BOARD OF DIRECTORS REGULAR MEETING AGENDA

Jefferson Community Center Auditorium
1000 B Street, Eureka, CA 95501

July 27, 2023
Thursday, 3:30 p.m.

Director Myers will attend this meeting via teleconference from the Yurok Tribe’s
Weitchpec Office, 23001 CA-96, Hoopa, CA, 95546.

Any member of the public needing special accommodation to participate in this meeting or access the meeting materials should email LTaketa@redwoodenergy.org or call (707) 269-1700 at least 3 business days before the meeting. Assistive listening devices are available.

Pursuant to Government Code section 54957.5, all writings or documents relating to any item on this agenda which have been provided to a majority of the Board, including those received less than 72 hours prior to the Committee’s meeting, will be made available to the public at www.RedwoodEnergy.org.

NOTE: Speakers wishing to distribute materials to the Board at the meeting, please provide 13 copies to the Board Clerk.

THIS IS A HYBRID IN-PERSON AND VIRTUAL MEETING.

The Board of Directors has returned to in-person hybrid meetings. When attending Board meetings, please socially distance as much as possible and be courteous to those who choose to wear a mask.

To participate in the meeting online, go to https://us02web.zoom.us/j/81972368051. To participate by phone, call (669) 900-6833 or (253) 215-8782. Enter webinar ID: 819 723 68051.

To make a comment during the public comment periods, raise your hand in the online Zoom webinar, or press star (*) 9 on your phone to raise your hand. You will continue to hear the meeting while you wait. When it is your turn to speak, a staff member will unmute your phone or computer. You will have 3 minutes to speak.

You may submit written public comment by email to PublicComment@redwoodenergy.org. Please identify the agenda item number in the subject line. Comments will be included in the meeting record but not read aloud during the meeting.

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

1. ROLL CALL - REMOTE DIRECTOR PARTICIPATION
   1.1. Approve teleconference participation request for this meeting by Director pursuant to Brown Act revisions of AB 2449 due to an emergency circumstance to be briefly described.

2. REPORTS FROM MEMBER ENTITIES

3. ORAL COMMUNICATIONS
   This time is provided for people to address the Board or submit written communications on matters not on the agenda. At the conclusion of all oral communications, the Board may respond to statements. Any request that requires Board action will be set by the Board for a future agenda or referred to staff.

4. CONSENT CALENDAR
   All matters on the Consent Calendar are considered to be routine by the Board and are enacted in one motion. There is no separate discussion of any of these items. If discussion is required, that item is removed from the Consent Calendar and considered separately. At the end of the reading of the Consent Calendar, Board members or members of the public can request that an item be removed for separate discussion.

   4.1 Approve Minutes of June 22, 2023, Board Meeting.
   4.2 Approve Disbursements Report.
   4.3 Accept Financial Reports.
   4.4 Approve Rural REN Portfolio Manager Job Description.

5. REMOVED FROM CONSENT CALENDAR ITEMS
   Items removed from the Consent Calendar will be heard under this section.

COMMUNITY CHOICE ENERGY (CCE) BUSINESS (Confirm CCE Quorum)
Items under this section of the agenda relate to CCE-specific business matters that fall under RCEA’s CCE voting provisions, with only CCE-participating jurisdictions voting on these matters with weighted voting as established in the RCEA joint powers agreement.

6. NEW CCE BUSINESS
   6.1. Solicitation for CPUC-Mandated 2023 Mid-Term Grid Reliability Requirements
   1. Authorize staff to issue the 2023 Mid-Term Reliability Request for Offers.
   2. Establish an ad hoc Board offer review committee and authorize it to take the following actions provided they are consistent with the RFO:
      (i) Approve shortlisted offers,
      (ii) Replace offers on the shortlist as needed, and
      (iii) Approve continued negotiations with a shortlisted respondent in the event their offer materially changes.
   3. Authorize staff to engage with the shortlisted respondents, including execution of exclusivity agreements, collection of shortlist deposits, and negotiation of contract terms, prior to full Board review and approval of resulting contracts.
7. OLD CCE BUSINESS

7.1. Energy Risk Management Quarterly Report


7.2. Annual Report on Humboldt Sawmill Company Memorandum of Understanding (Information only)

7.3. Humboldt’s Electric Future Community Outreach Final Report

Accept final Humboldt’s Electric Future report.

END OF COMMUNITY CHOICE ENERGY (CCE) BUSINESS

8. OLD BUSINESS

8.1. RuralREN Statewide Rural and Hard-to-Reach Energy Efficiency Program Implementation

Approve contract amendment No. 5 with Frontier Energy, Inc. for near-term Regional Energy Network launch regulatory and administrative services, with a not-to-exceed amount of $150,000 and authorize the Executive Director to execute all applicable documents.

9. STAFF REPORTS

9.1 Executive Director’s Report

10. FUTURE AGENDA ITEMS

Any request that requires Board action will be set by the Board for a future agenda or referred to staff.

