far in managing RMEA's exposure to negative pricing events, overgeneration, and economic curtailment for RMEA's region and portfolio of renewable resources.

XIII.1. Factors Having the Most Impact on the Projected Increases in Incidences of Overgeneration and Negative Market Price Hours

RMEA continues to learn about California's evolving energy market, including information and considerations related to energy curtailment, potential cost impacts, contracting considerations and other concerns. The following represents RMEA'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 brought online throughout the western United States, the California Independent System Operator's ("CAISO") balancing authority area has experienced an increasing frequency and magnitude of curtailment and negative pricing events. As of the end of 2019, California had over 12,800 MW of solar, 9,400 MW of behind-the-meter solar, and 5,900 MW of wind.[9] 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 64.3% over the past 4 years (May 2018 to May 2022), and in May of 2022 the monthly maximum load served by wind and solar was just under 95%, while

[8] ACR at 33-34.
[9] California Energy Commission, Renewable Energy Tracking Progress, Feb. 2020, at 6, *available at* https://www.energy.ca.gov/sites/default/files/2019-12/renewable_ada.pdf.

the maximum 5-minute amount of all renewables serving load was 103.5%.[10] To address the resulting instances of over-supply, the amount of curtailment of wind and solar in the CAISO has significantly increased each year from 2015 through 2020, totaling 187,000 MWh in 2015, 308,000 MWh in 2016, 379,510 MWh in 2017, 461,043 MWh in 2018, 965,241 MWh in 2019, and 1,586,500 MWh in 2020.[11] For 2021, the total level of wind and solar curtailments was 1,504,803 MWh.[12] Curtailment typically occurs most frequently during the months of March, April, and May when hydroelectric generation is historically at its highest. Curtailment levels and percentages for the CAISO, as well as an analysis of negative prices and forecasted curtailments from those negative prices, were presented above in Section VII.

In the CAISO energy markets, much of the curtailment of renewable resources is achieved through the market process because of renewable energy resources voluntarily submitting bids into the energy markets, which cause them to shut down when market conditions create low energy prices. Because of this structure, the curtailment data provided will also be indicative of when negative prices occur. The City recognizes this connection and thus the analysis above in Section VII as to why curtailments are not expected to increase as they have over the past few years will apply to negative prices in a similar manner to curtailments. This has influenced CalChoice's ten-year negative price forecast, which mirrors the frequency of historical renewable energy curtailments. As explained elsewhere in this document, the City has taken steps through its contracting to reduce its risk exposure to low prices and curtailment of renewable resources.

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[10] CAISO, Monthly Renewables Performance Report, May 2022, *available at* *http://www.caiso.com/Documents/MonthlyRenewablesPerformanceReport-May2022.html*.
[11] CAISO, Managing Oversupply, Wind and Solar Curtailment Totals, updated June 6, 2021, *available at* *http://www.caiso.com/informed/Pages/ManagingOversupply.aspx*.
[12] See Curtailment table in Section VII above.

RMEA will continue to monitor this situation to the extent such circumstances are likely to impact contract administration and/or future procurement activities. If prospective renewable generating opportunities are located in areas that are prone to frequent instances of negative market pricing, RMEA will be sure to evaluate such data to better understand prospective financial impacts and/or pursue contractual pricing structures that will insulate the CCA program from such risks.

XIII.2. Written Description of Quantitative Analysis of Forecast of the Number of Hours Per Year of Negative Market Pricing for the Next 10 Years

Based on RMEA's existing renewable energy supply agreements, the CCA program has yet to incur exposure to negative price risk (related to requisite renewable energy transactions). Historical renewable energy deliveries have been priced on an index-plus basis, capping RMEA's financial exposure to the stated renewable energy premium in such contracts. RMEA recently began taking deliveries under new supply agreements (with 2021 and 2022 delivery start dates), which use both index-plus and fixed pricing structures. These contracts, however, reflect explicit negative pricing protections for the buyer, which cap RMEA's financial exposure at the stated bundled renewable energy cost. To the extent that negative pricing occurs, the sellers, which also serve as the scheduling coordinators under each supply agreement, would be responsible for such costs or could choose to pursue curtailment, if negative pricing was too punitive to justify facility operation. However, these contracts also reflect production guarantees, which would limit prospective curtailment activities based on a guaranteed minimum level of renewable energy production, below which the seller would be subject to payment of financial penalties to RMEA. Based on early-stage deliveries from these contracts, energy curtailments have not resulted in production deviations relative to the City's expectations – typical resource intermittency issues, however, have results in some variations from forecasted

production levels. RMEA has started monitoring nodal pricing levels associated with these contracts (see the analysis of negative prices provided above in section VII) and if negative prices become prevalent, the City will prepare a negative price forecast to assist in its understanding of future production deficits (that possibly occur under such scenarios) – because pricing conditions are prone to sudden and significant changes, the "shelf life" of such a forecast is expected to be very brief and subject to regular updates.

As described above, RMEA has evaluated historical curtailment trends for wind and solar generating technologies located within the CAISO footprint over the past four years and believes such data may be instructive in understanding the energy curtailment risk associated with these generating technologies into the future. CalChoice's ten-year negative price forecast mirrors the frequency of historical renewable energy curtailments. As described above, RMEA has taken this forecast of curtailment and negative pricing into consideration in developing its MMoP.

RMEA is aware that curtailment activities may reduce expected renewable energy deliveries, but based on historical nodal pricing adjacent to the noted wind resources, RMEA expects that curtailment activities will be limited. Moving forward, RMEA will continue to monitor historical prices at such nodes, and if instances of negative pricing become prevalent, it will prepare the noted forecast to better understand the periods of time during which curtailment activities may be more likely to occur (even though such activities would not impose direct financial impacts to RMEA). Any information/projections prepared by RMEA in this regard will be shared in a subsequent RPS Procurement Plan.

