

AGENDA COMMUNITY ADVISORY COMMITTEE MEETING THURSDAY, SEPTEMBER 15, 2022 1:00 P.M.

****AB 361****

RE CORONAVIRUS COVID-19

CONSISTENT WITH THE PROVISIONS OF AB 361, MEMBERS OF THE COMMUNITY ADVISORY COMMITTEE WILL PARTICIPATE IN THE SEPTEMBER 15, 2022, MEETING BY TELECONFERENCE. IN-PERSON PARTICIPATION BY THE PUBLIC WILL NOT BE PERMITTED AND NO PHYSICAL LOCATION FROM WHICH THE PUBLIC MAY ATTEND THE MEETING WILL BE AVAILABLE. REMOTE PUBLIC PARTICIPATION DETAILS ARE LISTED BELOW.

Members of the public who wish to participate in the Community Advisory Committee Meeting may do so via the following webinar link or teleconference call-in number and meeting code:

- Webinar link: <u>https://us06web.zoom.us/j/89591222887</u>
 - Telephone number: 1 (720) 707-2699
 - Meeting ID: 895 9122 2887

PLEASE NOTE: This meeting will be conducted entirely by teleconference.

How to Submit Public Comment During the Teleconference Meeting:

The Chair will request public comment during the Public Comment period for all items on the agenda. Comments may be submitted in writing (preferred) to **meetings@sonomacleanpower.org** or during the meeting via the webinar "raise your hand" feature. For detailed public comment instructions, **please visit this page**.

For written comments, state the agenda item number that you are commenting on and limit to 300 words. Written comments received prior to the meeting and/or the agenda item you wish to comment on will be read into the record up to 300 words.

DISABLED ACCOMMODATION: If you have a disability which requires an accommodation or an alternative format, please contact the Clerk of the Board at (707) 757-9417, or by email at meetings@sonomacleanpower.org as soon as possible to ensure arrangements for accommodation.

Agenda Page **1** of **2 1 of 69** Staff recommendations are guidelines to the Committee. On any item, the Committee may take action which varies from that recommended by staff.

CALL TO ORDER

PUBLIC COMMENT ON MATTERS NOT LISTED ON THE AGENDA

(Comments are restricted to matters within the Committee's jurisdiction. Please be brief and limit spoken comments to three minutes, or 300 words if written.)

COMMUNITY ADVISORY COMMITTEE CONSENT CALENDAR

1.	Approve July 21, 2022, Draft Community Advisory Committee Meeting	pg 5
	Minutes (Staff Recommendation: Approve)	

COMMUNITY ADVISORY COMMITTEE REGULAR CALENDAR

2.	Receive Internal Operations and Monthly Financial Report and Provide Feedback as Appropriate (Staff Recommendation: Receive and File)	pg 11
3.	Receive Legislative and Regulatory Updates and Provide Feedback as Appropriate (Staff Recommendation: Receive and File)	pg 33
4.	Recommend the Board Authorize the CEO or his Designee to Execute Memorandum of Understanding Agreements with GeoZone Private Partners and Initiate Negotiations of Public-Private Cooperation Agreements (Staff Recommendation: Approve)	pg 41
5.	Recommend the Board Adopt Staff's Preferred Portfolio for the 2022 Integrated Resource Plan Filing (Staff Recommendation: Approve)	pg 47
6.	Discuss Future Opportunities for Distributed Renewable and Storage Resources Within the SCP Service Territory (Staff Recommendation: Receive and File)	pg 69

COMMITTEE MEMBER ANNOUNCEMENTS

ADJOURN

Agenda Page 2 of 2

COMMONLY USED ACRONYMS AND TERMS

CAC	Community Advisory Committee
CAISO	California Independent Systems Operator - the grid operator
CCA	Community Choice Aggregator - a public power provider
CEC	California Energy Commission
CleanStart	SCP's default power service
CPUC	California Public Utilities Commission
DER	Distributed Energy Resource
ERRA	Energy Resource Recovery Account - one of PG&E's rate cases at the CPUC
EverGreen	SCP's 100% renewable, 100% local energy service, and the first service in the United States providing renewable power every hour of every day.
Geothermal	A locally-available, low-carbon baseload renewable resource
GHG	Greenhouse gas
GRC	General Rate Case - one of PG&E's rate cases at the CPUC
GridSavvy	GridSavvy Rewards are available to SCP customers for reducing household energy use when needed to help California ensure reliable low-emission power. A form of 'demand response.'
IOU	Investor Owned Utility (e.g., PG&E)
IRP	Integrated Resource Plan - balancing energy needs with energy resources
JPA	Joint Powers Authority
MW	Megawatt is a unit of power and measures how fast energy is being used or produced at one moment.
MWh	Megawatt-hour is a unit of energy and measures how much energy is used or produced over time.
NEM	Net Energy Metering. NEM is a billing mechanism that credits solar energy system owners for the electricity they add to the grid.
NetGreen	SCP's net energy metering bonus
PCIA	Power Charge Indifference Adjustment - a fee charged by PG&E to all electric customers to ensure PG&E can pay for excess power supply contracts that it no longer needs.
RA	Resource Adequacy - a required form of capacity that helps ensure there are sufficient power resources available when needed.
RPS	Renewables Portfolio Standard refers to certain kinds of renewable energy which qualify to meet state requirements, including wind, solar, geothermal.
SCP	Sonoma Clean Power
TOU	Time of Use, used to refer to rates that differ by time of day

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DRAFT MEETING MINUTES COMMUNITY ADVISORY COMMITTEE MEETING THURSDAY, JULY 21, 2022 1:00 P.M.

****AB 361****

RE CORONAVIRUS COVID-19 **HYBRID MEETING (IN PERSON AND REMOTE ATTENDANCE)**

CONSISTENT WITH THE PROVISIONS OF AB 361 WHICH SUSPENDED CERTAIN REQUIREMENTS OF THE BROWN ACT, MEMBERS OF THE COMMUNITY ADVISORY COMMITTEE PARTICIPATED IN THE JULY 21, 2022, MEETING IN PERSON AND BY REMOTE ATTENDANCE.

CALL TO ORDER

(1:04 p.m. - Video Time Stamp: 00:02:45)

Chair Quinlan called the meeting to order.

Committee Members present: Chair Quinlan, Vice Chair Morris, and Members Fenichel, Hollinshead, Dowd, Kelly, Wells, Nicholls, Booth, and Lipp.

Staff present: Geof Syphers, Chief Executive Officer; Michael Koszalka, Chief Operating Officer; Rebecca Simonson, Director of Programs; Erica Torgerson, Director of Customer Service; and Felicia Smith, Program Manager.

PUBLIC COMMENT ON MATTERS NOT LISTED ON THE AGENDA

(1:04 p.m. - Video Time Stamp: 00:02:53)

Public Comment: None

COMMUNITY ADVISORY COMMITTEE CONSENT CALENDAR

(1:05 p.m. - Video Time Stamp: 00:03:15)

- 1. Approve June 16, 2022, Draft Community Advisory Committee Meeting Minutes
- 2. Receive Geothermal Opportunity Zone Update

Member Hollinshead requested a brief discussion on Item 2. Member Hollinshead asked how the Company Cyrq operated. Geof Syphers, CEO, explained that Cyrq stores thermal energy during peak solar hours to increase output during non-solar hours, thus shaping geothermal power.

Public Comment: None

Motion to approve the July 21, 2022, Community Advisory Committee Consent Calendar by Member Nicholls

Second: Member Dowd

Motion passed by roll call vote

AYES: Quinlan, Morris, Fenichel, Hollinshead, Dowd, Kelly, Wells, Nicholls, Booth, Lipp

BOARD OF DIRECTORS REGULAR CALENDAR

3. Receive Internal Operations and Monthly Financial Report and Provide Feedback as Appropriate

(1:13 p.m. - Video Time Stamp: 00:11:23)

CEO Syphers welcomed the CAC to the first hybrid meeting.

Erica Torgerson, Director of Customer Service, discussed the California Arrearage Payment Program (CAPP) and the decision to extend the program.

Michael Koszalka, Chief Operating Officer, discussed SCP's new customer rates which were adjusted so that SCP's customer bills were no higher than PG&E's. He stated that this rate change will affect SCP's budget by \$1.5 million. He also stated that the BOD approved moving deferred revenue and this will be shown in the June SCP financials.

Public Comment: None

4. Receive Legislative and Regulatory Updates and Provide Feedback as Appropriate

(1:18 p.m. - Video Time Stamp: 00:16:42)

CEO Syphers mentioned the California State Legislature was in recess. He gave an update on the US Supreme Court decision, *West Virginia et al v. Environmental Protection Agency et al*, where the Supreme Court held that the EPA does not have the right to regulate carbon dioxide emissions.

Member Hollinshead asked if a large fire would change the thinking on SB 122 and CEO Syphers explained that fires were used to support the legislation.

Member Lipp inquired about energy reliability in the summer and the use of energy efficiency demand response and CEO Syphers responded that it is important to watch.

Member Booth requested a status update on AB 2061 (Becker) and AB 2703 (Bennett, Bloom, Rivas) regarding electric vehicle charging reliability. CEO Syphers stated that AB 2061 would give incentives for EV chargers but would require a return of funds if the chargers were not maintained and he stated he would have more at the next CAC meeting.

Public Comment: None

5. Receive Overview of CPUC-Funded FLEXmarket Program

(1:31 p.m. - Video Time Stamp: 00:29:36)

Felicia Smith, Program Manager, discussed the FLEXmarket program and she stated that on June 2, 2022, the CPUC approved \$3 million for SCP to administer the program which would be funded from non-bypassable charges on ratepayer bills. She explained that the program would promote energy efficiency through load shifting and SCP is putting together an implementation program which will be ready on September 1, 2022.

Member Lipp asked if the program would be targeting electrification and Program Manager Smith explained that the program doesn't support fuel switching goals but rather focuses on energy efficiency.

Member Nicholls asked if this program would include floor insulation and Program Manager Smith answered that it would include anything that saves energy.

Public Comment: None

6. Recommend that the Board of Directors Approve the Scope of Work and Budget for AutoGrid Systems, Inc. to Administer the GridSavvy Rewards Program and Delegate Authority to the CEO to Negotiate Contract Legal Terms, Negotiate Minor Revisions to the Scope of Work Within a Budget Not to Exceed \$1,744,500, and Execute the Professional Service Agreement for a Term Through December 2026.

(1:38 p.m. - Video Time Stamp: 00:37:05)

Rebecca Simonson, Director of Programs, discussed GridSavvy which is SCP's reward-based demand response program and its goal to reduce demand when it is needed. She explained that AutoGrid was selected out of eight candidates to administer the program because of their current infrastructure, and they were the most cost competitive.

CEO Syphers added that the hope is the program will pay for itself in the next five years and once it is self-financing it will be able to scale.