11. ADJOURNMENT

NEXT REGULAR MEETING
Thursday, August 24, 2023, 3:30 p.m.
Jefferson Community Center Auditorium, 1000 B Street, Eureka, CA 95501.
Online and phone participation will also be possible via Zoom.
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AGENDA

DATE: July 27, 2023

TO: RCEA Board of Directors

FROM: Eileen Verbeck, Deputy Executive Director

SUBJECT: Member Teleconference Participation

BACKGROUND

Since emergency Brown Act meeting law changes went into effect in 2020 due to the COVID-19 public health emergency, the RCEA Board of Directors, Community Advisory Committee and the subcommittees of those bodies met online with no physical, public meeting location. Governor Newsom signed AB 361 into law in September 2021, which allowed these bodies to continue meeting completely virtually without publishing each member’s participation location while the COVID state of emergency continued and state or local officials recommended social distancing measures or the RCEA Board determined that meeting in person posed health and safety risks.

The COVID-19 State of Emergency ended on February 28, 2023, and RCEA Board and CAC meetings returned to meeting in-person at a physical location, with allowances under existing Brown Act rules or new AB 2449 Brown Act rules should a Board or CAC member need to participate from a remote location for certain reasons. If another state of emergency is declared, these bodies may be able to return to completely remote meetings.

SUMMARY

RCEA Board Directors may attend up to two meetings per year from a remote location without making the location accessible to the public for the following reasons:

1. “Just cause”
   a. To provide childcare or caregiving need to a child, parent, grandparent, grandchild, sibling, spouse, or domestic partner;
   b. Due to a contagious illness that prevents the member from attending in-person;
   c. Due to a need related to a physical or mental disability as defined in Government Code sections 12926 and 12926.1 not otherwise accommodated; and
   d. Due to travel while on official business of the legislative body or another state or local agency.

2. “Emergency circumstance” due to a physical or family medical emergency that prevents the member from attending in person.

If a Board Director would like to attend the meeting remotely due to an emergency circumstance, the Board will take action by majority vote to approve the Director’s remote participation. A vote is not necessary for a request to attend remotely for just cause. A brief
description, protecting the Director’s (or Director’s family member’s) medical privacy, needs to be provided in both cases.

The remotely participating Board Director needs to publicly disclose at the meeting before any action (vote) is taken, whether anyone 18 years of age or older is present in the room at the remote location with the Director, and the general nature of the individual’s relationship with the Director.

If the Board Director anticipates needing to participate remotely for more than 2 meetings per year, staff recommends arranging for a publicly and ADA accessible space with visual and audio meeting capabilities from which to participate.

Staff asks to be notified one-week in advance, if possible, of remote meeting attendance so the Director’s publicly and ADA accessible remote meeting address can be published in the agenda, if required per Brown Act open meeting laws.

Current Remote Participation Requests

As of the writing of this staff report, there are no requests for “just cause” or “emergency circumstances” remote director participation.

RECOMMENDED ACTION (if needed)

Approve teleconference participation request for this meeting by Director pursuant to Brown Act revisions of AB 2449 due to an emergency circumstance to be briefly described.
Chair Sheri Woo called a regular meeting of the Board of Directors of the Redwood Coast Energy Authority to order on the above date at 3:32 p.m. Notice of this meeting was posted on June 16, 2023.


STAFF AND OTHERS PRESENT: General Counsel Nancy Diamond; Power Resources Director Richard Engel; Demand-Side Management Director Stephen Kullmann; Executive Director Matthew Marshall; County of Humboldt Supervising Planner Michael Richardson; Community Strategies Manager Nancy Stephenson; Board Clerk Lori Taketa;

REMOTE DIRECTION PARTICIPATION
General Counsel Diamond reviewed Brown Act open meeting remote participation rules and reminded the Board to refrain from texting during meetings to maintain transparency. Chair Woo requested and obtained agreement from the growing Board to follow Rosenburg’s Rules of Order more closely to streamline meeting discussion.

REPORTS FROM MEMBER ENTITIES / ORAL COMMUNICATIONS
Chair Woo reported that the Humboldt Bay Municipal Water District now runs on 100% solar electricity, and that the Ruth Lake hydropower plant has been unable to connect to the grid and generate income for the agency for over a month due to a substation failure at Low Gap. PG&E has not indicated when the substation will be repaired.

Member of the public Jesse Noell submitted written comment in support of rooftop solar electricity and of considering the impact costs of other forms of utility scale solar energy. No other public comments were presented at the meeting.

CONSENT CALENDAR
4.1 Approve Minutes of May 25, 2023, Board Meeting.
4.2 Approve Disbursements Report.
4.3 Accept Financial Reports.
4.4 Authorize the Executive Director to Contact Any or All Banking Services that RCEA Currently Uses or Will Use in the Future and Request They Stop Funding Fossil Fuel Expansion and Support Transitioning to Clean, Efficient and Renewable Energy Sources.
Member of the public J.A. Savage submitted written comment on item 4.4 in support of RCEA doing business with more responsible banking institutions than Wells Fargo or First Republic. No director nor member of the public requested items be removed from the consent calendar.

**M/S: Arroyo, Schaefer: Approve Consent Calendar items.**


**OLD BUSINESS**

6.1 Climate Action Plan Update (Information only)

Executive Director Matthews described RCEA’s participation in the countywide climate action planning process. Humboldt County Supervising Planner Richardson reported on the regional approach to reduce greenhouse gas emissions throughout Humboldt County. The project is at the Environmental Impact Report preparation phase, after which the County and all jurisdictions within the County will enter the adoption and implementation phases. The goal is for all jurisdictions to adopt the Climate Action Plan by April 2024.