XIII.3. Experience, to Date, With Managing Exposure to Negative Market Prices and/or Lessons Learned from Other Retail Sellers in California

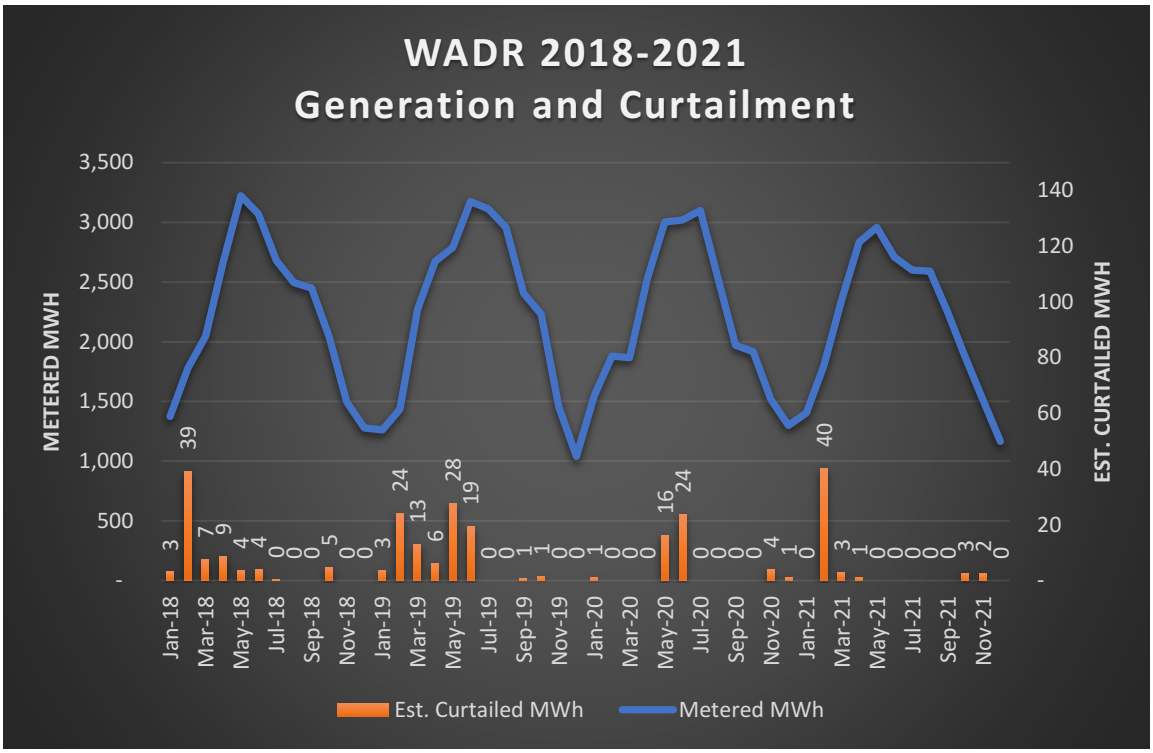
Based on RMEA's existing renewable energy supply agreements, historical renewable energy deliveries have utilized index-plus pricing structures and fixed/firm volumetric

commitments. As such, RMEA has not been previously exposed to negative price risk (related to its renewable supply portfolio) and has not needed to manage exposure to negative market prices. This approach to renewable energy contracting was deliberate, allowing RMEA to build operational experience and knowledge regarding California's energy market before pursuing contract structures that required a deeper understanding of market tendencies, increased data analysis and more intensive coordination with renewable energy suppliers.

Based on its association with CalChoice, which facilitates informational sharing and interagency coordination amongst its members, the CCA program has been made aware of LCE's ongoing experiences managing negative pricing and curtailment risk. LCE has advised CalChoice of the following information regarding its first long-term power purchase agreement with the 10 MW Western Antelope Dry Ranch ("WADR") photovoltaic solar facility, which is located in Lancaster. During its operating history with this renewable generating facility, LCE has experienced instances of negative pricing at certain points in time. Recent data suggests that such instances are more frequent during the Spring season (months of March, April and May) and, consistent with the CCA program's observations regarding curtailment reflected in Section XIII.1, indicates that suppressed pricing generally results from relatively strong solar production throughout the region, coupled with comparatively low energy usage (when moderate seasonal temperatures prevail). To the extent that California experiences strong regional hydroelectric production/imports, negative pricing pressures may be exacerbated.

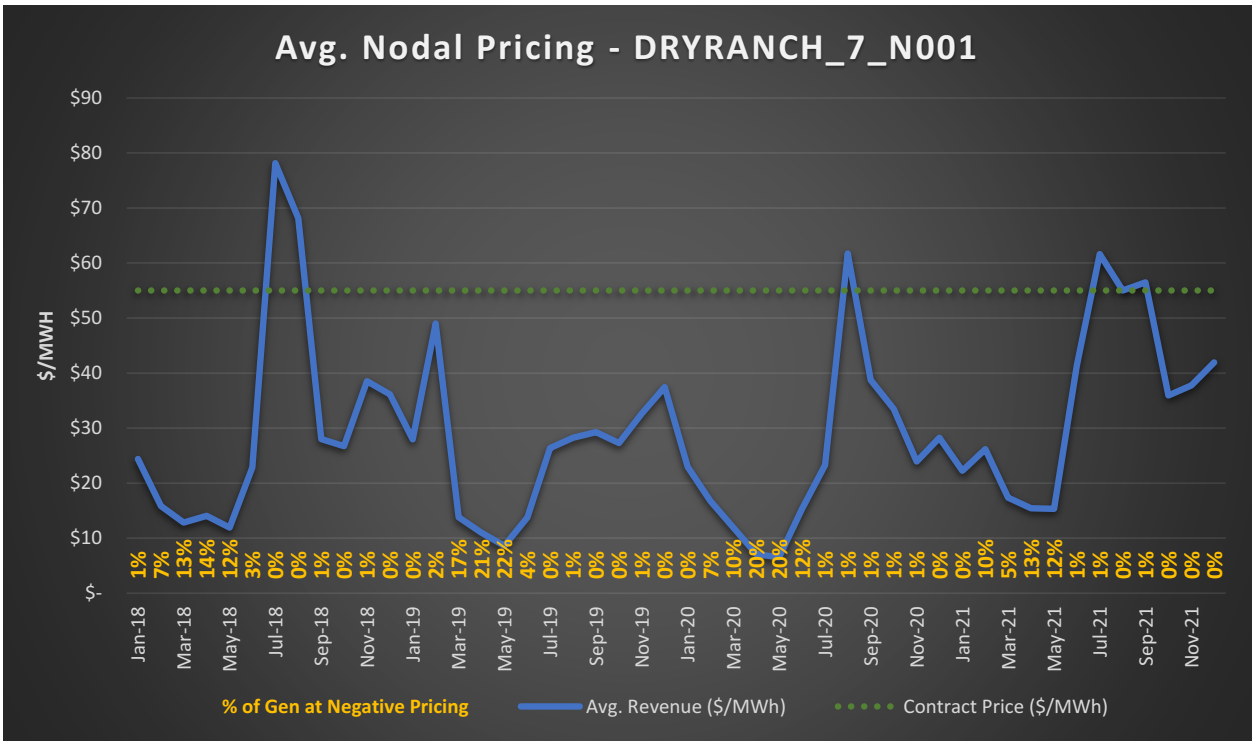
Based on 2018, 2019, 2020, and 2021 historical data, CalChoice observed that negative prices have impacted facility generation during 7% to 22% of solar-producing hours during the months of February, March, and April. Negative pricing in other months is far less prevalent, affecting facility generation on a limited basis (occurring during zero to 10% of hours in which