Chair Quinlan asked what impact the program can have on a Public Safety Power Shutoff (PSPS) during fire season and CEO Syphers answered that it is limited at the scale SCP is operating.

Member Nicholls asked if SCP had noticed any positive behavioral changes based on calling demand response events and Director Simonson said yes.

Vice Chair Morris inquired if there would be any communications with customers after the outcomes of the events and Director Simonson responded that this is part of the contract and AutoGrid would be building a customer portal to view the results of their actions as well as incentives received.

Member Booth asked if the portal would generate email responses. Director Simonson answered that it would have the capability to do that, and SCP would work to do that.

Public Comment: None

Motion to approve the Scope of Work and Budget for AutoGrid Systems, Inc. to Administer the GridSavvy Rewards Program and Delegate Authority to the CEO to Negotiate Contract Legal Terms, Negotiate Minor Revisions to the Scope of Work Within a Budget Not to Exceed \$1,744,500, and Execute the Professional Service Agreement for a Term Through December 2026 by Chair Quinlan

Second: Member Nicholls

Motion passed by roll call vote

AYES: Quinlan, Morris, Fenichel, Hollinshead, Dowd, Kelly, Wells, Nicholls, Booth, Lipp

COMMITTEE MEMBER ANNOUNCEMENTS

(1:54 p.m. - Video Time Stamp: 00:54:44)

Member Dowd stated that he enjoyed meeting with everyone in person.

ADJOURN

(1:54 p.m. - Video Time Stamp: 00:55:10)

The meeting was adjourned by unanimous consent.

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Staff Report - Item 02

То:	Sonoma Clean Power Authority Community Advisory Committee
From:	Stephanie Reynolds, Director of Internal Operations Mike Koszalka, Chief Operating Officer
Issue:	Receive Internal Operations and Monthly Financial Report
Date:	September 15, 2022

COMMUNITY UPDATE & LOCAL RECOGNITION

It has been a busy summer for SCP! As part of our Hall of Flowers sponsorship at the Sonoma County Fair, our garden display featured the benefits of electric yard tools and offered a chance to win a Friedman's Home Improvement gift card or an electric leaf blower. Click <u>here</u> to view a time lapse video of the display, which had a corresponding display at the Advanced Energy Center.

Other summer events included sponsoring the summer movie series in Courthouse Square, culminating with a showing of Back to the Future, complete with a real DeLorean on-site for photo ops.

Awards season is in full swing, and Sonoma Clean Power is honored to be recognized as the Best Company to do Business within Sonoma County by readers of North Bay Biz magazine, as well receiving Best Places to Work honors for the 4th consecutive year by the North Bay Business Journal.

SCP is sponsoring the LIME Foundation's Dream Big Gala, the Petaluma Education Foundation's BASH, The Made in Santa Rosa Education Foundation's inaugural luncheon and has a second date scheduled for roadside beautification as an Adopt-a-Road sponsor through the County of Sonoma.

On August 10, we hosted a Cool Petaluma "Cool Block" event at the Advanced Energy Center and gave a tour to 40 people passionate about energy saving and electrification.

Finally, SCP is beginning to plan our holiday giving programs to fight food insecurity in our communities, including donations to a variety of local food banks and a Drive Up and Donate event at the Advanced Energy Center on November 4th, benefiting Redwood Empire Food Bank. Stay tuned for information about ways to donate and help brighten the holidays for those in need.

ADVANCED ENERGY CENTER

This year our team will work to provide events and an experience that will engage communities not already involved in combatting the Climate Crisis. In order to reach higher goals in 2023 the staff intends to combine this extended outreach with empowering current climate activists to utilize the Center more for their community.

Recently we hosted a two-day seminar for the National Association of Realtors. They learned about how these energy efficient appliances can affect the value of a home and why they should motivate homeowners to make these upgrades prior to selling their homes to add value to the sale. This month the Center will host an all-Spanish culinary event led by the chef from El Molcajete.

Incentives have increased for heat pump water heaters to \$3100 for each approved water heater. You can now save on your heat pump HVAC equipment with a \$3000 rebate. If you want to cook with the innovative magnetic form of induction, you can bundle the \$500 SCP incentive with BayREN's \$750 incentive to save on that cooktop, plus you get a free set of cookware. These new incentive amounts are available now through the Center.

Two recent interactions with customers at the Advanced Energy Center:

- "I recently visited the Center with my daughter to discuss a house that I am designing for my daughter. Even though this house is going to be built in Fortuna, Humboldt County, your staff went online and gave me a list of websites to assist us, and explained rebates from the new federal calculator. They were vital to helping us build the right home. Keep up the good work in helping us fight climate change!"
- "I speak at Energy Centers all across the nation. This is by far the most engaging and interactive energy center I have seen. It brings the right atmosphere to teach about energy efficient appliances. How can I get my city to build one of these?"

SGIP PROGRAM

In 2019, at the encouragement of the Board of Directors to engage on resiliency, staff met with representatives of local battery storage installers. The local battery storage installers shared obstacles with the California Public Utility Commission's (CPUC) Self-Generation Incentive Program (SGIP). One main issue for installers is the difficult and

time-consuming application process. A main obstacle for customers is the long amount of time between submitting the rebate form and receiving the incentives. Incentives are released after the project is complete and can take many months (and even years).

In February 2020, staff brought a proposed SGIP Assistance program to the Community Advisory Committee (CAC) to help these issues. Staff proposed a revolving fund of \$650,000 to provide customers the anticipated SGIP incentive upfront. The SGIP incentive would be assigned to SCP and added back into the revolving fund to fund additional projects. Staff also proposed entering into a Professional Services Agreement for an amount not to exceed \$100,000 with consultant, Your SolarMate, who would submit SGIP applications on behalf of the installer. Your SolarMate was selected from a competitive Request for Qualifications (RFQ) process. The CAC recommended approval and the Board of Directors approved the program in March 2020.

The program was launched beginning of April 2020 and received significant participation right away. Most projects were Equity Resiliency incentives which covers 100% of the battery cost. Anticipating great need locally, staff came back to the CAC and Board to request \$1.4 million in additional budget for the revolving fund. This request was approved which increased the revolving fund to \$2.15 million to help assist vulnerable populations in preparing for Public Safety Power Shutoff (PSPS) events. Later in 2020, staff also came back to the CAC and Board to add budget for Your SolarMate SGIP application services and extend the agreement term.

SCP continues to assist battery installers and customers with SGIP.

Staff have received comments from battery installers who are grateful for help with the application free of charge and from customers who otherwise would not have been able to install battery systems.

Funding	Through 9/8/22
Total upfront incentives provided to customers since	
launch	\$2,179,308.59
SGIP incentives received from PG&E	\$1,064,202.52
SGIP incentives due to SCP from PG&E	\$1,115,106.07

Project Status	Number of Projects
Active	47
Cancelled	36
On-Hold	4

Completed	101
Total	188

MONTHLY COMPILED FINANCIAL STATEMENTS

The change in net position for the fiscal year ended June 30, 2022 was slightly better than projections, with total expenditures under budget by 1%. SCP recognized \$26,000,000 Operating Reserve Funds as revenue in June 2022.

Approximately \$63,511,000 was set aside for operating reserves as of June 30, 2021. Operating reserves are expected to increase to near the minimum reserve balance as of June 30, 2022 and will be updated when audited financials become available.

The July 2022 change in net position was also slightly better than projections. Revenue from electricity sales and cost of energy were both above budget projections, but the result was favorable as the increase in revenue exceeded that of cost of energy. Year-to-date electricity sales reached \$25,540,000.

SCP maintains a balanced portfolio by procuring electricity from multiple sources. Net position reached a positive \$137,961,000, which indicates healthy growth as SCP continues to make progress towards its reserve goals.

Aside from cost of energy, overall other operating expenses continued near or slightly below planned levels for the year.

BUDGETARY COMPARISON SCHEDULE

The accompanying budgetary comparison includes the 2022/23 budget approved by the Board of Directors.

The budget is formatted to make comparisons for both the annual and the year-todate perspective. The first column, 2022/23 YTD Budget, allocates the Board approved annual budget at expected levels throughout the year with consideration for the timing of additional customers, usage volumes, staffing needs etc. This column represents our best estimates, and this granular approach was not part of the Board approved budget.

Revenue from electricity sales to customers was above budget by approximately 12% at the end of the reporting period.

The cost of electricity was more than the budget-to-date by approximately 9%. Variation in this account is typically due to fluctuating market cost of energy on open position purchases.

Major operating categories of Data Management fees and PG&E Service fees are based on the customer account totals and are closely aligned to budget.

In addition to the items mentioned above, SCP continued its trend of remaining near or under budget for most of its operating expenses.

ATTACHMENTS

- June 2022 Financials
- ➢ July 2022 Financials

UPCOMING MEETINGS

- > Board of Directors October 6, 2022
- Community Advisory Committee October 20, 2022
- Board of Directors November 3, 2022



ACCOUNTANTS' COMPILATION REPORT

Board of Directors Sonoma Clean Power Authority

Management is responsible for the accompanying special purpose statement of Sonoma Clean Power Authority (a California Joint Powers Authority) which comprise the budgetary comparison schedule for the period ended June 30, 2022, and for determining that the budgetary basis of accounting is an acceptable financial reporting framework. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the accompanying statement nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any assurance on this special purpose budgetary comparison statement.

The special purpose statement is prepared in accordance with the budgetary basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. This report is intended for the information of the Board of Directors of Sonoma Clean Power Authority.

Management has elected to omit substantially all of the note disclosures required by accounting principles generally accepted in the United States of America in these interim financial statements. Sonoma Clean Power Authority's annual audited financial statements include the note disclosures omitted from these interim statements. If the omitted disclosures were included in these financial statements, they might influence the user's conclusions about the Authority's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

We are not independent with respect to the Authority because we performed certain accounting services that impaired our independence.