The community will have opportunities to comment on the draft EIR from July through December 2023, and on the final EIR in January and February 2024. Comments need not be limited to the EIR and can include input on implementation measures and targets. The Community Advisory Committee formed a Climate Action Plan Outreach Subcommittee to assist the cities and county with public engagement after the notice of EIR preparation is issued.

Currently there is debate about including GHG reductions from regional large industry loss in reduction calculations. Doing so would make achieving the 2030 goal of a 40% GHG reduction from 1990 levels achievable with little effort but would make reaching the 2045 statewide goal of 100% carbon emissions offset through reductions extremely difficult. There was no public comment on this agenda item.

6.2 Rural REN Update (Information only)

Demand-Side Management Director Stephen Kullmann reported that the California Public Utilities Commission is expected to give final approval for the proposed RuralREN statewide rural and hard-to-reach energy efficiency program this month. Director Kullmann described the RuralREN’s vision of making GHG-reducing energy efficiency programs as accessible for rural customers as they are for urban ratepayers. RuralREN programs will serve almost half the geographic area of the state. People to be served include residents of 66 California Tribal territories. Over 90% of RuralREN’s service area is designated as low-income.

Director Kullmann described RuralREN’s governance model and services, which may include providing rebates for and installation of energy efficient systems, and bridge loans for residential, business and public agency efficiency measures. Other RuralREN programs will address helping jurisdictions and contractors comply with reach codes, and workforce training. The Directors praised staff for playing a leadership role, coordinating with other rural communities, and for highlighting tribal organization participation.
NEW BUSINESS
7.1 Fiscal Year 2023-2024 Proposed Budget

Executive Director Marshall presented the revised proposed budget. The largest adjustment was to wholesale power costs, which were reduced by $2.6 million after the Board adopted revised 2023 procurement targets at the May Board meeting. RuralREN program budget amounts have not been changed as final CPUC approval has not yet happened and is anticipated to take place on June 29. Staff reminded the Directors that 2024 power procurement forecasts, which will take place in the second half of the fiscal year, are uncertain and may be affected by Sandrini solar project delay damage payments. There was no public comment on this item.

M/S: Schaefer, Mobley: Adopt the proposed RCEA Fiscal Year 2023-24 Budget.


STAFF REPORTS
8.1 Executive Director’s Report

Executive Director Marshall reported that USDA rural electric utility low-interest loans, the same loan program that financed the Airport Microgrid project, have been enhanced for renewable energy projects such as solar or solar and storage system deployment. These projects are now eligible for 40 to 60% loan forgiveness plus 30% in direct pay provisions, depending on whether the project serves Tribes or is developed by non-taxed entities. Staff will submit concept papers for many local projects and the Directors expressed support for this effort. There were no public comments on this agenda item.

FUTURE AGENDA ITEMS
Director Arroyo requested a report on projects for which RCEA is applying for USDA loans. There were no future agenda item requests from the public.

CLOSED SESSION
10.1 CONFERENCE WITH REAL PROPERTY NEGOTIATIONS Pursuant to Government Code § 54956.8 in re: APN 001-131-007; RCEA negotiator: Executive Director; Owner’s negotiating party: Greg Casagrande; Under negotiation: price and terms.

There were no public comments for this closed session item. The Board adjourned to closed session at 5:05 p.m. and reconvened in open session at 5:36 p.m. Chair Woo stated there was nothing to report out from the closed session and adjourned the meeting at 5:37 p.m.

Lori Taketa
Clerk of the Board
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## Redwood Coast Energy Authority
### Disbursements Report
**As of May 31, 2023**

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# Redwood Coast Energy Authority
## Disbursements Report
### As of May 31, 2023

<table>
<thead>
<tr>
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<th>Date</th>
<th>Num</th>
<th>Name</th>
<th>Memo</th>
<th>Amount</th>
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</tbody>
</table>
### Redwood Coast Energy Authority

**Disbursements Report**

**As of May 31, 2023**

<table>
<thead>
<tr>
<th>Type</th>
<th>Date</th>
<th>Num</th>
<th>Name</th>
<th>Memo</th>
<th>Amount</th>
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**TOTAL** -1,764,057.69
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## Redwood Coast Energy Authority
### Profit & Loss Budget vs. Actual
### July 2022 through May 2023

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<th>Ordinary Income/Expense</th>
<th>Jul ’22 - May 23</th>
<th>Budget</th>
<th>% of Budget</th>
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<td>5400 · Revenue - nongovernment agencies</td>
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<td>Total 5 REVENUE EARNED</td>
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<tr>
<td>8.2 COMMUNICATIONS AND OUTREACH</td>
<td>103,338.31</td>
<td>177,004.00</td>
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<tr>
<td>8.4 PROFESSIONAL &amp; PROGRAM SRVS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8400 · Regulatory</td>
<td>127,558.83</td>
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<tr>
<td>8410 · Contracts - Program Related Ser</td>
<td>138,108.23</td>
<td>290,000.00</td>
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<tr>
<td>8420 · Accounting</td>
<td>30,043.50</td>
<td>87,455.00</td>
<td>34.35%</td>
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<tr>
<td>8430 · Legal</td>
<td>160,853.02</td>
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<tr>
<td>8450 · Wholesale Services - TEA</td>
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<td>8460 · Procurement Credit - TEA</td>
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<td>8470 · Data Management - Calpine</td>
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<td>Total 8.4 PROFESSIONAL &amp; PROGRAM SRVS</td>
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<td>8.5 PROGRAM EXPENSES</td>
<td>586,016.96</td>
<td>638,100.00</td>
<td>91.84%</td>
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<tr>
<td>8.6 INCENTIVES &amp; REBATES</td>
<td>541,350.13</td>
<td>577,823.00</td>
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<tr>
<td>Total 9 NON OPERATING COSTS</td>
<td>226,285.20</td>
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<td>Total Expense</td>
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<tr>
<td><strong>Net Ordinary Income</strong></td>
<td>13,514,626.86</td>
<td>16,344,137.00</td>
<td>82.69%</td>
</tr>
<tr>
<td><strong>Net Income</strong></td>
<td>13,514,626.86</td>
<td>16,344,137.00</td>
<td>82.69%</td>
</tr>
</tbody>
</table>
### Redwood Coast Energy Authority