facility generation has occurred). In terms of curtailment, the CCA program understands that LCE has developed a bidding strategy with its scheduling coordinator that limits exposure to negative pricing based on a pre-determined bid floor (meaning, a pre-determined negative price, below which facility generation would be curtailed), but LCE has only experienced facility curtailments totaling 261 MWh over the aforementioned four-year period, or 0.2% of total potential energy production (which approximates 106,000 MWh during this same four-year period). The impacts of curtailment/negative pricing costs incurred by LCE have been similarly limited. The following chart indicates total monthly generation from the WADR facility during the 2018, 2019, 2020, and 2021 calendar years as well as estimated monthly curtailed MWh (note the differences in scale reflected on each axis).



Adjacent nodal pricing also remains relatively strong, despite substantial solar generation within the region. Average energy pricing at the DRYRANCH_7_N001 node, the basis for

WADR energy settlements, continues to show limited incidents of negative pricing. Over the four-year period reflected in CalChoice's analysis, average revenues collected by LCE for WADR-generated electricity are $28.39/MWh. The following chart reflects average nodal pricing during the 2018, 2019, 2020, and 2021 calendar years as well as the percentage of WADR generation occurring during periods of negative pricing.



Over time, CalChoice will continue monitoring pricing and curtailment data to determine if regional grid conditions are materially changing – four years is a relatively brief period of time for such an analysis, particularly when the composition of resources interconnected to California's bulk electric system continues to undergo significant changes, and while the City finds this information to be helpful, it is also mindful that such changes may substantially alter the trajectory of pricing data at this node. To the extent that negative prices become more severe (meaning, more deeply negative), the CCA program understands that LCE may adapt its bidding

strategy to limit potential financial impacts. Curtailed energy volumes will also be monitored by CalChoice over time, but based on MWh curtailed to date, the CCA program understands that LCE does not foresee any imminent concerns impacting its achievement of compliance with RPS procurement mandates. CalChoice is prepared to support similar data monitoring for other supply opportunities that may be pursued by its membership and will coordinate with such members regarding pertinent bidding strategies, as appropriate.

If the CCA program pursues supply agreements that could expose the organization to negative pricing and curtailment risk, the CCA program would consult with CalChoice to perform pertinent analyses that would be intended to bound prospective exposure (in terms of frequency and potential overall cost) related to negative pricing.

When RMEA pursues future supply agreements that could expose the organization to such risk, and before such procurement opportunities are executed, RMEA would consult with CalChoice to perform pertinent analyses that will be intended to bound prospective exposure (in terms of frequency and potential overall cost) related to negative pricing. Based on information/data derived through such analyses, RMEA would coordinate with CalChoice and its scheduling coordinator to develop a bidding strategy, if deemed necessary, that would create desired limitations to such negative price risk, acknowledging however, that any curtailment decisions (related to negative pricing) would reduce the expected quantity of renewable energy to be received from such contracts – such circumstances could necessitate supplemental procurement, if meaningful delivery shortfalls occur.

As for lessons learned from other retail sellers, RMEA continues to be aware that negative pricing can be particularly punitive in certain geographic regions, so it will need to carefully evaluate any new renewable supply opportunities in consideration of such risk or

pursue contract structures – RMEA is aware that pursuing firm/fixed delivery quantities, as opposed to as-available supply arrangements, can meaningfully reduce, if not entirely eliminate, concerns related to negative pricing (and related decisions to pursue curtailment). If RMEA gains additional insight based on future experience/exposure to negative pricing, it will share such information, if required to do so, in a future RPS Procurement Plan.

XIII.4. Direct Costs Incurred, to Date, for Incidences of Overgeneration and Associated Negative Market Prices

To date, RMEA's renewable energy procurement efforts and associated contracts have not resulted in the accrual of direct costs related to incidences of overgeneration resulting from negative pricing.

XIII.5. An 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 may be 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 the state to meet its environmental and energy policy goals. Additionally, these over-supply situations expose ratepayers to increased costs because their load serving entities must either economically curtail the generating resource (and often pay for the electricity that was not generated) or generate power and be exposed to negative prices. Because these conditions are largely driven by state 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. This includes the

expansion of the Energy Imbalance Market, improvements to the CAISO market design and structure, enhanced forecasting capabilities, time of use rates, improved electric vehicle charging functionalities, and smart deployment of distributed energy resources. The Commission's Integrated Resource Plan ("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.