Maker Accountancy

San Rafael, CA August 15, 2022



	BUDGET [,] Twelv	OPERATING F ARY COMPARIS e Months Ended	FUND SON SCHEDULE June 30, 2022			
	2021/22 YTD Amended Budget	2021/22 YTD Actual	2021/22 YTD Amended Budget Variance (Under) Over	2021/22 YTD Actual / Amended Budget %	2021/22 Amended Budget	2021/22 Amended Budget Remaining
REVENUE AND OTHER SOURCES: Electricity (net of allowance) * Evergreen Premium (net of allowance) Inflow from Operating Account Fund Reserves CEC Grant BAAQMD grant Interest income (excluding FMV adjustments) Total revenue and other sources	<pre>\$ 191,599,000 \$ 2,074,000 \$ 2,065,000 \$ 50,000 \$ 840,000 \$ 196,628,000</pre>	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	\$ 300,638 253,587 26,000,000 (623,112) (65,575) (478,147) 25,387,391	100% 112% 0% -31% 43% 113%	<pre>\$ 191,599,000 \$ 2,074,000 \$ 2,065,000 \$ 60,000 \$ 840,000 \$ 196,628,000</pre>	\$ (300,638) (253,587) (26,000,000) (26,000,000) (25,112 (55,575 478,147 (25,387,391)
EXPENDITURES AND OTHER USES: CURRENT EXPENDITURES						
Cost of energy and scheduling Data management Service fees- PG&E	165,468,936 3,198,000 973,000	169, 128, 210 3,068, 206 977, 662	3,659,274 (129,794) 4,662	102% 96% 100%	165,468,936 3,198,000 973,000	(3,659,274) 129,794 (4,662)
Outreach and communications	6,200,000 1,350,000	5,710,894 1,100,028	(489,106) (249,972)	92% 81%	6,200,000 1,350,000	489,106 249,972
Customer service General and administration	363,000 1,140,000 110 000	369,317 1,213,031 245 163	6,317 73,031 (164 837)	102% 106% 60%	363,000 1,140,000 110 000	(6,317) (73,031) 164,837
Regulatory and compliance	430,000	271,174	(158,826) (158,826)	63%	430,000	158,826
Legislative Other consultants	120,000	48,000	(72,000) (72,000) 3 133	40%	120,000 120,000 225,000	72,000
Industry memberships and dues Program implementation	536,000 5,640,000	470,071 3,178,162	(65,929) (2,461,838)	56%	536,000 5,640,000	65,929 65,929 2,461,838
Program - CEC grant Total current expenditures	4,000,000 190,298,936	1,547,754 187,781,125	$\frac{(2,452,246)}{(2,517,811)}$	<u> </u>	4,000,000 190,298,936	2,452,246 2,517,811
OTHER USES Capital outlay Total Expenditures, Other Uses and Debt Service	$\frac{1,393,000}{191,691,936}$	$\frac{1,082,248}{188,863,373}$	$\frac{(310,752)}{(2,828,563)}$	78% 99%	$1,393,000\\191,691,936$	310,752 2,828,563
Net increase (decrease) in available fund balance * Represents sales of approximately 2,231,000 MWh for 2021/22 YTD	\$ 4,936,064 D actual.	\$ 33,152,018	\$ 28,215,954		\$ 4,936,064	\$ (28,215,954)
RESERVES	Current Balance	% of Long- Term Target	Long-Term Targeted Balance			

145,983,000

\$

44%

63,511,000

S

Operating Reserve (as of June 30, 2021)

OPERATING FUND BUDGET RECONCILIATION TO STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION Twelve Months Ended June 30, 2022

Net increase (decrease) in available fund balance per budgetary comparison schedule:	\$ 33,152,018
Adjustments needed to reconcile to the	
changes in net position in the	
Statement of Revenues, Expenses	
and Changes in Net Position:	
Subtract depreciation expense	(1,373,171)
Subtract fair market value adjustment	(1,253,182)
Add back capital asset acquisitions	1,104,147
Add back certain program expenses	
recognized for budget purposes only	 (200,000)
Change in net position	\$ 31,429,812



ACCOUNTANTS' COMPILATION REPORT

Management Sonoma Clean Power Authority

Management is responsible for the accompanying financial statements of Sonoma Clean Power Authority (a California Joint Powers Authority) which comprise the statement of net position as of June 30, 2022, and the related statement of revenues, expenses, and changes in net position, and the statement of cash flows for the period then ended in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the accompanying statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, conclusion, nor provide any assurance on these financial statements.

Management has elected to omit substantially all of the note disclosures required by accounting principles generally accepted in the United States of America in these interim financial statements. Sonoma Clean Power Authority's annual audited financial statements include the note disclosures omitted from these interim statements. If the omitted disclosures were included in these financial statements, they might influence the user's conclusions about the Authority's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

We are not independent with respect to the Authority because we performed certain accounting services that impaired our independence.

Maker Accountancy

San Rafael, CA August 15, 2022

STATEMENT OF NET POSITION As of June 30, 2022

ASSETS

Current assets	
Cash and cash equivalents	\$ 43,103,542
Accounts receivable, net of allowance	26,895,377
Other receivables	1,669,138
Accrued revenue	13,431,809
Prepaid expenses	2,961,243
Deposits	5,462,981
Investments	 35,176,525
Total current assets	 128,700,615
Noncurrent assets	
Land	860,520
Capital assets, net of depreciation	18,742,607
Deposits	 846,256
Total noncurrent assets	 20,449,383
Total assets	 149,149,998
LIABILITIES	
Current liabilities	
Accrued cost of electricity	14,643,563
Accounts payable	1,412,186
Other accrued liabilities	1,300,809
User taxes and energy surcharges due to other governments	675,415
Total current liabilities	18,031,973

NET POSITION

Investment in capital assets	19,603,127
Unrestricted	111,514,898
Total net position	\$ 131,118,025

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION Twelve Months Ended June 30, 2022

OPERATING REVENUES Electricity sales, net \$ 188,443,380 Revenue directed from Rate Stabilization Fund 26,000,000 Evergreen electricity premium 2,327,587 Grant revenue 4,908,306 Total operating revenues 221,679,273 **OPERATING EXPENSES** Cost of electricity 169,128,210 9,858,749 Contract services Staff compensation 5,710,894 General and administration 1,854,157 Program rebates and incentives 1,407,216 Depreciation 1,373,171 Total operating expenses 189,332,397 Operating income (loss) 32,346,876 **NONOPERATING REVENUES (EXPENSES)** Investment earnings (loss) (891, 329)Other nonoperating revenue (25,735)Nonoperating revenues (expenses), net (917,064) **CHANGE IN NET POSITION** 31,429,812 Net position at beginning of period 99,688,213 Net position at end of period \$ 131,118,025

STATEMENT OF CASH FLOWS Twelve Months Ended June 30, 2022

CASH FLOWS FROM OPERATING ACTIVITIES

Receipts from customers	\$ 180,678,706
Other operating receipts	14,123,893
Payments to electricity suppliers	(175,226,864)
Payments for other goods and services	(11,672,236)
Payments for staff compensation	(5,696,651)
Tax and surcharge payments to other governments	(2,325,905)
Payments for program rebates and incentives	(2,193,938)
Net cash provided (used) by operating activities	(2,312,995)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Payments to acquire capital assets	(3,590,197)
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest income received	153,923
Net cash provided (used) by investing activities	153,923
Net change in cash and cash equivalents	(5,749,269)
Cash and cash equivalents at beginning of year	48,852,811
Cash and cash equivalents at end of period	\$ 43,103,542
Reconciliation to the Statement of Net Position	
Unrestricted cash and cash equivalents (current)	\$ 43,103,542
Cash and cash equivalents	\$ 43,103,542

STATEMENT OF CASH FLOWS (continued) Twelve Months Ended June 30, 2022

RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES

Operating income (loss)	\$ 32,346,876
Adjustments to reconcile operating income to net	
cash provided (used) by operating activities:	
Depreciation expense	1,373,171
Revenue adjusted for provision for uncollectible accounts	(482,437)
(Increase) decrease in:	
Accounts receivable	(7,637,812)
Other receivables	(104,403)
Accrued revenue	(4,453,205)
Prepaid expenses	(1,850,901)
Deposits	3,644,601
Increase (decrease) in:	
Accrued cost of electricity	1,502,115
Accounts payable	(116,334)
Accrued liabilities	(856,753)
User taxes due to other governments	155,287
Supplier security deposits	166,800
Rate Stabilization Fund	 (26,000,000)
Net cash provided (used) by operating activities	\$ (2,312,995)



ACCOUNTANTS' COMPILATION REPORT

Board of Directors Sonoma Clean Power Authority

Management is responsible for the accompanying special purpose statement of Sonoma Clean Power Authority (a California Joint Powers Authority) which comprise the budgetary comparison schedule for the period ended July 31, 2022, and for determining that the budgetary basis of accounting is an acceptable financial reporting framework. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the accompanying statement nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any assurance on this special purpose budgetary comparison statement.

The special purpose statement is prepared in accordance with the budgetary basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. This report is intended for the information of the Board of Directors of Sonoma Clean Power Authority.

Management has elected to omit substantially all of the note disclosures required by accounting principles generally accepted in the United States of America in these interim financial statements. Sonoma Clean Power Authority's annual audited financial statements include the note disclosures omitted from these interim statements. If the omitted disclosures were included in these financial statements, they might influence the user's conclusions about the Authority's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

We are not independent with respect to the Authority because we performed certain accounting services that impaired our independence.

Maker Accountancy

San Rafael, CA September 2, 2022

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BUDGETARY COMPARISON SCHEDULE SONOMA CLEAN POWER AUTHORITY One Month Ended July 31, 2022 **OPERATING FUND**

	2022/23 YTD Budget	2022/23 YTD Actual	2022/23 YTD Budget Variance (Under) Over	2022/23 YTD Actual / Budget %	2022/23 Budget	2022/23 Budget Remaining
REVENUE AND OTHER SOURCES:						
Electricity (net of allowance) * Evergreen Premium (net of allowance)	\$ 22,696,683 214.708	\$ 25,326,640 213.766	\$ 2,629,957 (942)	112% 100%	2.312.000	\$ 219,073,360 2.098.234
CEC Grant	117,833		(117,833)	%0	1,414,000	1,414,000
Interest income	31,667	51,659	19,992	163%	380,000	328,341
Miscellaneous Income	85,417		(85,417)	0%0	1,025,000	1,025,000
Total revenue and other sources	23,146,308	25,592,065	2,445,757	111%	249,531,000	223,938,935
EXPENDITURES AND OTHER USES:						
CURRENT EAFENDITURES						
Cost of energy and scheduling	15,788,082	17,206,502	1,418,420	109%	171,380,000	154,173,498
Data management	223,083	223,580	497	100%	2,677,000	2,453,420
Service fees- PG&E	81,583	82,005	422	101%	979,000	896,995
N ^{personnel}	616,881	549,021	(67, 860)	89%	7,650,000	7,100,979
G Energy Center, marketing & communications	225,572	207,300	(18, 272)	92%	2,557,000	2,349,700
O Customer service	12,584	18,515	5,931	147%	291,000	272,485
General and administration	93,100	108,838	15,738	117%	1,140,000	1,031,162
G Legal	35,833	3,985	(31, 848)	11%	430,000	426,015
Regulatory and compliance	43,317	29,746	(13, 571)	%69	460,000	430,254
Accounting	21,500	17,000	(4,500)	79%	258,000	241,000
Legislative	18,333	8,000	(10,333)	44%	220,000	212,000
Other consultants	47,583	17,695	(29,888)	37%	571,000	553,305
Industry memberships and dues	92,500	71,087	(21,413)	77%	560,000	488,913
Program implementation	321,923	50,857	(271,066)	16%	6,025,000	5,974,143
Program - CEC grant	348,333	41,870	(306,463)	12%	4,180,000	4,138,130
Total current expenditures	17,970,207	18,636,001	665,794	104%	199,378,000	180,741,999
OTHER USES						
Capital outlay	50,000	60,816	10,816	122%	600,000	539,184
Total Expenditures, Other Uses	18,020,207	18,696,817	676,610	104%	199,978,000	181,281,183
Net increase (decrease) in available fund balance	\$ 5,126,101	\$ 6,895,248	\$ 1,769,147		\$ 49,553,000	\$ 42,657,752
* Represents sales of approximately 177,000 MWh for 2022/23 YTD actu	ial.					
		% of Long-	Long-Term			
RESERVES	Current Balance	Term Target	Targeted Balance			

See accountants' compilation report.