**Balance Sheet**

As of May 31, 2023

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>May 31, 23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
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<tr>
<td>Checking/Savings</td>
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<tr>
<td>1010 · Petty Cash</td>
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<td>1050 · GRANTS &amp; DONATIONS 3840</td>
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<td>1060 · Umpqua Checking Acct 0560</td>
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<td>1076 · First Republic Bank - 4999</td>
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<td>8413 · COUNTY TREASURY 3839</td>
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<tr>
<td><strong>Total Checking/Savings</strong></td>
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<tr>
<td><strong>Total Accounts Receivable</strong></td>
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<td><strong>Other Current Assets</strong></td>
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<tr>
<td>1101 · Allowance for Doubtful Accounts</td>
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<tr>
<td>1103 · Accounts Receivable-Other</td>
<td>14,414,810.38</td>
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<tr>
<td>1120 · Inventory Asset</td>
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<tr>
<td>1202 · Prepaid Expenses</td>
<td>-15,265.47</td>
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<td>1205 · Prepaid Insurance</td>
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<td>1210 · Retentions Receivable</td>
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<td>1499 · Undeposited Funds</td>
<td>1,403.00</td>
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<td><strong>Total Other Current Assets</strong></td>
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<td><strong>Total Current Assets</strong></td>
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<td><strong>Total Fixed Assets</strong></td>
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<td><strong>Other Assets</strong></td>
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<tr>
<td>1700 · Security Deposits</td>
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<td><strong>Total Other Assets</strong></td>
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</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td><strong>35,052,490.32</strong></td>
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</table>

<table>
<thead>
<tr>
<th>LIABILITIES &amp; EQUITY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities</td>
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</tr>
<tr>
<td>Total Accounts Payable</td>
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<td>Total Credit Cards</td>
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<td>Other Current Liabilities</td>
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<td>2002 · Deposits Refundable</td>
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<td>2013 · Unearned Revenue - PA 2020-2023</td>
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<td><strong>Total 2100 · Payroll Liabilities</strong></td>
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<td>Total Other Current Liabilities</td>
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<td><strong>Total Current Liabilities</strong></td>
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<td>Long Term Liabilities</td>
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<td>Total 2700 · Long-Term Debt</td>
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<tr>
<td><strong>Total Long Term Liabilities</strong></td>
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<tr>
<td><strong>Total Liabilities</strong></td>
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<tr>
<td><strong>Equity</strong></td>
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<tr>
<td>2320 · Investment in Capital Assets</td>
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<tr>
<td>3900 · Fund Balance</td>
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<td>Net Income</td>
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<tr>
<td><strong>Total Equity</strong></td>
<td><strong>23,100,970.28</strong></td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES &amp; EQUITY</strong></td>
<td><strong>35,052,490.32</strong></td>
</tr>
</tbody>
</table>
BACKGROUND

In anticipation of a CPUC decision regarding the funding of a Rural Regional Energy Network (REN), the RCEA Board of Directors approved the addition of a full-time Rural REN Portfolio Manager, Rural REN Technician, and a Rural REN Specialist at the May 2023 Board meeting. On June 29, 2023, the CPUC approved the formation of a Rural REN and committed more than $177 million over an eight-year period. RCEA will be the program administrator for the program.

Prior to advertising the Rural REN Portfolio Manager position, staff evaluated whether the general Program/Project Manager job description would be appropriate for this position. During this review it was determined that it was more appropriate to create a job description specific to the role of Rural REN Portfolio manager.

Staff are currently evaluating the job duties of the additional Rural REN staff and comparing those with RCEA’s existing job descriptions to evaluate whether any other new job descriptions need to be created. Staff will bring forward any proposed new job descriptions for Board approval later in 2023.

FINANCIAL IMPACT

RCEA will receive 10% of the total Rural REN budget for administrative functions. This CPUC funding will cover personnel costs associated with the Rural REN Portfolio Manager, Specialist and Technician. The fiscal year 2023-2024 budget included funds for these three positions.

STAFF RECOMMENDATION

Approve Rural REN Portfolio Manager Job Description.