RMEA will consider the impact of curtailment and negative pricing on its individual portfolio and will factor potential curtailment into its long-term planning, as appropriate. Due to the difficulty in accurately forecasting curtailment, RMEA will review available historical data on curtailment and negative pricing within regions where RMEA may contract for renewable generating resources – RMEA notes, however, that it only recent began taking energy deliveries under a contract that subject its organization to curtailment risk, so RMEA is currently gathering information regarding its early-stage experiences to determine whether additional analysis will be necessary; with RMEA taking additional renewable energy deliveries in 2022 (from more recently executed supply agreements with market-based settlement mechanisms), it will more closely monitor historical market prices in proximity to related generating facilities – if instances of negative pricing become more prevalent at nodes adjacent to active project sites, RMEA may impute risk-related adjustments in its planning assumptions. In future contracting efforts, RMEA will remain aware of curtailment risk (stemming from instances of over-generation and related negative pricing) and will evaluate pertinent data to better understand the potential frequency of curtailment activities, including an assessment of historical pricing related to the point(s) of delivery that will be applicable in such supply agreements. While RMEA has not yet developed an individualized forecast of future curtailment for any particular project opportunity or

technology type, RMEA will factor potential curtailment into its minimum margin of procurement (described in Section IX) and may also factor this consideration in future iterations of its Risk Assessment (Section VII). To the extent that RMEA is engaged in renewable supply agreements which include curtailment provisions, it will take actions to limit the impacts of curtailment on its ratepayers and progress in meeting pertinent compliance mandates. During its current and future renewable contracting efforts, RMEA will continue to pursue contract terms that recognize and limit the potential financial impacts of negative pricing and provide RMEA greater flexibility to direct economic curtailment, if this becomes necessary.

XIII.6. Contract Terms Included in RPS Contracts Intended to Reduce the Likelihood of Curtailment or Protect Against Negative Prices.

As discussed previously, the City has incorporated terms in its contracts to limit consequences from negative prices. These include contracts with fixed quantities of RPS resources, and contracts with penalties for failure to deliver required amounts of RPS energy. An example of such language included in City contracts is:

> **Guaranteed Energy Production**: Seller shall be required to deliver to Buyer no less than the Guaranteed Energy Production (as defined below) in each two (2) Contract Year block (as opposed to rolling) period during the Delivery Term ("**Performance Measurement Period**"). "**Guaranteed Energy Production**" means an amount of Product, as measured in MWh, equal to one-hundred fifty percent (150% of the average Expected Energy (as set forth on the Cover Sheet) for each Performance Measurement Period. The calculation will be performed once each Performance Measurement Period, beginning with the second anniversary of the Delivery Term Start Date.

XIV. Cost Quantification

RMEA has provided an updated Cost Quantification Table as Appendix E, which reflects

renewable energy supply commitments that have been executed since submittal of its Final 2021 RPS Procurement Plan. Pursuant to direction in the ACR, the City has entered pertinent data in Appendix E. Pursuant to the direction in the ACR, RMEA has completed those cells in the Cost Quantification table that correspond to Table 3, Rows 1-5 in the ACR.

The City is aware of misalignments between volumetric totals presented in Appendix C and Appendix E of this planning document. The City understood that it was to include anticipated VAMO elections in Appendix C of its Draft 2022 RPS Procurement Plan. This noted, the City was not aware of similar instructions related to the inclusion or treatment of VAMO volumes within Appendix E, so such volumes were omitted from this element of the plan. The City intends to include VAMO volumes and costs within its Draft 2023 RPS Procurement Plan and would appreciate the Commission providing clarifying direction regarding: 1) the Market Price Benchmark forecast to be used in estimating VAMO costs; and 2) the technology-specific breakout to be used when categorizing VAMO volumes by fuel source – the City has carefully reviewed the volumetric estimates provided by SCE but is also aware that such estimates are subject to change in consideration of actual energy deliveries, which may differ from this forecast. The City could create its own estimate of the generating technology breakout associated with expected VAMO deliveries, but for the benefit of consistency amongst these planning documents, the City would appreciate additional information from the Commission regarding its preferred methodology for determining the technology-specific breakout and related cost estimates to be reflected within Appendix E. The City will continue to update such information in future RPS procurement planning documents when new data points become available.

XV. Coordination with Integrated Resource Planning Proceeding

The resources identified in this RPS Procurement Plan are consistent with the resources identified in RMEA's most recent IRP, which was approved by RMEA's governing board and provided to the Commission for certification on September 1, 2020. As required by the ACR,[13] RMEA includes the following table that describes how RMEA's 2022 RPS Procurement Plan conforms with the determinations made in the IRP Proceedings (R.16-02-007 and R.20-05-003). As required, RMEA will highlight the interrelationships of its RPS and IRP planning processes in a future iteration of this RPS Procurement Plan. The following table reflects RMEA's most recent updates, as reflected in this RPS Procurement Plan, regarding RPS alignment with the IRP process.

IRP Section Subsection	**RPS Alignment in IRP**	
III. Study Results **A. Conforming and Alternative Portfolios**	Retail sellers should explain how the RPS resources they plan to procure, outlined in their RPS Plan, will align with each of their Conforming Portfolios being developed in their IRP Plans for Commission approval and certification. This should include:	
	1. Existing RPS resources that the retail seller owns or contracts. *2. Existing RPS resources that the retail seller plans to contract with in the future.* *3. New RPS resources that the retail seller plans to invest in.* *4. New and existing resources that will be used to meet Mid-Term Reliability obligations*	The City continues to engage in renewable energy contracting efforts and expects to continue participating in/administering such procurement processes, via its relationship with CalChoice, to augment current RPS supply commitments and further progress towards the emission metrics reflected in the City's IRP. As part of its 2020 IRP filing, the City submitted two Preferred Conforming Portfolios that achieve its proportional share of both the 46 and 38 MMT GHG targets. Under each of these portfolios, the City's anticipated use of new and existing resources were added to the portfolio to achieve the relevant GHG targets as well as RPS procurement requirements, including the 65%

[13] ACR at 30-33.