\$ 152,948,000

42%

Current Balance \$ 63,511,000

Operating Reserve (as of June 30, 2021)

OPERATING FUND BUDGET RECONCILIATION TO STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION One Month Ended July 31, 2022

Net increase (decrease) in available fund balance	
per budgetary comparison schedule:	\$ 6,895,248
Adjustments needed to reconcile to the	
changes in net position in the	
Statement of Revenues, Expenses	
and Changes in Net Position:	
Subtract depreciation expense	(113,272)
Add back capital asset acquisitions	 60,816
Change in net position	\$ 6,842,792



ACCOUNTANTS' COMPILATION REPORT

Management Sonoma Clean Power Authority

Management is responsible for the accompanying financial statements of Sonoma Clean Power Authority (a California Joint Powers Authority) which comprise the statement of net position as of July 31, 2022, and the related statement of revenues, expenses, and changes in net position, and the statement of cash flows for the period then ended in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the accompanying statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, conclusion, nor provide any assurance on these financial statements.

Management has elected to omit substantially all of the note disclosures required by accounting principles generally accepted in the United States of America in these interim financial statements. Sonoma Clean Power Authority's annual audited financial statements include the note disclosures omitted from these interim statements. If the omitted disclosures were included in these financial statements, they might influence the user's conclusions about the Authority's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

We are not independent with respect to the Authority because we performed certain accounting services that impaired our independence.

Maber Accountancy

San Rafael, CA September 2, 2022

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STATEMENT OF NET POSITION As of July 31, 2022

ASSETS

Current assets				
Cash and cash equivalents \$ 48,801,08				
Accounts receivable, net of allowance		31,141,831		
Other receivables		1,727,773		
Accrued revenue		14,393,492		
Prepaid expenses 3,082,75				
Deposits 6,462,98				
Investments 35,245,4				
Total current assets140,855,34				
Noncurrent assets				
Land 860,520				
Capital assets, net of depreciation 18,6				
Deposits 846,2				
Total noncurrent assets20,396,92				
Total assets		161,252,270		
LIABILITIES				
Current liabilities				
Accrued cost of electricity		19,679,362		
Accounts payable		1,630,207		
Other accrued liabilities 1,311				
User taxes and energy surcharges due to other governments 670,3				
Total current liabilities 23,291,4				
NET POSITION				

Investment in capital assets	19,550,673
Unrestricted	118,410,144
Total net position	\$ 137,960,817

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION One Month Ended July 31, 2022

OPERATING REVENUES	
Electricity sales, net	\$ 25,326,640
Evergreen electricity premium	 213,766
Total operating revenues	 25,540,406
OPERATING EXPENSES	
Cost of electricity	17,206,502
Contract services	670,244
Staff compensation	549,021
General and administration	194,704
Program rebates and incentives	15,530
Depreciation	 113,272
Total operating expenses	 18,749,273
Operating income (loss)	 6,791,133
NONOPERATING REVENUES (EXPENSES)	
Investment earnings (loss)	51,659
Nonoperating revenues (expenses), net	 51,659
CHANGE IN NET POSITION	6,842,792
Net position at beginning of period	 131,118,025
Net position at end of period	\$ 137,960,817

STATEMENT OF CASH FLOWS One Month Ended July 31, 2022

CASH FLOWS FROM OPERATING ACTIVITIES

Receipts from customers	\$ 20,640,452			
Payments to electricity suppliers	(13,206,900)			
Payments for other goods and services (8)				
Payments for staff compensation (51)				
Tax and surcharge payments to other governments	(313,247)			
Payments for program rebates and incentives	(54,550)			
Net cash provided (used) by operating activities	5,675,943			
CASH FLOWS FROM CAPITAL AND RELATED				
FINANCING ACTIVITIES	(7, 156)			
CASH FLOWS FROM INVESTING ACTIVITIES				
Interest income received	28,759			
Net cash provided (used) by investing activities	28,759			
Net change in cash and cash equivalents	5,697,546			
Cash and cash equivalents at beginning of year 43,10				
Cash and cash equivalents at end of period \$ 48,801,				

STATEMENT OF CASH FLOWS (continued) One Month Ended July 31, 2022

RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES

Operating income (loss) \$ 6,79		
Adjustments to reconcile operating income to net		
cash provided (used) by operating activities:		
Depreciation expense		113,272
Revenue adjusted for provision for uncollectible accounts		547,853
(Increase) decrease in:		
Accounts receivable		(4,794,307)
Other receivables		(104,626)
Accrued revenue		(961,683)
Prepaid expenses		(121,516)
Deposits		(1,000,000)
Increase (decrease) in:		
Accrued cost of electricity		4,032,013
Accounts payable		167,287
Accrued liabilities		1,011,581
User taxes due to other governments		(5,064)
Net cash provided (used) by operating activities	\$	5,675,943

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Sonoma Clean Power

Staff Report - Item 03

То:	Sonoma Clean Power Authority Community Advisory Committee
From:	Neal Reardon, Director of Regulatory Affairs Geof Syphers, Chief Executive Officer
lssue:	Receive Legislative and Regulatory Updates and Provide Feedback as Appropriate
Date:	September 15, 2022

Requested Action

Receive legislative and regulatory updates and provide feedback as appropriate.

Regulatory Updates

PG&E Proposes to Remove Customers from Grid Service

On June 22nd, PG&E submitted Advice Letter 6623-E to the California Public Utilities Commission seeking approval to permanently remove certain customers from the distribution grid. Instead, these customers would receive utility service via a "Remote Grid." In this scenario, the utility would physically remove distribution lines and install onsite generation and/or storage to serve the customer. These customers would continue to receive a PG&E bill as if they remained on the distribution grid. This proposal represents an expansion of the existing Remote Grids program approved by the CPUC, which is limited to 2 MW of total load.

Sonoma Clean Power staff have been collaborating with PG&E on Remote Grid over the past two years based on direction from this Board. However, to date all customers have *voluntarily* agreed to have distribution service permanently removed from their property. SCP's role has been to educate customers about their options, provide feedback on site design, and ensure they're aware of incentives for clean energy technologies through the Advanced Energy Center. The fundamental difference in

PG&E's recent proposal is that the utility would unilaterally determine which customers cannot cost-effectively be served by the grid and would forcibly remove them. The rationale, which the CPUC approved for a voluntary program, is that distribution lines serving some customers are so prone to causing additional fires that servicing the lines is more costly than replacing them with onsite generation.

SCP filed a protest to this Advice Letter on July 12th on multiple grounds. We are concerned about the mandatory nature of PG&E's proposal, which would permanently change the service offered to specific properties. In addition, significant policy questions remain: Would customers receive less reliable service? Would they be served by sources as clean as required by statute? Would CCA revenues continue to be remitted based on current SCP rates?

In response, the CPUC issued a suspension notice of PG&E's Advice Letter. The matter will now be addressed via a Commission Resolution, which SCP staff and other stakeholders will have an opportunity to provide feedback on. SCP staff will return to brief the Board as this develops.

Legislative Update

FEDERAL

Three federal bills (some with multiple iterations) were signed into law over the past year which generally support SCP's core climate objectives. They are:

- 1. The Infrastructure Investment and Jobs Act of 2021
- 2. The Build Back Better Act of 2021
- 3. The Inflation Reduction Act of 2022

Working together, these laws launch a large-scale coordinated approach to nationally address the climate crisis, including funding and rules that help accelerate many of SCP's objectives. Key among these:

Electric Vehicles:

- Restores \$7,500 tax credit for buyers of all makes of EVs at least through 2033
- Provide \$4,000 tax credit for individual buyers of used EVs earning less than \$75,000 per year or families earning less than \$150,000 per year
- Allows an up-front grant of EV tax credits for low-income customers who do not have a sufficient tax bill to take the credits

Home Retrofits & Appliances:

- Provides significant tax credits or up-front discounts for most home electrification projects, with many details about income qualification
- Up to \$2,000 toward heat pump air conditioner/heater
- Up to \$2,000 toward heat pump water heater
- \$600 toward an electric panel upgrade
- \$1,200 toward home weatherization
- \$840 toward induction stoves and also heat pump clothes dryers
- Miscellaneous additional rebates and incentives, including up to \$4,000 toward whole home energy reduction projects

Solar and Batteries:

- Restores the 30% tax credit for rooftop solar power
- Provides a 30% tax credit on home battery storage systems

Commercial-Scale Power & Storage:

- Restores the geothermal tax credit
- Provides tax credits on stand-alone storage for the first time
- Allows a portion of the renewable and storage tax credits to be cashed-out using "Direct Pay" by public agencies
- Provides \$6 billion in subsidies to uneconomic existing nuclear power plants to continue operating (a potential factor in Governor Newsom's effort to keep Diablo Canyon open).
- And many various carbon capture funding streams, which were added to obtain Senator Manchin's vote, likely because they make fossil fueled power plants appear more palatable.

CALIFORNIA

Gavin Newsom announced that Amelia Yana Garcia Gonzalez will serve as California's next Secretary for Environmental Protection after Secretary Jared Blumenfeld steps down in September. Garcia Gonzalez previously served in various leadership roles at CalEPA focused on environmental justice and tribal affairs.

CARB Chair Liane Randolph also announced the appointment of Dr. Steven Cliff as CARB's new Executive Officer. CARB's previous Executive Officer, Richard Corey, retired earlier this summer.

Phasing Out Internal Combustion Vehicles

As part of its "Advanced Clean Cars II" regulations, on August 25 California Air Resources Board (CARB) voted to pass a rule banning the sale of new gasoline-only vehicles by 2035. The rule is aimed at gradually ramping up zero-emission car sales with a requirement that 35% of new vehicles sold in 2026 be zero-emission, with that share increasing each year and culminating in a ban on the sale of new gasoline-only powered vehicles in 2035. The rule has no effect on used cars.