ATTACHMENTS

Proposed Rural REN Portfolio Manager job description

Adopted RCEA Organization Chart approved May 25, 2023
Manager/Senior Manager – RuralREN Portfolio Manager

General Class Description: Under general direction of a Director, a Manager assists in planning, organizing, coordinating, and managing programs or activities of their associated department; provides professional assistance to staff; performs related work as assigned. This class has lead responsibility for planning and implementation for one or more programs or functional areas. A Manager is responsible for accomplishing program goals and objectives, and directs the day-to-day operations and activities of their designated program or functional area within a department. A Manager works with their Director to ensure consistent and efficient implementation of agency operational policies and long-term operational excellence. This position class is distinguished by complex and widely-scoped duties related to program and project management, subject-matter expertise, and may include supervisorial responsibility. This position exercises considerable discretion and independent judgment in the coordination and prioritization of duties and responsibilities assigned, and in acting on behalf of the department Director in their absence.

Summary

The Rural Regional Energy Network (RuralREN) is a multi-agency collaboration to implement ratepayer-funded energy efficiency programs throughout rural regions of California. The RuralREN Portfolio Manager works under general direction of the Director of Demand Side Management and has responsibility for a wide range of matters related to RCEA’s role as Program Administrator of the RuralREN. The RuralREN Portfolio Manager interacts with the California Public Utilities Commission (CPUC) and the RuralREN Leadership Team and Committees to ensure all program requirements are met. The RuralREN Portfolio Manager tracks budgets and metrics and collaborates with RCEA’s Administrative Department to process payments to partner agencies, subcontractors, and consultants. The RuralREN Portfolio Manager works closely with the Director of Demand Side Management to track and accomplish all workflows relating to the administration of the RuralREN. The RuralREN Portfolio Manager supervises other RuralREN Administrative staff. The RuralREN Portfolio Manager does not participate in local implementation of RuralREN or other Demand Side Management programs and projects.

Essential Functions and Responsibilities

Duties are illustrative and may vary. Other duties may be assigned.

- Manage RuralREN administrative, marketing, and evaluation, measurement, and verification (EM&V) activities and associated budgets.
- Establish, manage, and administer overall RuralREN budget, including shifting funds between programs and Implementing Agencies.
- Coordinate with CPUC Energy Division staff and file required regulatory submissions and reports to the CPUC.
- Coordinate, collaborate, and network with state agencies, other program administrators, and working groups that impact RuralREN or energy efficiency programs.
- Establish, manage, oversee, and administer procurement and contracts for RuralREN Program implementation and enterprise-level business administration.
- Seek input from Leadership Team related to budget, program design, operational processes, and any other portfolio-level activities, as needed.
- Support the ongoing implementation of RCEA’s Racial Justice Plan and actively engage in justice, equity, diversity, and inclusion efforts within the organization.
- Supervise RuralREN Administrative staff.
- Travel within California to meet with RuralREN partners and CPUC staff.
Duties are illustrative only and may vary. Other duties may be assigned.

**Minimum Qualifications**

**Experience/Education:**

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

- Education or experience equivalent to a bachelor's degree or greater in management, engineering, environmental sciences, or a closely related field.
- A minimum of 5 years (7 years for Senior Manager designation) of increasingly responsible project management experience, preferably energy project management.
- Experience in supervisory responsibility, preferably for a staff delivering a variety of products and services for a diverse audience and using a range of program design, technologies, and supply and delivery channels.

**Knowledge of:**

- Energy technologies, principles of energy management, usage, efficiency, and conservation.
- Local and state level energy policy and goals.
- Meeting facilitation and consensus building.
- CPUC reporting procedures and platforms, including CEDARs.
- Database and computing platforms, including SalesForce, MS Office 360, SharePoint.
- Data security protocols and principles of information technology.
- Principles and methods of program development, implementation, and project management.

**Ability to:**

- Monitor, evaluate, and ensure compliance with program goals.
- Effectively manage subcontractors.
- Facilitate teamwork by supporting and collaborating with staff.
- Prepare accurate, comprehensive, and timely reporting and other deliverables as required.
- Assist with program development and design, including needs assessments, drafting proposals, preparing marketing tools, evaluation, and reporting.
- Learn, interpret, and apply policies, procedures, and regulations; and to provide program-based guidance and interpretation for staff and the public.
- Assist with administration of program budgets, including control and monitoring of program related expenditures.
- Establish and maintain effective relationships with diverse community stakeholders.
- Identify and solve problems effectively and expeditiously.
- Direct, supervise, and coordinate the work of assigned staff.
- Manage multiple priorities, meet deadlines, and quickly adapt to changing priorities in a fast-paced dynamic environment.
- Work well under pressure.
- Be thorough and detail oriented.
- Demonstrate patience, tact, teamwork and commitment to superior service and performance.
- Communicate effectively verbally, in writing, and through presentations.

**Working Conditions and Essential Requirements**
The physical demands described here are representative of those required for the position. Position requires sitting, walking, standing, bending, and twisting in the performance of daily activities. The position requires hand manipulation and repetitive hand movement and fine coordination in using a computer keyboard and other office equipment. The position requires near and far vision in reading reports and use of a computer. Acute hearing is required in supporting meetings and providing phone and in-person customer service. Fine and gross motor control is required to set up and operate diagnostic and data collection equipment in a variety of settings. The position will require travel to locations throughout California to meet with stakeholders. RCEA will make reasonable accommodation of the known physical or mental limitations of a qualified applicant with a disability upon request. Possession and continued maintenance of a valid class C California driver’s license or the ability to provide alternate transportation and a safe driving record is required.

Preferred Qualifications

- Master’s degree in a related field.
- Knowledge of RCEA programs.
- Knowledge of CPUC energy efficiency programs.
- Prior experience managing subcontractors.
- Prior experience working with public agencies.
- Experience working with organizations involved with projects and programs in the areas of environmental and economic development.
- Experience working in an entrepreneurial context.