	adopted in D.21-06-035.	long-term contracting requirement. For the 2022 IRP filings, the June 15, 2022 Administrative Law Judge's Ruling Finalizing Load Forecasts and Greenhouse Gas Emissions Benchmarks for 2022 Integrated Resource Plan Filings indicates that the IRP filings should be planning for 2035 as the target year and adopts planning targets of 30 MMT and 25 MMT. These are in addition to the requirements in D.22-02-004 which require LSEs to meet their proportional share of the 2030 target of 38 MMT and plan for a 2030 target of 30 MMT. Description of 2020 Preferred Conforming Portfolios: • 46 MMT Conforming Portfolio: Portfolio that achieves the City's proportional share of a 46 MMT statewide GHG target o The 46 MMT Conforming Portfolio assumed the use of RPS resources currently reflected in the City's supply portfolio, as further described in other submittals to the Commission and this RPS Procurement Plan, as well as the other new RPS resources, which were deemed necessary to achieve pertinent emission parameters associated with the 46 MMT Conforming Portfolio. In aggregate, these new RPS resource would include: 15 MW of new solar; and 13 MW of new wind o Future contracts with the following additional existing RPS resources were also deemed necessary to meet pertinent emission parameters associated with the 46 MMT Conforming Portfolio. In aggregate, these existing RPS resource would include: 1 MW biomass; 5 MW small hydro; and 15 MW wind o The City's 46 MMT portfolio conformed to the procurement timing, resource quantities, and

		general resource attributes identified in the 46 MMT reference system plan • 38 MMT Conforming Portfolio: Portfolio that achieves the City's proportional share of a 38 MMT statewide GHG target o The 38 MMT Conforming Portfolio assumed the use of RPS resources currently reflected in the City's supply portfolio, as further described in other submittals to the Commission and this RPS Procurement Plan, as well as the following new RPS resources, which were deemed necessary to achieve pertinent emission parameters associated with the 38 MMT Conforming Portfolio. In aggregate, these new RPS resource would include: 15 MW of new solar; and 13 MW of new wind o Future contracts with the following additional existing RPS resources were also deemed necessary to meet pertinent emission parameters associated with the 38 MMT Conforming Portfolio. In aggregate, these existing RPS resource would include: 1 MW biomass; 5 MW small hydro; and 15 MW wind o The City's 38 MMT portfolio conformed to the procurement timing, resource quantities, and general resource attributes identified in the 38 MMT reference system plan Description of 2022 Preferred Conforming Portfolios: • 38 MMT in 2030 and 30 MMT in 2035 Conforming Portfolio o This is a continuance of the 38 MMT portfolio from the 2020 IRP. It is anticipated at this time that the

		contracts outlined above will continue to be sufficient • 30 MMT in 2030 and 25 MMT in 2035 Conforming Portfolio: o The City is only beginning to determine how it plans on meeting this new, lower GHG requirement. The City anticipates that the procurement required will be similar to the outlines discussed above to meet the 38 MMT portfolio from the 2020 IRP. Meeting the Mid-Term Reliability obligations from D.21-06-035: • The City is participating in the Joint CalChoice, Desert Community Energy Authority, and Clean Energy Alliance Mid-Term Reliability Request for Proposals. Currently, negotiations are ongoing with short-listed resources.
IV. Action Plan **A. Proposed Activities**	Retail sellers should describe how they propose to use RPS resources to implement both Conforming Portfolios. Narratives should include:	
	1. Proposed RPS procurement activities as required by Commission decision or mandated procurement. *2. Procurement plans, potential barriers, and resource viability for each new RPS resource identified.*	To ensure compliance with its GHG and RPS targets, the City plans to substantially rely on GHG-free and RPS-eligible resources while contributing to statewide reliability requirements and responsibly managing overall portfolio costs. This approach is generally consistent between the 46 MMT Conforming Portfolio and 38 MMT Conforming Portfolio in the 2020 IRP Plan, as well as the 30 MMT and 25 MMT portfolios required to be included in the 2022 IRP Plan. The City's compliance with the IRP incremental procurement obligation required by D.19-11-016 will be met through existing contracts, as further detailed in the City's IRP. The contracted set of resources totals 6.2 MW, which exceeds the City's 4.8 MW incremental capacity requirement, and certain portions are already online with the required balance of such incremental capacity expected to be online by the noted August 1st deadlines in 2021, 2022 and 2023.

		As discussed above, the City's compliance with the Mid-term Reliability decision required procurement is on-going. The City's total requirements from the decision are 18 MW, including 1.5 MW of Long Lead Time resources, and 4 MW of zero-emitting capacity by 2025. The City expects that additional renewable energy resources will be needed to align actual and IRP-related procurement and fulfill general RPS procurement obligations of the City, including requisite long-term RPS contracting requirements. The City will participate in additional RPS solicitation activities, as administered by CalChoice, to address the balance of its RPS and IRP-related resource needs. Such solicitations are ongoing and will occur as-needed, based on the City's evolving open positions. The City will keep the Commission apprised regarding such procurement activities and will update future RPS and IRP planning documents in consideration of related resource acquisitions. In consideration of the City's relatively small sales volume and related resource needs, there are no eminent barriers or concerns regarding resource viability that are expected to compromise the City's achievement of RPS or emission-related compliance obligations.
IV. Action Plan **B. Procurement Activities**	The retail seller should describe the solicitation strategies for the RPS resources that will be included in both Conforming Portfolios. This description should include:	
	1. The type of solicitation. *2. The timeline for each solicitation.* *3. Desired online dates.* *4. Other relevant procurement planning information, such as solicitation goals and objectives.*	The City may participate in distinct solicitations for different products (for example: specific renewable energy products, generating resources or storage infrastructure), or it may choose to solicit multiple products in the same solicitation. These solicitations will be competitive and may be similar to the City's previous long-term RPS solicitations, which were described elsewhere in this RPS Procurement Plan. The City will administer future solicitations, as necessary, to promote consistency with the resource development plan identified in the IRP (for purposes of promoting achievement with state