AB 209, SB/AB 179, and AB 211 Budget Jr Energy and Climate Change

The several budget junior bills introduced or modified at the very end of session clarify numerous energy and climate related actions, including:

- \$330M to the CEC for EV charging infrastructure for light duty + trucks and buses
- \$20M to CEC for home EV charging for disadvantaged tenants
- \$178M toward zero emissions heavy trucks and buses through CARB and CEC
- Approximately \$300M toward ZEV equity programs, including Charge Ahead and Clean Cars 4 All
- Provides an intention to fund \$1.3 billion toward ZEV investments next year,\$781 million the following year, and \$384 million the year after that
- Provides funds for Salton Sea area geothermal power and lithium extraction
- Defines criteria by which some new transmission projects for renewable power projects might benefit from a so-called "Climate Catalyst Revolving Loan Fund"

AB 1279 (Muratsuchi) California Climate Crisis Act

Passed to the Governor. Sets policy to achieve net zero greenhouse gas emissions no later than 2045, including ensuring that human-caused greenhouse gas emissions are reduced to at least 85% below the 1990 levels by that date.

AB 2133 (Quirk) Change in GHG Reduction Target

Failed. Would have increased California's greenhouse gas emission reduction target from 40% below the 1990 level to 55% below that level by 2030. However, the bill was defeated on the basis that it had no connection with any current State plans, and came with no analysis of costs.

AB 2316 (Ward) Community Renewable Program

Passed to the Governor. Requires the CPUC to evaluate existing IOU community renewable energy programs and to determine whether those programs should be modified or replaced by new community renewable programs with a more specific focus on serving low-income customers. The bill was opposed by the IOUs, but passed both houses, and now heads to the Governor's desk. It is a little hard to understand the impact of the bill because the CPUC is currently *already* reviewing the IOU community renewable programs with an idea of changing or ending them.

AB 2667 (Friedman) Distributed Energy Resources

Failed to secure the 2/3 majority required in the Senate. This bill would have required the CEC to create incentives for customer-owned energy storage systems that support grid reliability or local reliability through PSPS events. The bill was supported by the Coalition of Utility Employees and opposed by the California Solar and Storage Association, East Bay Community Energy and The Climate Center among others.

SB 846 (Dodd) Extends Diablo Canyon Nuclear Power Plant

Passed and signed into law. Extends the operation of Diablo Canyon Nuclear Power Plant (DCPP) by five years to 2030. Nearly all lawmakers supported the bill on the basis that DCPP is necessary for reliability as the State works to build the baseload renewable power and storage needed. The bill was a compromise between the legislature and Governor Newson, stating a more clear intention for a five year extension to 2030 (as opposed to 5-10 years in the Governor's proposal), and lowering the excess shareholder profits from \$1.8 billion to \$1.4 billion. The urgency bill required a 2/3 majority in both houses. There are many analyses of the bill online, but in short it:

- Extends the operation of DCPP five years through 2030, while leaving the door open for further extensions through action by the legislature. The Governor had asked that further extensions could be approved administratively by the CPUC, but this bill removed that power.
- Provides a \$600 million down payment on a \$1.4 billion forgivable loan to PG&E for repairs and capital expenditures.
- Establishes a \$6.50/MWh ratepayer fee for DCPP's output on all IOU distribution customers across California and an *additional* \$6.50/MWh fee on PG&E distribution customers. All of these fees will be retained as shareholder incentives on top of PG&E's current profits for operating DCPP.
- Exempts all repairs and upgrades on DCPP from CEQA.
- Sets up an expectation of receiving federal funds for extending the life of a nuclear power plant with the proceeds going 90% to offsetting rates and 10% to shareholders.
- Clarifies that DCPP's output cannot be claimed by any load serving entity in Integrated Resource Planning, ostensibly to ensure we all continue to focus on building renewable capacity and storage.
- Gives the CPUC the power to determine how to account for the resource adequacy value of the plant.

SB 884 (McGuire) - Expedited Utility Undergrounding Permitting

Passed to the Governor. SCP worked with the City of Santa Rosa to refine a portion of Senator McGuire's bill on accelerating CPUC permitting of electric undergrounding projects. The refinement removes the explicit advice letter approval process and directs the CPUC to figure out how to best ensure adequate review on costs while delivering an expedited timeline for undergrounding projects.

SB 1020 (Laird) Clean Energy, Jobs and Affordability

Passed to the Governor. The bill is broad, but some of the key elements include:

- Sets interim targets under SB 100 for all electric providers to reach 90% renewable plus carbon-free by the end of 2035 and 95% by the end of 2040.
- Requires State agencies to purchase 100% renewable plus carbon-free energy by the end of 2035.
- Requires the CPUC to establish a definition for "energy affordability" relative to household income, and to use that metric to guide the design of various incentives, rates and programs.
- Direct the Department of Water Resources to buy renewable and carbon free resources, but provides DWR can use fossil resources for this purpose up through 2040 if costs are uneconomic. While this direction is issued, the funding to undertake this procurement was removed from the bill.

SB 1158 (Becker) Hourly Greenhouse Gas Accounting

Passed to the Governor. Starting in 2028, requires power providers to start reporting greenhouse gas emissions from the generation and distribution of electricity in a manner that accounts for the hourly impacts and prevents taking credit for overproducing renewable power during times of day when that energy does not offset the use of fossil resources. After winning considerable improvements to the mechanics of SB 1158 to ensure that storage and baseload renewables are properly credited for their climate benefits, Senator Becker was forced to accept that all the details will be delegated to the CEC. Nevertheless, the bill is still a strong step toward fixing the regulation that allows some power providers to underreport their greenhouse gas emissions.

SB 1432 (Hueso) Resource Adequacy

Passed to the Governor. Requires the CPUC develop a pilot program for aggregated customer-sited distributed energy resources (DER) to assess the value of energy exports from those resources for purposes of fulfilling the requirements of the resource adequacy (RA) program.

Local Actions and Policies

Bans on New Gas Stations Expand

On August 23, Santa Rosa voted to join Petaluma, Sebastopol, Cotati and Rohnert Park in banning the construction of new gasoline fueling stations. Windsor is expected to consider a similar action on September 7.

Attachments

- Letter Re: The Inflation Reduction Act of 2022: Support, available at <u>this link</u> or by request to the Clerk of the Board
- Letter Re: SB 1158: Support as Amended, available at <u>this link</u> or by request to the Clerk of the Board



Staff Report - Item 04

То:	Sonoma Clean Power Authority Community Advisory Committee
From:	Ryan Tracey, Director of Planning & Analytics Geof Syphers, Chief Executive Officer
lssue:	Recommend the Board Authorize the CEO or his Designee to Execute Memorandum of Understanding Agreements with GeoZone Private Partners and Initiate Negotiations of Public-Private Cooperation Agreements

Date: September 15, 2022

Recommended Action

Review and recommend that the Board delegate authority to the Chief Executive Officer or his designee to execute Memorandum of Understanding (MOU) agreements (substantially like the attached documents but subject to revisions approved by the CEO and reviewed by SCP's Special Counsel) and initiate negotiations of cooperation agreements with three private partners having a goal to develop new geothermal capacity in the Geothermal Opportunity Zone (GeoZone). Staff is recommending SCP pursue engaging with three private entities selected through a comprehensive solicitation and evaluation process:

- Eavor Inc.
- Chevron New Energies (CNE)
- Cyrq Energy

The MOUs establish a mutual intent between SCP and private partners to negotiate contractual agreements for developing new local geothermal resources or expanding capacity of existing geothermal resources while also collaborating on opportunities to seek grant funding, resolve technical and commercial uncertainties, and engage local stakeholders. Once negotiated, staff expects the cooperation agreements to commit private partners to develop geothermal resources that are aligned with GeoZone objectives and community needs, and in full compliance with all permitting obligations. In exchange, SCP will provide proactive stakeholder engagement, local political advocacy, serve as an intended customer and support the marketing of any excess

capacity beyond SCP's own needs. Staff will return to the Committee and Board with proposed cooperation agreements for approval as the next step.

Executing MOUs and starting negotiation of commercial agreements is within the authority delegated to the Chief Executive Officer. However, pursuing the proposed GeoZone partnerships is a major strategic decision for the agency. Accordingly, staff is asking the Board to explicitly vote to approve its recommended action.

Background

The Geothermal Opportunity Zone (GeoZone) was established by the SCP Board of Directors and the Boards of Supervisors in Sonoma and Mendocino Counties to explore expanding local geothermal power capacity. The purpose of the GeoZone is to develop the resources necessary to allow SCP to stop relying on natural gas power plants altogether. To that end, the GeoZone is seeking to sustain existing local geothermal production and add 500 MW of new geothermal capacity.

In early 2021, SCP engaged with active private developers and technology companies in the geothermal industry to identify opportunities to reinvigorate local geothermal development. Through this engagement, SCP confirmed its expectation that new technology offers the promise of delivering low-water, low-emission and affordable geothermal at-scale. Feedback from developers flagged common barriers to new development including commercial risk, stakeholder support, transmission, and permitting risks. The GeoZone public-private partnership is designed to proactively address these challenges: SCP offers on-the-ground stakeholder engagement, a commitment to negotiate for the purchase of power, and advocacy on state and local policy in exchange for a developer's commitment to utilize its technology and capital to develop new local geothermal resources that are compatible with GeoZone objectives and community values, and to offer new resources first to SCP.

The GeoZone initiative is inspired by a similar initiative undertaken by the Redwood Coast Energy Authority (RCEA) to mobilize local offshore wind development. RCEA selected private partners in 2018 to move offshore wind development forward. The partnership RCEA developed has been important in building the momentum that offshore wind currently enjoys in California electricity resource planning. Earlier this year, SCP and RCEA executed a Memorandum of Understanding (MOU) to collaborate on enabling development of transformative renewable energy projects along the Northern California. As part of that MOU, SCP and RCEA are sharing best practices in working with private entities on early strategic renewable energy project development, which will inform the development of GeoZone cooperation agreements.

Additional detail on the GeoZone initiative, including links to relevant agreements, the

solicitation protocol, and meetings notes can be found at <u>https://sonomacleanpower.org/geozone</u>.

Stakeholder Engagement

SCP understands that building early local support and responding to stakeholder feedback will be essential to accomplishing the objectives of the GeoZone. SCP endeavors to build resources in the GeoZone that support the community and surrounding environment while also creating new economic opportunity and skilled jobs.

SCP's interest in promoting stakeholder engagement motivated its decision to first ask the County of Sonoma and County of Mendocino to pass resolutions joining the GeoZone before soliciting interest from private industry. After both counties joined the GeoZone, SCP also assembled a group of impacted local agencies to discuss the initiative and respond to their concerns and capture opportunities.

SCP also hosted an in-person stakeholder engagement event on June 28, 2022 at the Advanced Energy Center where finalists from the private partner solicitation presented to representatives of local government, permitting authorities, unions and environmental organizations. SCP staff used feedback from the event to inform its recommendation on partnerships to pursue and published detailed notes from the event at: <u>https://sonomacleanpower.org/</u>

<u>uploads/documents/GeoZone PreProject Stakeholder Input 2022 Jun 28 Summary.</u> <u>pdf</u>

GeoZone projects will be subject to statutory permitting requirements, including compliance with the California Environmental Quality Act (CEQA). Approval of these MOUs is exempt from CEQA, and SCP will be filing a notice of exemption for each MOU if approved by the Board. If any GeoZone project moves forward, appropriate environmental review and public outreach will be conducted.