THE REDWOOD COAST ENERGY AUTHORITY IS COMMITTED TO A DIVERSE WORKFORCE AND IS AN EQUAL OPPORTUNITY EMPLOYER. RCEA MAINTAINS AND PROMOTES A POLICY OF NONDISCRIMINATION AND NONHARASSMENT ON THE BASIS OF RACE, RELIGION, COLOR, SEX, AGE, HANDICAP, MARITAL STATUS, SEXUAL ORIENTATION, AND NATIONAL ORIGIN OR GENETIC CHARACTERISTIC.
*Executive Director may approve the hiring of part-time, intern and limited-term positions if they fit within the Board adopted total personnel budget.
AGENDA DATE: July 27, 2023
TO: Board of Directors
PREPARED BY: Jocelyn Gwynn, Senior Power Resources Manager
SUBJECT: 2023 Mid-Term Reliability Request for Offers

BACKGROUND

To date, RCEA has issued three solicitations in response to the California Public Utilities Commission’s (CPUC) Decision 21-06-035 to address the mid-term reliability (MTR) needs of the state’s electric grid in 2023-2026. This decision requires each load-serving entity (LSE) in California, including RCEA, to procure its allocated share of new or incremental capacity. Earlier this year, the CPUC issued a second MTR Decision 23-02-040, which pushed out the 2026 obligation to 2028 and set forth additional obligations for 2026-2027. RCEA’s cumulative MTR obligation pursuant to both these decisions is 53 MW of new net qualifying capacity1 (NQC) online from 2023 to 2028. The table in section 4.3 of the attached RFO protocol contains a breakdown of this obligation by year, excluding RCEA’s 7 MW long-lead time resource obligation in 2028, which has already been procured via RCEA’s participation in California Community Power’s joint procurements of geothermal power and long-duration storage.

RCEA’s 2021 MTR solicitation led to contracts for the local Fairhaven Energy Storage and Foster Clean Power A projects, which were approved by the Board in June and September 2022, respectively. The subsequent solicitations in 2022 and 2023 did not result in any additional contracts as they did not yield any viable eligible offers. RCEA still has outstanding procurement obligations in 2025, 2026 and 2027 for which it is seeking contracts to fulfill.

SUMMARY

Staff propose to issue another request for offers (RFO) in hopes of completing RCEA’s MTR procurement. The draft solicitation protocol is attached. All other solicitation materials will be substantively the same as the February 2023 RFO for Zero Emission Resources, available on RCEA’s website. The terms and conditions of the solicitation are the same as what the Board approved in February with the exception of the following changes:

1. Inclusion of RCEA’s additional procurement obligations per Decision 23-02-040;

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1 Net qualifying capacity is the unit of resource adequacy, which represents the portion of a power plant’s capacity that can deliver energy during peak demand hours, thereby contributing to grid reliability.
2. Extension of the eligible commercial operation deadline to June 2027;
3. Allowance of standalone energy storage and resource adequacy-only offers; and
4. Adjustment of the evaluation structure to allow multiple, periodic reviews of submitted offers by staff and subsequent shortlisting by the Board ad hoc committee over a longer open period.

The purpose of restructuring the evaluation and selection process is to allow more flexibility for staff to move forward with attractive offers shortly after receiving them, thereby preventing losing viable projects to other buyers, as has happened in the past and is all too common in today’s sellers’ market. The purpose of the extended review period is to complete RCEA’s MTR procurement without coming back to the Board every few months to obtain approval for solicitation issuance, given the objectives, terms and conditions are largely unchanged. Staff propose to keep the solicitation open for the next two years, with the ability to close the solicitation sooner at staff’s discretion once RCEA’s MTR obligations are met.

As with the last solicitation, staff are proposing the Board delegate shortlisting authority to an ad hoc offer review committee to authorize contract negotiations. All final contracts will be brought to the full Board for approval at any time during or after the solicitation’s open period.

ALIGNMENT WITH RCEA’S STRATEGIC PLAN

If successful, this solicitation will result in new clean energy projects that will contribute to the following goals:

- 4.1.2 Minimize Greenhouse Gas Emissions Associated with RCEA’s CCE Program.
- 4.1.4 Maximize Renewable Energy Content of RCEA’s CCE Program.
- 4.1.8.1 Support Utility Scale Solar Energy Development.

EQUITY IMPACTS

As with all RCEA’s power solicitations, the RFO will encourage potential respondents who may qualify as a diverse business enterprise under the CPUC’s Supplier Diversity Program to sign up for certification through the program clearinghouse.

Additionally, respondents will be asked to report any non-energy benefits of their project in relation to Disadvantaged Communities, labor and workforce, and community engagement, and their answers will be factored into the offer evaluation.

FINANCIAL IMPACT

In addition to meeting the CPUC’s MTR compliance requirement described above, any capacity procured through this solicitation will count toward RCEA’s normal energy, capacity, and environmental attribute procurement obligations and goals. It is likely there will be no additional financial impact of the resultant contracts above that normally incurred through procurement of these required products, and there could potentially be some cost savings from locking in long-term fixed pricing. To the extent that the products are offered at above-market rates, RCEA will
evaluate the project benefits and avoided non-compliance penalties that may outweigh the additional cost.