		mandated RPS targets as well as the City's internal targets). As noted above, the City anticipates administering upcoming solicitation activities consistent with the process and timeline described above. The City is currently in the process of procuring resources that will meet the Mid-Term Reliability needs, with an additional goal of procuring additional RPS-eligible renewable energy that will further achievement of RPS compliance mandates, including applicable long-term contracting requirements During administration of future procurement processes, the City will utilize the evaluative and contract management processes (further described above in Section X and elsewhere in this Plan) to promote timely project completion and improve planning certainty.
IV. Action Plan **C. Potential Barriers**	Retail sellers should provide a summary of the potential barriers to implementing both Conforming Portfolios as they relate to RPS resources. The section should include:	
	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. *2. Key risks associated with the potential retirement of existing RPS resources on which the retail seller intends to rely in the future.*	The City does not expect any procurement barriers to impede its future contracting for new or existing renewable energy resources, but notes that even though a balanced, diverse RPS portfolio is desirable, the limited resource availability and lead time required for some technology types may necessitate planning flexibility. The key risk affecting the City's achievement of the 46 MMT and 38 MMT Preferred Conforming IRP Portfolios in the 2020 IRP Plan and the 30 MMT and 25 MMT portfolios in the 2022 plan is reliance on new resources – while the City intends to contract with highly experienced and qualified project developers (when new-build resources are deemed necessary), there is always a limited risk of project failure. In consideration of the City's growing renewable energy commitments and the relatively manageable level of incremental RPS procurement that would be required to meet parameters of the Preferred Conforming IRP Portfolios, it does not have any substantive concerns regarding its ability to fulfill achieve levels of renewable energy procurement that will be required to satisfy

		pertinent RPS mandates or IRP targets. If the City's impression happens to change over time, it will accordingly advise the Commission in a subsequent update to this RPS planning process.

Dated: January 17, 2023~~August 15, 2022~~

Respectfully submitted,

/s/ Isaiah Hagerman

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Appendix B

2022 RPS Procurement Plan Checklist and Verification

Final 2022 RPS Procurement Plan Checklist- Task Completed

Retail seller name: City of Rancho Mirage	**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. Portfolio Supply and Demand	YES	
IV.A.1. Voluntary Allocation and Market Offer (VAMO)	YES	
IV.A.2. Portfolio Optimization	YES	
IV.B. Responsive to Policies, Regulations, and Statutes	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 Renewables 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 Final 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 January 17, 2023 at Rancho Mirage, California.

/s/ Isaiah Hagerman

Isaiah Hagerman
City Manager
City of Rancho Mirage
69-825 Highway 111
Rancho Mirage, CA 92270
(760) 324-4511
isaiahh@RanchoMirageCA.gov

Appendix C

Renewable Net Short Calculation

Renewable Net Short Calculations - 2020 RPS Procurement Plans

LSE Name:	RMEA
Date Filed:	1/17/23

Input required | No input required | Hard-coded

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
		Forecast Year					CP 3		1	2	3	CP 4	4	5	6
		Annual RPS Requirement													
A		**Total Retail Sales (MWh)**		206,500	273,405	279,664	759,570	276,518	282,306	283,717	285,136	1,127,677	286,562	287,994	289,434
B		RPS Procurement Quantity Requirement (%)	27.0%	29.0%	31.0%	33.0%	31.2%	35.8%	38.5%	41.3%	44.0%	39.9%	46.7%	49.3%	52.0%
C	A*B	**Gross RPS Procurement Quantity Requirement (MWh)**	-	59,885	84,756	92,289	236,930.0	98,855	108,688	117,033	125,460	450,035.9	133,738	142,068	150,506
D		Voluntary Margin of Over-procurement (MWh)		12,390	10,936	5,593	28,920					-			
E	C+D	**Net RPS Procurement Need (MWh)**	-	72,275	95,692	97,883	265,850	98,855	108,688	117,033	125,460	450,036	133,738	142,068	150,506
		RPS-Eligible Procurement													
Fa		**Risk-Adjusted RECs from Online Generation (MWh)**		74,788	119,500	90,000	284,288	111,221	115,305	140,858	135,956	503,340	133,621	133,372	132,891
Faa		Forecast Failure Rate for Online Generation (%)					*#DIV/0!*		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Fb		**Risk-Adjusted RECs from RPS Facilities in Development (MWh)**					-					-			
Fbb		Forecast Failure Rate for RPS Facilities in Development (%)					*#DIV/0!*					*#DIV/0!*			
Fc		**Pre-Approved Generic RECs (MWh)**					-					-			
Fd		**Executed REC Sales (MWh)**					-					-			
F	Fa+Fb+Fc-Fd	**Total RPS Eligible Procurement (MWh)**	-	74,788	119,500	90,000	284,288	111,221	115,305	140,858	135,956	503,340	133,621	133,372	132,891
F0		Category 0 RECs					-			11,412	11,386	22,798	11,321	11,277	11,207
F1		Category 1 RECs		42,788	78,500	75,000	196,288	76,872	82,425	96,566	106,690	362,553	104,421	104,215	103,805
F2		Category 2 RECs		8,000	20,000	15,000	43,000	16,668	15,000	15,000		46,668			
F3		Category 3 RECs		24,000	21,000	-	45,000	17,681	17,880	17,880	17,880	71,321	17,880	17,880	17,880
		Gross RPS Position (Physical Net Short)													
Ga	F-E	**Annual Gross RPS Position (MWh)**	-	2,513	23,808	(7,883)	18,438	12,366	6,617	23,825	10,496	53,304	(117)	(8,696)	(17,615)
Gb	F/A	Annual Gross RPS Position (%)	0%	36%	44%	32%	37%	40%	41%	50%	48%	45%	47%	46%	46%
		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)		9,788	101,500	90,000	201,288	38,000	27,000	15,000		80,000			
		Net RPS Position (Optimized Net Short)													
La	Ga+Ia-Ib-Hc	**Annual Net RPS Position after Bank Optimization (MWh)**	-	2,513	23,808	(7,883)	18,438	12,366	6,617	23,825	10,496	53,304	(117)	(8,696)	(17,615)
Lb	(F+Ia-Ib-Hc)/A	Annual Net RPS Position after Bank Optimization (%)	#DIV/0!	0.362168754	0.437079844	0.32181435	0.374274824	0.402220183	0.408440164	0.496473737	0.476810439	0.446351324	0.466291766	0.463105394	0.459141146