Private Partner Solicitation

SCP released a Request for Information (RFI) for prospective partners in the GeoZone on March 14, 2022. Responses to the RFI were due on April 29, 2022. A multidiscipline team including staff and experts in geology, air quality, water, geothermal development, business, and engineering completed a detailed review of proposals. A subsequent round of interviews offered the evaluation team the opportunity to ask detailed questions to ascertain technical and financial viability. Ultimately, the evaluation team recommends three finalists to proceed to a final stakeholder engagement round.

The stakeholder engagement round served two important purposes: it provided key stakeholders with an early opportunity to provide feedback on the direction of the GeoZone initiative and allowed SCP staff to gauge the compatibility of proposals with the community and the responsiveness of potential private partners to public feedback. Following the engagement round, staff reconvened the evaluation team to discuss trade-offs between selecting one or more of the finalist proposals.

The three finalist proposals considered by staff for partnership are summarized below:

- **Eavor:** A Canadian geothermal technology company proposed use of its Advanced Closed Loop (ACL) Eavor-Loop technology in the GeoZone. Eavor-Loop involves drilling and connecting two deep multilateral wellbores to circulate fluid through deep granitic base rock. The fluid flows through a heat exchanger at surface connected to a binary power cycle that is also closed-loop with no operational emissions. Eavor's technology can target areas without permeability or water as long as heat and rock conductivity are present.
- **Chevron New Energies (CNE):** A subsidiary of Chevron proposed developing 500-700 MW of new geothermal capacity through a staged development plan including exploration wells, pilots, conventional geothermal projects, and Enhanced Geothermal Systems (EGS) and Advanced Closed Loop (ACL) development. Chevron New Energies plans to deploy its subsurface modeling expertise, well factory approach to cost reductions, financing capability, and California operating experience to achieve GeoZone objectives.
- **Cyrq Energy:** An established geothermal operator and development company in the Western US proposed deployment of thermal storage technology at existing or new geothermal resources at the Geysers. Thermal storage is heated from electric power during hours when the grid has significant solar production, and then the storage is dispatched to superheat the steam of geothermal plants to run the turbines more efficiently and reshape power supply to better match hourly market demand–improving the financial viability and flexibility of geothermal power.

SCP staff and the evaluation team found strong merit and potential risks in all three finalist proposals. Each proposal presented a different approach to meeting GeoZone objectives. Eavor's proposal was specific to a technology that carries less exploration risk and minimizes water use but is still under development. CNE's approach was to adapt the technology and development approach after investing in exploration and pilots, which carries more long-term permitting risk. Cyrq uses proven technology on existing surface equipment but will need to navigate a commercial arrangement with an existing operator at the Geysers.

Given both the strong potential and varying risks between the proposals, SCP staff and the evaluation team believe the best path forward is pursuing partnerships with all three finalists. Proceeding with three parallel approaches to enhancing local geothermal resources offers the best chance at achieving or exceeding the GeoZone objectives. Meanwhile, the need for renewable baseload power in California continues to grow and should all three proposals succeed, SCP is confident there will be a strong market for all of the developed geothermal power.

Next Steps

If the Board approves staff's recommendation to execute MOUs and begin negotiations with the three finalists, SCP will begin negotiating cooperation agreements to establish the roles and responsibilities for each signatory in seeking out opportunities for local geothermal development. Staff will benefit from the agreement RCEA signed with their partners for offshore wind as a guide. As each of these agreements are finalized, staff will return to the Committee for recommendation and the Board for approval. Staff is hopeful that all three agreements can be executed in the next several months.

Meanwhile, SCP will collaborate with each private partner in identifying potential grants, completing early consideration of potential sites, and begin discussions with state regulators and CAISO on transmission considerations for the GeoZone. Staff will continue providing updates to the Committee and Board as these activities progress.

One early target for GeoZone projects is CAISO's next interconnection application queue, which should open in April 2023. Staff is asking private partners to consider completing sufficient technical work to enable interconnection applications for at least demonstration-scale projects within this timeframe.

Attachments

- Memorandum of Understanding Between Sonoma Clean Power Authority and Eavor Inc., available at <u>this link</u> or by request to the Clerk of the Board
- Memorandum of Understanding Between Sonoma Clean Power Authority and Chevron New Energies, available at <u>this link</u> or by request to the Clerk of the Board
- Memorandum of Understanding Between Sonoma Clean Power Authority and Cyrq Energy, available at <u>this link</u> or by request to the Clerk of the Board

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Staff Report - Item 05

То:	Sonoma Clean Power Authority Community Advisory Committee
From:	Ryan Tracey, Director of Planning & Analytics Geof Syphers, Chief Executive Officer
lssue:	Recommend the Board Adopt Staff's Preferred Portfolio for the 2022 Integrated Resource Plan Filing
Date:	September 15, 2022

Recommended Action

Staff requests the Community Advisory Committee (CAC) recommend that the Board adopt staff's preferred portfolio detailed in Table 1 of this report for the 2022 Integrated Resource Plan (IRP) filing required by the California Public Utilities Commission (CPUC).

Background on Integrated Resource Planning

Integrated Resource Plans are utilized by power providers to study and plan for the best way to provide the power resources customers need while integrating that plan with load forecasts and changes in customer-owned resources such as rooftop solar, electric cars and heat pumps. The CPUC process is mostly focused on supply-side resources, but is starting to acknowledge the growing importance of customerowned resources. However, it is valuable to consider the IRP in combination with SCP's Action Plan for Customer Offerings & Incentive Programs to obtain a full picture of how wholesale resources are integrated with customer-owned resources.

As a CPUC-jurisdictional power provider, SCP is required to submit a biennial IRP detailing its preferred supply resources for serving customers while meeting targets for reliability and electricity sector greenhouse gas emissions targets. The CPUC uses filings from power providers to inform its creation of a statewide "preferred system plan" that guides long-term transmission planning. The CPUC also uses the IRP process to identify deficiencies in resources to meet reliability and climate goals, which has led to two procurement orders that have strongly influenced recent procurement priorities for SCP and other power providers.

The CPUC's 2022 IRP filing is due November 1, 2022. As part of the 2022 IRP process, the CPUC is extending their planning horizon from 2030 to 2035 and asking power providers to consider up to two targets for statewide electricity sector emissions: a scenario consistent with the 2020 PSP with emissions dropping to 38 million metric tons of CO₂ (MMT) by 2030 reducing to 30 MMT by 2035 and a more aggressive scenario with emissions dropping to 30 MMT by 2030 reducing to 25 MMT by 2035. For context, California electricity sector emissions peaked at 122 MMT in 2001 and were 59 MMT in 2019.

Summary of Staff's Recommendation

Prior guidance from the SCP Board of Directors included a requirement to study the feasibility and costs for adopting a goal of reaching a zero-carbon portfolio by 2030. SCP staff are proposing adoption of a single preferred portfolio that outperforms the CPUC's target and the SCP Board's zero carbon goal. The proposed portfolio:

- Achieves zero carbon by 2030 at a total bill impact of 2.0% above a minimally compliant portfolio;
- Analyzes greenhouse gas emissions on an hourly basis and while ensuring no credit is taken when natural gas power plants cannot be curtailed (i.e., are already operating at minimum settings);
- Addresses both the near-term summer reliability needs as well as most of the long-term winter reliability needs of SCP customers; and
- Lowers financial exposure to likely new capacity requirements associated with addressing winter reliability concerns starting around 2030.

Background

Staff engaged the Committee, Board, and public in three separate meetings to inform the early development of the 2022 IRP. A key objective in the 2022 IRP cycle was to drive selection of a preferred portfolio that focuses on accomplishing internal objectives in addition to meeting regulatory requirements. This included investing significant resources in standing-up a robust portfolio evaluation tool to quantify the financial risks and trade-offs of different procurement strategies, moving to hourly emissions accounting, and considering customer-owned solutions (aka 'demand-side programs') in concert with the supply portfolio as a tool for decarbonization. Staff has also used the 2022 IRP as an opportunity to align climate objectives with the Regional Climate Protection Agency (RCPA) and their recent Sonoma Climate Mobilization

strategy.

Discussion

Since starting service in 2014, SCP has pursued ambitious environmental targets that put it on the leading edge of driving a transition away from fossil fuels in California's electricity sector. In its portfolio planning, SCP starts by looking at the zero-carbon future and works backwards from that goal to determine the necessary steps to get there. This approach drove SCP's upfront decision to secure a long-term contract from baseload geothermal power at the Geysers, early investments in solar and wind projects, and establishing goals in 2018 to reach 50% renewables by 2020 and to cut emissions to 75 pounds of CO_2 per MWh by 2030.

As intended, other load serving entities (LSEs) have followed SCP's lead, with the state reaching 33.6% renewables and 52.1% carbon free in 2021. Recall that large hydropower is not labelled "renewable" in California, hence the difference between the amount of "renewable" and "carbon free."

Shifting to Hourly Accounting

The "low hanging fruit" in decarbonizing California's grid have largely been picked and mitigating carbon emissions is no longer as easy as building more solar by itself. The California Independent System Operator (CAISO) experienced hours in 2022 where renewables served 99.87% of load and clean resources are increasingly being curtailed.

A decade ago, all new renewable power sources were offsetting emissions from natural gas power plants. But more nuance is required now to make sure that new resources are still effective at achieving that goal. More solar power at noon in May, for example, doesn't help California cut emissions anymore because the fossil power plants are already operating at minimum output. In addition, buying excess solar beyond SCP's own daytime load will have less and less value to the grid and the climate over the coming years.

Evaluating the capability of new resources to displace natural gas emissions now requires an hourly level of granularity rather than the prevailing practice of using annual measurements. This shift helps SCP properly evaluate the climate value of energy storage. While batteries do not generate electricity themselves, they can restore the climate value of new solar power by shifting energy from solar hours to the evening when the least efficient fossil-fueled peaker plants would otherwise run.

Battery storage is good for providing reliability in summer evenings; solar is readily available and can be used to provide cheap charging energy in the daytime and short-duration batteries can be dispatched in the evening. SCP's portfolio includes near-term investments in these types of clean resources as alternatives to natural gas peaker plants for providing summer reliability.

SCP is anticipating the next challenge in decarbonization will be finding resources that can provide reliability in the winter when available solar energy for charging is far less abundant. This challenge is important to solve as building electrification will drive increases in winter energy demand for heating. If clean resources cannot be built to provide winter reliability, California will not be able to retire fossil-fueled combined cycle units that currently provide most of this capability.