**STAFF RECOMMENDATION**

1. **Authorise staff to issue the 2023 Mid-Term Reliability Request for Offers.**
2. **Establish an ad hoc Board offer review committee and authorise it to take the following actions provided they are consistent with the RFO:** (i) approve shortlisted offers, (ii) replace offers on the shortlist as needed, and (iii) approve continued negotiations with a shortlisted respondent in the event their offer materially changes.
3. **Authorise staff to engage with the shortlisted respondents, including execution of exclusivity agreements, collection of shortlist deposits, and negotiation of contract terms, prior to full Board review and approval of resulting contracts.**

**ATTACHMENTS**

2023 Mid-Term Reliability Request for Offers Protocol
RFO-23-401

REQUEST FOR OFFERS

FOR

MID-TERM RELIABILITY RESOURCES

COMPLIANT WITH CALIFORNIA PUBLIC UTILITIES COMMISSION’S MID-TERM RELIABILITY DECISIONS 21-06-035 and 23-02-040

Redwood Coast Energy Authority

www.RedwoodEnergy.org

Issuance Date: August 1, 2023
First Review Date: August 15, 2023
Closure Date: no later than August 1, 2025
Submit offers to

procurement@redwoodenergy.org
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1 **BACKGROUND & OBJECTIVE**

Redwood Coast Energy Authority (RCEA) is a local government Joint Powers Authority founded in 2003 whose members include the County of Humboldt, the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad, and the Humboldt Bay Municipal Water District. RCEA develops and implements sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient and renewable resources. RCEA has been providing electric power generation service to its member jurisdictions as a community choice aggregator (CCA) since 2017, and thus is subject to the legislative and regulatory requirements imposed on load serving entities (LSE) within the state of California.

In 2020, RCEA’s Board of Directors adopted a resolution1 to procure 100% carbon-free and renewable energy on an annual basis by 2025. Additionally, RCEA’s RePower Comprehensive Action Plan for Energy2 (“Strategic Plan”) calls for the development of new power resources within RCEA’s service area to achieve 100% local renewable energy by 2030. Pursuant to its Strategic Plan, RCEA strives to source as much of its power procurement from local projects as possible.

Through the Integrated Resource Planning (IRP) proceeding, the California Public Utilities Commission (CPUC) has identified the need for additional zero-emitting energy resources and firm capacity to support grid reliability. CPUC issued its Decision 21-06-0353 Requiring Procurement to Address Mid-Term Reliability in June 2021 and its Decision 23-02-0404 Ordering Supplemental Mid-Term Reliability Procurement in February 2023 (“MTR Decisions”). The MTR Decisions mandate CPUC-jurisdictional LSEs to procure and/or develop a collective 15,500 MW of incremental net qualifying capacity (NQC) to be operational from 2023 to 2028.

RCEA seeks offers for new or incremental capacity that can deliver resource adequacy (RA) to further its contributions to grid reliability in California, and to fulfill its procurement obligations pursuant to the MTR Decisions and RCEA’s Board-adopted goals, as described above. Respondents will provide complete offers per the guidelines below. RCEA intends to execute one or more power purchase agreements with qualified offerors whose projects are selected and approved by the RCEA Board of Directors.

2 **ELIGIBILITY SPECIFICATIONS**

2.1 **Mandatory Criteria**

To be eligible for consideration under this RFO, offered projects must meet the following requirements:

**Term:** Available to contract with RCEA for at least 10 years.

**COD:** Able to achieve commercial operation by June 1, 2027 at the latest.

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3 [https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K603/389603637.PDF](https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K603/389603637.PDF)

4 [https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M502/K956/502956567.PDF](https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M502/K956/502956567.PDF)
**Incrementality:** Excluded from the baseline list of resources associated with the CPUC Decision\(^5\).

**Deliverability:** Qualified or on track to achieve Full or Partial Capacity Deliverability Status (FCDS/PCDS) by the commercial operation date; Energy-Only Deliverability Status is allowed for the generator if contractually paired with FCDS storage.

**Location:** Within the California Independent System Operator (CAISO) or dynamically transferred or pseudo tied to CAISO.

**Product Characteristics:** Able to supply either 1) bundled energy, RA and RECs, 2) full toll energy storage, or 3) RA only, from one of the following resource types.

i. PCC1 RPS-eligible generation (standalone solar and wind are ineligible);

ii. PCC1 RPS-eligible generation paired with hybrid, co-located or contractually paired energy storage;

iii. Standalone energy storage;

iv. Large hydropower carbon-free generation.

### 2.2 PREFERRED CRITERIA

**Term:** RCEA has a strong preference for contract terms of 20 years or less.

**Dispatchability:** Resources that can supply continuous power from 5:00 pm to 10:00 pm daily are preferred, to comply with the MTR Decision’s Diablo Canyon replacement obligation.

**Location:** RCEA’s descending order of locational preference is as follows.

1. Humboldt Local Capacity Area
2. Northern California
3. Southern California
4. Outside of California

**Development Progress:** Given both the short timeline and risk of project delays and/or non-approvals, RCEA prefers projects that have already achieved the following development milestones.

1. Site control secured for the duration of the offered term. Respondents will be required to demonstrate site control prior to executing a power purchase agreement (PPA) with RCEA;
2. Land use and building permits granted from the governmental authority having jurisdiction;
3. Interconnection agreement fully executed with the transmission and/or distribution operator; and
4. Financing secured for the offered project or viable financing plan in place.