Note: All values are to be input in MWhs

Renewable Net Short Calculations - 2020 RPS Procurement Plans

LSE Name:	RMEA
Date Filed:	1/17/23

Variable	Calculation	Item	2025-2027	2028 Forecast	2029 Forecast	2030 Forecast	2028-2030	2031 Forecast	2032 Forecast
		Forecast Year	CP 5	7	8	9	CP 6	10	11
		Annual RPS Requirement							
A		**Total Retail Sales (MWh)**	863,990	290,881	292,336	293,798	877,015	295,267	296,743
B		RPS Procurement Quantity Requirement (%)	49.3%	54.7%	57.3%	60.0%	57.3%	60.0%	60.0%
C	A*B	**Gross RPS Procurement Quantity Requirement (MWh)**	426,311.7	159,025	167,596	176,279	502,899.6	177,160	178,046
D		Voluntary Margin of Over-procurement (MWh)	-				-		
E	C+D	**Net RPS Procurement Need (MWh)**	426,312	159,025	167,596	176,279	502,900	177,160	178,046
		RPS-Eligible Procurement							
Fa		**Risk-Adjusted RECs from Online Generation (MWh)**	399,884	132,237	131,519	130,796	394,552	83,397	80,369
Faa		Forecast Failure Rate for Online Generation (%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Fb		**Risk-Adjusted RECs from RPS Facilities in Development (MWh)**	-				-		
Fbb		Forecast Failure Rate for RPS Facilities in Development (%)	*#DIV/0!*				*#DIV/0!*		
Fc		**Pre-Approved Generic RECs (MWh)**	-				-		
Fd		**Executed REC Sales (MWh)**	-				-		
F	Fa+Fb+Fc-Fd	**Total RPS Eligible Procurement (MWh)**	399,884	132,237	131,519	130,796	394,552	83,397	80,369
F0		Category 0 RECs	33,804	11,114	10,987	10,860	32,961	10,844	10,854
F1		Category 1 RECs	312,440	103,243	102,652	102,057	307,951	72,553	69,516
F2		Category 2 RECs	-				-		
F3		Category 3 RECs	53,640	17,880	17,880	17,880	53,640		
		Gross RPS Position (Physical Net Short)							
Ga	F-E	**Annual Gross RPS Position (MWh)**	(26,427)	(26,788)	(36,077)	(45,482)	(108,347)	(93,763)	(97,676)
Gb	F/A	Annual Gross RPS Position (%)	46%	45%	45%	45%	45%	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)	-			47,280	47,280	3,000	20,290
		Net RPS Position (Optimized Net Short)							
La	Ga+Ia-Ib-Hc	**Annual Net RPS Position after Bank Optimization (MWh)**	(26,427)	(26,788)	(36,077)	(45,482)	(108,347)	(93,763)	(97,676)
Lb	(F+Ia-Ib-Hc)/A	Annual Net RPS Position after Bank Optimization (%)	0.462834213	0.454607943	0.449890261	0.445192035	0.449881092	0.282446207	0.270838364

Note: All values are to be input in MWhs

Appendix D

Project Development Status Update

Reporting LSE Name	RPS Contract ID	Project Name	Technology Type	Project Development Phase	City	County	State	Zip Code	Latitude
Rancho Mirage Energy Autho	RMEA50012	1379 ColGreen and SE Athos I; LLC (PCC1 LT)	Solar PV - Ground Mount	Post-Construction	Multiple	Multiple	CA		Multiple

Reporting LSE Name	RPS Contract ID	Project Name	Longitude	Contract Length (Years)	Contract Execution Date (mm/dd/yyyy)	Contract Start Date (mm/dd/yyyy)	Contract End Date (mm/dd/yyyy)
Rancho Mirage Energy Autho	RMEA50012	1379 ColGreen and SE Athos I; LLC (PCC1 LT)	Multiple	10	9/11/19	1/1/21	12/31/30

Reporting LSE Name	RPS Contract ID	Project Name	Contract Capacity	Expected Annual Generation	Total Contract Volume	Commercial Operation Date (COD)	Trnasmission Status
Rancho Mirage Energy Autho	RMEA50012	1379 ColGreen and SE Athos I; LLC (PCC1 LT)	0	10500	105000	5/19/22	n/a

Reporting LSE Name	RPS Contract ID	Project Name	Storage: Rated Power (MW)	Storage: Capacity (MWh)
Rancho Mirage Energy Autho	RMEA50012	1379 ColGreen and SE Athos I; LLC (PCC1 LT)	0	0

Reporting LSE Name	RPS Contract ID	Project Name	Project Notes
Rancho Mirage Energy Autho	RMEA50012	1379 ColGreen and SE Athos I; LLC (PCC1 LT)	ColGreen has achieved commercial operation; IP Athos has acheived commercial operation and is now named SE Athos I, LLC.

Appendix E

Cost Quantification

LSE Name:	City of Rancho Mirage
Date Filed:	1/17/23

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	$606,848		
4	Biodiesel			
5	Biomass	$2,429,994	$835,882	$331,458.54
6	Muni Solid Waste			
7	Geothermal	$1,287,859	$2,930,595	$1,662,705.56
8	Small Hydro (Non-UOG)		$194,451	
9	Conduit Hydro			
10	Water Supply / Conveyance			
11	Ocean Wave			
12	Ocean Thermal			
13	Tidal Current			
14	Solar PV (Non-UOG)	$69,197	$372,430	$999,454.77
15	Solar Thermal			$200,665.00
16	Wind	$804,966	$9,768	$2,455,162.16
17	Unbundled RECs (REC Only)	$36,900		$43,793.90
18	Various (Index Plus REC)***			
19	Fuel Cell			
20	UOG: Small Hydro			
21	UOG: Solar PV			
22	UOG: Other			
23	Executed REC Sales (Revenue)			
24	**Total RPS-Eligible Procurement and Generation Net Cost**	**$5,235,764**	**$4,343,126**	**$5,693,240**
25	Total Retail Sales (MWh)	273,405.42	279,664	276,517.70
26	**Incremental Rate Impact**	**1.915018488**	**1.552978167**	**2.058906149**