In addition, by shifting to hourly accounting six years ahead of State requirements, SCP can encourage other power providers to follow us. Senate Bill 1158 (Becker) was passed to the Governor at end of session this year, and was significantly influenced by SCP to direct the California Energy Commission to develop requirements for hourly greenhouse gas accounting, and to require all power providers to shift their reporting by 2028.

Two New Goals are Proposed

With hourly planning and winter reliability challenges in mind, staff is asking the Board to approve a portfolio that achieves two new environmental performance targets that align with SCP's ambition to lead California's energy transition by example:

- 1. *100% Hourly Carbon Mitigation by 2026:* contract a supply portfolio that mitigates all the hourly marginal emissions associated with SCPA's load within the next four years
- 80% Winter Evening Reliability by 2030: build a portfolio that provides at least
 80% of the required energy from clean resources in winter evenings by 2030

Additional detail on each of these objectives is provided in dedicated sections in the report. This report also included a section discussing the trade-offs in cost, emissions, resource types, reliability, and risks relative to alternative portfolios.

SCP 2022 IRP Preferred Conforming Portfolio

The preferred portfolio that targets the proposed hourly carbon mitigation and winter

reliability metrics and achieves compliance requirements is described in Table 1. The resulting portfolio is optimized to deliver the least cost within certain defined constraints through 2040.

The portfolio recommended by staff for the 2022 IRP builds resources faster than preceding IRP portfolios. The following factors are underlying a change in strategy in addition to the new hourly emission and winter reliability targets:

- **CPUC Procurement Orders:** two procurement orders from the CPUC to maintain system reliability while retiring once-through cooling fossil gas units and Diablo Canyon have placed a strong emphasis on building new resources quickly and have specifically motivated SCP's near-term procurement of storage and geothermal. While Governor's Newsom's push to keep Diablo Canyon running for five extra years was successful, staff believe it is prudent to aggressively build new clean power resources anyway to make a strong case that the nuclear plant should not be further extended past 2030.
- **Energy Market:** long-term projections of pricing for energy, capacity, and volatility have all increased the risk of relying on short-term contracts to serve load and strongly favor building new physical resources under long-term contracts.
- **Analytic Capabilities:** SCP's investment in more sophisticated modeling tools has allowed for a more comprehensive assessment of the full value stream and risk attributes of physical resources and provided staff with more confidence in recommending an aggressive procurement strategy.
- Load Forecast: the preferred portfolio is optimized through 2040, which is ten years past the planning horizon for SCP's prior 2020 IRP and includes high levels of electrification in the transportation and building sectors, driving load up over 34% from today. Note this increase would be even higher, except for expected continued growth of customer-owned solar and modest increases in energy efficiency.
- Voluntary Auction and Market Offer Renewables: the preceding IRP expected up to 20% of load to be served by existing renewable resources in PG&E's portfolio through a proposed voluntary auction process, but following additional contracting details from the CPUC, SCP staff does not believe purchasing these resources is aligned with SCP's risk policy and procurement objectives.

Technology Status Desc		Description		
	Operational	• 70 MW Mustang Solar		
	Operational	 6 MW ProFIT Solar (1 MW x 6 projects) 		
	Under	 70 MW Proxima Solar + 32 MW 4-hr Storage (COD 2024) 		
	Contract	 11.6 MW Tubbs Island Solar + 8 MW 4-hr Storage (COD 2024) 		
Solar		 40 MW Solar + 40 MW 4-hr Storage (COD 2027) 		
oolai		 40 MW Solar + 40 MW 4-hr Storage (COD 2034) 		
	Planned	 50 MW Solar + 50 MW 4-hr Storage (COD 2037) 		
	Tianneu	 50 MW Solar + 50 MW 4-hr Storage (COD 2038) 		
		 50 MW Solar + 50 MW 4-hr Storage (COD 2039) 		
		 40 MW Solar + 40 MW 4-hr Storage (COD 2040) 		
	Operational	 46 MW Golden Hills Wind 		
		 100 MW Out-of-state Wind (COD 2026) 		
Wind		 50 MW In-state Wind (COD 2027) 		
	Planned	 50 MW In-state Wind (COD 2028) 		
		 50 MW In-state Wind (COD 2029) 		
		 30 MW In-state Wind (COD 2038) 		
	Operational	 50 MW Geysers (ends 2026) 		
	Under	 1.52 MW Fish Lake Nevada Geothermal (COD 2024) 		
	Contract	 14 MW Ormat Geothermal Portfolio (COD 2024-2026) 		
		 40 MW Existing Geothermal (starting 2027) 		
Goothormal		 30 MW GeoZone Dispatchable Geothermal (COD 2030) 		
Geotherman		 20 MW GeoZone Dispatchable Geothermal (COD 2032) 		
	Planned	 20 MW GeoZone Dispatchable Geothermal (COD 2033) 		
		 30 MW GeoZone Dispatchable Geothermal (COD 2036) 		
		 40 MW GeoZone Dispatchable Geothermal (COD 2037) 		
		 10 MW GeoZone Dispatchable Geothermal (COD 2038) 		
	Operational	 75 MW Mustang Storage (RA-only) 		
	Under	 8.68 MW Goal Line Long-duration Storage (COD 2025) 		
Standalone	Contract	 8.94 MW Tumbleweed Long-duration Storage (COD 2026) 		
Storage		• 33 MW 4-hr Storage (COD 2025)		
Storage	Planned	 30 MW 4-hr Storage (COD 2027) 		
	Planned	 30 MW Long-duration Storage (COD 2027) 		
		• 20 MW 4-hr Storage (COD 2028)		
		 Ramp-up GridSavvy DR to 5 MW by 2026 and 10 MW by 2030 		
		 Short-term RPS from existing resources through 2029 		
Other		Short-term carbon free from existing resources through 2035		
		 Short-term RA contracts to meet any remaining capacity 		
		obligation		

Table 1. SCP 2022 IRP Preferred Conforming Portfolio Resources ("COD" = Commercial Operation Date)

The cost assumptions used as the basis for the preferred portfolio were finalized in early summer 2022, ahead of the passage of the 2022 Inflation Reduction Act (IRA). Staff is hopeful that tax credit provisions in the IRA will reduce procurement costs and further bolster the proposed strategy to build aggressively. However, short-term supply chain constraints and transmission interconnection backlogs may erode some of the near-term benefits of IRA. In configuring the portfolio, staff imposed a constraint to not include any resources before 2026 that were not either under contract or under negotiation. Setting the expectation that newly negotiated resources will first start coming online in 2027 is realistic and allows time for the current procurement market—which is currently very tight due to the concurrent impacts of procurement orders, supply chain constraints, and interconnection backlogs.

Figure 1 shows the annual generation by source in the recommended portfolio. In the short-term, reductions in system power and biomass are replaced with new solar + storage projects. SCP also continues to execute short-term contracts for existing renewables and hydropower to meet carbon emission mitigation targets. Long-term, SCP reduces its reliance on hydropower and short-term renewables and invests in new out-of-state wind, new in-state wind resources, and local geothermal to serve increased load from electric vehicles and building electrification in its territory. Meanwhile, expanded storage and demand response increase the flexibility of SCP's supply portfolio and reduce reliance on natural gas for capacity.



Figure 1. 2022 IRP Portfolio Annual Generation by Source

The CPUC evaluates environmental performance of IRP portfolios using their Clean System Power calculator. Much like the hourly marginal emissions approach SCP adopted for internal evaluation, the CPUC evaluates each hour of load and supply to determine whether natural gas units are on margin or if renewables are in excess and maybe curtailed. However, unlike SCP's analysis the CPUC allocates emissions from combined heat and power plants and instead of using a marginal emissions factor it discretely forecasts systemwide emissions and allocates must-run emissions by load share. The CPUC outputs the total hourly emissions impact for each year for a given load and supply stack that must be within an LSE's load share of system emissions.

Table 2 below shows the CPUC Calculator's emissions of the preferred portfolio relative to CPUC's targets for SCP. So even with the CPUC's methodology, SCP's recommended portfolio performs extremely well. Given SCP's recommended portfolio outperforms both targets, SCP can submit a single portfolio.

Resource	2030	2035
Recommended Portfolio	0.024	0.040
30 MMT Target	0.331	0.254
25 MMT Target	0.250	0.203

Table 2. CPUC Emissions of 2022 IRP Portfolio vs	. Targets (Million Metric	Tons CO2 per Year,
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A key concern of the CPUC in evaluating portfolios that vastly outperform targets is whether they also are reliable. The recommended portfolio delivers on that front as well: it builds 157% of its CPUC-recommended load share in battery capacity to respond to peak conditions and is much more weighted towards wind and geothermal resources that generate in the evening. Additionally, by emphasizing baseload geothermal power, it addresses current and future reliability problems by ensuring a high degree of renewable power throughout the year.

The portfolio alternatives section later in the report discusses the cost implications of the recommended portfolio compared to alternatives. Requiring 100% hourly emissions mitigation by 2026 and 80% winter reliability in 2030 does result in a cost premium relative to portfolios optimized without these constraints, therefore a key consideration in evaluating staff's recommendation is to test whether that premium is worth it.

Figure 2 shows the average supply cost of the recommended portfolio alongside 20 stochastic¹ portfolios. Staff expects a cost increase in 2025–regardless of the selected portfolio–due to the expiration of an existing hedge. Long-term, the recommended portfolio reduces uncertainty by better aligning the physical supply stack with load. Note that supply costs ("Cost of Energy and Scheduling" in SCP's budget) do not include overhead, programs, and other costs funded by SCP rates. Today, supply costs like those represented in Figure 2 are equivalent to 69% of SCP generation rates or 28% of customers' total bills².

¹ Stochastic modeling is a way of assessing the probabilities of different outcomes while varying assumptions, such as wholesale market prices, weather, and errors in forecasting load.

² Calculated assuming current rates for E-1 customers. The share of total bills is used later in Table 3 to translate supply cost to total bill impact–although differing rate tariffs, CPUC policy, market conditions, and SCP budget priorities may cause these shares to deviate in the future.





100% Hourly Carbon Mitigation by 2026 Target

A key objective for staff in the 2022 IRP process is to assess environmental performance on an hourly basis. As California's renewable power capacity continues to rise, staff recognizes that evaluating the hourly and seasonal generation profile of candidate clean resources is increasingly important to quantifying their ability to displace natural gas. While evaluating hourly mitigated emissions goes beyond current compliance obligation, it is well aligned with the mechanics of the CPUC's Clean System Portfolio Calculator used to estimate the values in Table 2 and is consistent with recent legislation passed to the Governor in SB 1158 (Becker, 2022).