LSE Name:	City of Rancho Mirage		Input Required		No Input Required							
Date Filed:	1/17/23											
Table 2: Cost Quantification (Forecast Costs and Revenues, $)		**Forecast RPS-Eligible Procurement Costs and Revenues ($)**										
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 (Revenue)											
25	**Total Executed But Not Approved RPS-Eligible Procurement and Generation Cost**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
26	Total Retail Sales (MWh)	282,305.73	283,717.26	285,135.85	286,561.53	287,994.34	289,434.31	290,881.48	292,335.89	293,797.57	295,266.55	296,742.89
27	**Incremental Rate Impact**	**0**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**	**0.00 ¢/kWh**
28	**Executed RPS-Eligible Contracts (Purchases and Sales)******	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
29	Biogas: Digester Gas											
30	Biogas: Landfill Gas											
31	Biodiesel											
32	Biomass											
33	Muni Solid Waste											
34	Geothermal											
35	Small Hydro (Non-UOG)											
36	Conduit Hydro											
37	Water Supply / Conveyance											
38	Ocean Wave											
39	Ocean Thermal											
40	Tidal Current											
41	Solar PV (Non-UOG)	$1,042,289	$969,773	$827,229	$778,746	$741,740	$696,360	$701,565	$706,822	$712,131		
42	Solar Thermal											
43	Wind	$2,566,048	$2,972,370	$3,577,049	$3,469,701	$3,387,767	$3,287,292	$3,298,816	$3,310,455	$3,322,211	$2,436,334	$2,448,326
44	Unbundled RECs (REC Only)	$44,407	$44,642	$44,878	$45,113	$45,348	$45,583	$45,818	$46,112	$46,348		
45	Various (Index Plus REC)***	$3,725,375	$1,725,087	$387,669	$218,749	$208,176	$195,210	$196,697	$198,199	$199,716	$201,248	
47	Fuel Cell											
48	UOG: Small Hydro											
49	UOG: Solar PV											
50	UOG: Other											
51	Executed REC Sales (Revenue)											
52	**Total Executed and Approved RPS-Eligible Procurement and Generation Cost**	**$7,378,120**	**$5,711,874**	**$4,836,825**	**$4,512,309**	**$4,383,030**	**$4,224,445**	**$4,242,896**	**$4,261,588**	**$4,280,406**	**$2,637,582**	**$2,448,326**
53	Total Retail Sales (MWh)	282,306	283,717	285,136	286,562	287,994	289,434	290,881	292,336	293,798	295,267	296,743
54	**Incremental Rate Impact**	**2.613520962**	**2.01322745**	**1.696322936**	**1.574638663**	**1.521915377**	**1.459552275**	**1.458634017**	**1.457771195**	**1.456923463**	**0.893288522**	**0.82506644**
55	**Total RPS-Eligible Procurement and Generation Cost**	**$7,378,120**	**$5,711,874**	**$4,836,825**	**$4,512,309**	**$4,383,030**	**$4,224,445**	**$4,242,896**	**$4,261,588**	**$4,280,406**	**$2,637,582**	**$2,448,326**
56	**Total Incremental Rate Impact**	**2.613520962**	**2.01322745**	**1.696322936**	**1.574638663**	**1.521915377**	**1.459552275**	**1.458634017**	**1.457771195**	**1.456923463**	**0.893288522**	**0.82506644**

*Note: Technology definitions are given in the PCC Classification Handbook located in the RPS Compliance Reporting section of: https://www.cpuc.ca.gov/RPSComplianceReporting/

**Note: For contracts that have been executed but still require formal approval (CPUC or other formal approval process) for purchases and sales.

***Note: The "Various" technology type is to be used in the case of contracts encompassing multiple facilities where the generation type is not yet known

****Note: For IOUs and SMJUs: Include all executed contracts that required CPUC approval. For CCAs and ESPs: Include all executed contracts that have been approved through relevant formal approval processes.

LSE Nam	City of Rancho Mirage		Input Required	
Date File	1/17/23			

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	10,990		
4	Biodiesel			
5	Biomass	44,136	17,017	5,000
6	Muni Solid Waste			
7	Geothermal	23,374	58,749	25,332
8	Small Hydro (Non-UOG)		5,000	
9	Conduit Hydro			
10	Water Supply / Conveyance			
11	Ocean Wave			
12	Ocean Thermal			
13	Tidal Current			
14	Solar PV (Non-UOG)	1,581	8,998	14,500
15	Solar Thermal			3,027
16	Wind	18,419	236	45,681
17	Unbundled RECs (REC Only)	21,000		17,681
18	Various (Index Plus REC)***			
19	Fuel Cell			
20	UOG: Small Hydro			
21	UOG: Solar PV			
22	UOG: Other			
23	Executed REC Sales (MWh)			
24	**Total RPS Eligible Procurement (MWh)**	**119,500**	**90,000**	**111,221**

LSE Name	City of Rancho Mirage		Input Required		No Input Required							
Date Filed	1/17/23											
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											
31	Muni Solid Waste											
32	Geothermal											
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)	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500		
40	Solar Thermal											
41	Wind	46,925	52,093	62,438	62,438	62,438	62,438	62,438	62,438	62,438	43,538	43,538
42	Unbundled RECs (REC Only)	17,880	17,880	17,880	17,880	17,880	17,880	17,880	17,880	17,880		
43	Various (Index Plus REC)***	40,000	20,000	5,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	
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**	**115,305**	**100,473**	**95,818**	**93,818**	**93,818**	**93,818**	**93,818**	**93,818**	**93,818**	**46,538**	**43,538**
51	**Total RPS Eligible Procurement (MWh)**	**115,305**	**100,473**	**95,818**	**93,818**	**93,818**	**93,818**	**93,818**	**93,818**	**93,818**	**46,538**	**43,538**

*Note: Technology definitions are given in the PCC Classification Handbook located in the RPS Compliance Reporting section of: https://www.cpuc.ca.gov/RPSComplianceReporting/

**Note: For contracts that have been executed but still require formal approval (CPUC or other formal approval process) for purchases and sales.

***Note: The "Various" technology type is to be used in the case of contracts encompassing multiple facilities where the generation type is not yet known

****Note: For IOUs and SMJUs: Include all executed contracts that required CPUC approval. For CCAs and ESPs: Include all executed contracts that have been approved through relevant formal approval processes.