Staff developed a technique for representing the hourly carbon mitigation of different resources in its portfolio optimization. Figure 3 demonstrates the carbon mitigation capability of different generation technologies compared to SCP's load normalized by unit of energy. This graphic demonstrates several important trends influencing staff's IRP analysis:

• The spread of marginal emissions impact between technologies is narrow in the near-term but grows dramatically in the 2030s. This highlights the importance of considering the hourly generation profile in assessing carbon impact as the penetration of renewables grows and highlights the error of valuing each clean megawatt-hour equally. In short, adding renewable energy is no longer the best metric for protecting the climate. Instead, turning down and ultimately closing fossil fuel power plants is the best climate metric.

- Several technologies can mitigate more emissions than incurred by load on a MWh basis (demand response, dispatchable geothermal, and hydro) but have limited availability.
- The marginal emissions mitigated for all technologies decline over time, particularly in the late 2030s as the entire California grid gets cleaner and cleaner. Essentially, there comes a point when there are fewer and fewer fossil fuel power sources left to displace. This means that the marginal emissions impact of load also decreases as we reach to 2045 SB 100 goal of using only renewable power and large hydropower.



Figure 3. Marginal Carbon Emissions Mitigated by Technology per Megawatt-hour

In the recommended portfolio, staff sought to completely offset the hourly marginal emissions impact of load by hourly emissions mitigated by supply in the year 2026 and beyond.

80% Winter Evening Reliability by 2030 Target

A growing concern in SCP's resource portfolio planning is ensuring its supply portfolio provides reliability in the winter–particularly when extending the analysis into the late 2030s as building electrification drives load growth. The battery storage resources currently being deployed for summer reliability are less reliable in the winter, given the frequency of multi-day periods with low solar output to charge the batteries. When reviewing portfolios optimized for supply cost and hourly marginal emissions, staff identified a specific misalignment between supply and load in the winter between the hours of 9pm and 5am.

To explicitly evaluate portfolios for this concern, staff defined a "winter night reliability" metric that is used in portfolio optimization. This metric is calculated as the average output of a resource in December between the hours of 9pm and 5am. Although adding an additional constraint results in portfolios with more apparent cost under current regulations, staff believes that portfolios with higher winter reliability have much less risk in navigating resource adequacy reform to address the winter reliability issue. The recommended portfolio seeks to build a supply stack that can provide 80% of the average load in the winter night evaluation window by 2030.

Portfolio Alternatives & Recommended Portfolio Selection

Staff evaluated four portfolio alternatives before selecting the scenario to submit as its preferred conforming portfolio for the 2022 IRP. Staff started by creating a portfolio optimized for supply cost constrained by minimum compliance requirements for renewable energy and resource adequacy. Staff then studied the Board's requested portfolio to zero-out hourly marginal emissions followed by two different portfolios focused on winter reliability constraints. Table 3 below summarizes the configuration for the four portfolio alternatives and Table 4 documents resulting output metrics. Ultimately, staff selected the "80% Winter Night Reliability by 2030" alternative as the basis for its recommended portfolio. Importantly, this scenario also solves the current summer reliability problems in CAISO and avoids some of the costs of solving the summer and forthcoming winter reliability issues separately.

Staff's optimized portfolio for all four alternatives included aggressive deployment of standalone battery storage with up to 130 MW online by 2028. All four alternatives also sought to build 100 MW of out-of-state wind when it became available in 2026. Both resource types were cost effective without imposing additional emissions and reliability constraints.

The two alternatives without a winter night reliability constraint identified hybrid solar and storage resources as the most cost-effective resource to serve SCP's load, with steady annual deployment up to 352 MW in 2032. The winter night portfolios instead opted to build geothermal and new onshore wind first to gear-up for 2030. Table 3. Configuration of Portfolio Alternatives Considered for 2022 IRP

Portfolio Alternative	Winter Reliability Constraints	Marginal Emissions Constraints	Compliance Constraints
Compliance Baseline	None	None	• 100% RPS for
100% Marginal Emission Mitigation by 2026	None		premium EverGreen product • Greater of 50% or annual RPS compliance % for standard CleanStart product • Capacity to serve 115% of peak monthly load
80% Winter Night Reliability by 2030 (Preferred Portfolio)	Supply portfolio winter night reliability equivalent to 80% of the average load during the same assessment hours by 2030	Supply portfolio provides sufficient hourly marginal emissions mitigation to offset	
100% Winter Night Reliability by 2030	Supply portfolio winter night reliability equivalent to 100% of the average load during the same assessment hours by 2030	of load for years 2026 and beyond	

Several candidate resources were not selected by any of the four candidate portfolios: offshore wind, standalone solar, and non-dispatchable GeoZone geothermal. But while the portfolio optimization did not identify these resources as cost-effective, staff understand that conditions are constantly evolving and will continue to recheck these resources each year.

Figures 4 and 5 compare the expected costs of the four different scenarios through 2040. Staff also used the incremental hourly marginal carbon mitigation and associated cost to assess a carbon abatement cost.

Figure 4. Unit Supply Cost Comparison of Portfolio Alternatives



Figure 5. Net Hourly Marginal Emissions Comparison of Portfolio Alternatives



Table 4. Comparison of Key Metrics for Portfolio Alternatives (2022-2040)

		100% Marginal	80% Winter	100% Winter
		Emissions	Reliability by	Reliability by
Metric	Compliance	Mitigation by	2030	2030
		2026	(Preferred	
			Portfolio)	
Average Annual				
Supply Cost	178.4	182.5	191.2	196.6
(million \$/yr)				
Average Net				
Hourly Marginal				
Carbon	100,041	-41,995	-54,592	-60,705
Emissions				
(mTonne/yr)				
Marginal Carbon				
Abatement Cost	N/A	28.59	692.08	882.59
(\$/mTonne)				
Unit Supply Cost	48.94	70.53	73.00	75 00
(\$/MWh)	00.70	70.55	75.70	75.77
Total Bill				
Premium vs.	N/A	+0.7%	+2.0%	+2.8%
Compliance				
Discounted				
Annual Supply	148 7	152.1	159 1	163.2
Cost (million	140.7	152.1	137.1	100.2
disc. \$/yr)				
Winter Reliability				
(Avg. % of Load	51.6%	62.1%	73.6%	78.4%
Requirement)				

A comparison of metrics supports a strong case for adopting a 100% marginal emission mitigation target. For a 0.7% increase in total bills above the minimum compliance portfolio, SCP is forecast to be able to deliver net negative hourly marginal emissions starting in 2030. The marginal abatement cost of \$28.59/tonne is competitive when comparing carbon mitigation options across sectors. An incremental investment resulting in a 2.0% increase in total bills above the minimum compliance portfolio is expected to allow SCP to adopt an additional winter reliability target, which is key to enabling the full retirement of natural gas resources.

While it is impossible to predict SCP's competitiveness with PG&E bundled rates 8 years in the future, it is reasonable to conclude that an impact of 2% on bills is not going be one of the largest factors in customer costs. All of the following factors could have significantly greater impact on costs:

- Legislative and regulatory decisions relating to Diablo Canyon
- CPUC procurement orders for reliability resources
- Changes in the amount of extra resource adequacy required
- Normal variability in energy markets
- The relative success of the GeoZone and other large-scale procurement

Demand-side Resources and Decarbonization Strategies

In prior public discussions of the IRP, staff stressed the interdependency of SCP's recommended supply resources with demand-side resources and decarbonization strategies supported by SCP programs. Although the CPUC filing is very focused on preferred supply resources, the following aspects of the 2022 IRP that will impact SCP's strategy on customer programs:

• **EV Adoption:** The recommended portfolio includes the resources necessary to enable the aggressive transportation electrification shown in Figure 6. Supporting this trajectory or even one more ambitious is the California Air Resources Board's recent rule banning the sale of gasoline-only vehicles in 2035, so staff will continue to monitor and revisit its projection of EV growth.



Figure 6. SCP Forecast for Light Duty VMT in Region by Fuel Type

Building Electrification: Staff used long-term trends on technology from the 2022 CARB Draft Scoping Plan and local information about SCP's regional building stock, weather and load profiles to forecast the pace of building electrification. Staff is also working with member jurisdictions on building a more robust permitting database to enable more precise tracking. Also, similarly to the project of EV adoption, the projections for the 2022 IRP are likely conservative and will need to be revisited in 2023 due to large incentives now in place through the 2022 Inflation Reduction Act.





- **Behind-the-meter (BTM) Battery Storage:** The recommended portfolio has an aggressive build schedule for battery storage, including 33 MW by 2025 and an additional 30 MW by 2027. Although the evaluation inputs assume this storage is utility-scale, customer-sited storage may be a viable alternative given transmission constraints.
- **Demand Response:** The recommended portfolio ramps GridSavvy demand response up to 5 MW by 2026 and 10 MW by 2030.
- Flexible EV Charging: Staff utilized profiles from the California Energy Commission (CEC) for predicting the hourly charging in the 2022 IRP. The impact of additional load from transportation electrification is enormous and likely to exceed over 200 MW in some hours. Deploying programs, equipment, and incentives to drive charging to occur during hours of energy abundance can have a much larger impact to SCP's supply costs than individual supply decisions discussed in this report. As a result, staff are already working on a proposal to support more regional workplace charging.
- Local Reliability: Although not explicitly discussed in SCP's procurement strategy, staff is also looking for opportunities that can increase the reliability of electric service for customers. Poor electric service reliability can be a large impediment to building and transportation electrification adoption. Staff has identified both storage and local geothermal as opportunities in this realm–particularly if they can also drive upgrades to transmission serving SCP

customers.

Further Study

Staff finalized the input assumptions for the IRP in early summer 2022. Several significantly influential events occurred in the months following staff's analysis: the Inflation Reduction Act, the increasingly likely Diablo Canyon nuclear extension, and the 2035 ban of new gasoline car sales. Given these dynamics, staff plans on revisiting assumptions in portfolio planning and the resulting optimization in early 2023. Any re-optimization will respect the newly proposed 100% hourly carbon mitigation by 2026 and 80% winter reliability metrics if they are endorsed by the Board.

Given the focus of California energy policy on offshore wind, staff also expects to regularly revisit its comparison of offshore wind as a viable resource for serving load compared to opportunities in the GeoZone and additional solar paired with storage. Although SCP's current IRP does not include offshore wind, that result is very sensitive to input cost assumptions that are currently very uncertain.

Staff Presentation

Staff will be providing a presentation during the Committee meeting to walk through key issues discussed in this report. The slides staff will be using for that presentation are included as an attachment for reference.

Attachments

 Slides for Staff Presentation on Preferred Portfolio for SCP 2022 Integrated Resource Plan







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Staff Report - Item 06

То:	Sonoma Clean Power Authority Community Advisory Committee
From:	Geof Syphers, CEO
lssue:	Discuss Future Opportunities for Distributed Renewable and Storage Resources Within the SCP Service Territory
Date:	September 15, 2022

Recommendation

This is a discussion at the request of the Community Advisory Committee on exploring future SCP activities that could further accelerate the development of smallscale 1 to 10 MW solar arrays and storage resources in Sonoma and Mendocino Counties. No action.