### 2.3 PRODUCTS & CAPACITY

RCEA seeks to procure bundled energy, renewable energy certificates, where applicable, and RA or RA only through this solicitation. Individual offers between 1 MW and 150 MW will be

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considered and offers outside of that capacity range may be disregarded. For reference, RCEA’s procurement obligation for compliance with the CPUC Decision is shown in the following table, excluding its long-lead time resource obligation for which RCEA is not seeking capacity.

<table>
<thead>
<tr>
<th>RCEA Obligations in Net Qualifying Capacity MW by Delivery Deadline</th>
<th>Aug 2023</th>
<th>Jun 2024</th>
<th>Jun 2025</th>
<th>Jun 2026</th>
<th>Jun 2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic RA</td>
<td>7</td>
<td>20</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Zero Emission RA (part of generic RA)</td>
<td>8</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 SUBMISSION DETAILS

3.1 RESPONSE SUBMITTAL INSTRUCTIONS

This RFO will be open and responses will be received until RCEA has fulfilled its CPUC mandated MTR procurement obligations or until August 1, 2025, whichever comes first, at which time this RFO will close. RCEA will conduct a first review of all responses received to date on August 15, 2023. Thereafter, RCEA will conduct subsequent reviews on a rolling basis at the discretion of RCEA staff. Responses must be emailed to procurement@redwoodenergy.org. The subject line of the email accompanying the response should include the phrase “RCEA 2023 MTR RFO Submittal”. RCEA encourages respondents to be clear and concise in their offers, while still providing enough detail for the review team to adequately evaluate the offering.

3.2 SOLICITATION DOCUMENTS

The documents accompanying this solicitation protocol are as follows and are posted on RCEA’s contracting opportunities webpage: https://redwoodenergy.org/contracting/.

Respondents are responsible for familiarizing themselves with and being fully aware of the terms of this solicitation, including each appendix.

- Appendix A Statement of Qualifications (SOQ) Form
- Appendix B Project Details Form
- Appendix C Offer Form
- Appendix D Proforma PPA
- Appendix E Exclusivity Agreement

3.3 SUBMISSION MATERIALS

Submittals will be deemed complete if they include the following materials and are responsive to the instructions below. Submittals will be deemed conforming if they adhere to the mandatory criteria described in Section 2.1.

- Single SOQ Form in PDF or Word format (Appendix A)
- Single or multiple Project Details Form in PDF or Word format (Appendix B)
- Single Offer Form in Excel format (Appendix C)
- Single or multiple Project Maps in PDF format
- Financial Statements in PDF format (following execution of RCEA’s Confidentiality Agreement)
Statement of Qualifications Form

Respondents are required to submit a statement of qualifications substantially in the form of Appendix A. The respondent can use their own letterhead or standard template but must respond to all prompts in the order shown in the SOQ Form. Only submit one SOQ Form even if multiple projects are being offered.

Project Details Form

Respondents are required to submit details about the offered project(s) substantially in the form of Appendix B. The respondent can use their own letterhead or standard template but must respond to all prompts in the order shown in the Project Details Form. Please submit a separate Project Details Form for each offered project. If multiple unique offers are being submitted for the same facility (e.g. different term lengths or different MW capacities), only submit one Project Details Form for that project.

Offer Form

Respondents are required to submit a single Offer Form using the template provided in Appendix C, including the material commercial terms of all the unique offers they are submitting for consideration. The material commercial terms presented in the offer form are not modifiable once the offer is submitted for evaluation. Follow the instructions in the Instructions Tab of the Offer Form and ensure that all required cells are filled in. If providing multiple offers, do not submit a separate Offer Form for each individual project or unique configuration of terms that is being offered. The instructions specify how multiple unique offers are to be submitted within one Offer Form.

Project Map

Respondents shall submit a map of each offered project showing the site location and key project facilities. The map should include the project boundary, street names or highway names, latitude/longitude, and generation interconnect route from the facility to the first point of interconnection to the electric grid. The project boundaries should reflect the most recent information available.

Financial Statements

Respondents will provide at least two recent years of financial statements. RCEA prefers to receive audited financials but will accept unaudited financials in lieu if the respondent does not have recent audited statements. If the offered project is anticipated to be financed by one or more parent companies or affiliates of the respondent, please submit financial statements for all such entities in addition to those of the respondent together with an explanation of the relationship between such entities and the respondent. In the event that the respondent cannot provide financial statements without a confidentiality agreement in place, RCEA will provide a partially executed confidentiality agreement to the respondent upon determining that they timely submitted an otherwise complete and conforming offer. The respondent will be expected to execute the confidentiality agreement and send their financial statements to RCEA within five business days so that the evaluation committee can proceed with reviewing the respondents offer(s).
3.4 SUPPLIER DIVERSITY AND LABOR PRACTICES

Consistent with the California Public Utilities Code and California Public Utilities Commission policy objectives, RCEA collects information regarding supplier diversity and labor practices from project developers and their subcontractors regarding past, current and/or planned efforts and policies. Pursuant to Public Utilities Code §§ 8281-8286 (through which the CPUC requires RCEA and its commission-regulated subsidiaries and affiliates to submit annual detailed and verifiable plans for increasing women-owned, minority-owned, disabled veteran-owned and LGBT-owned business enterprises’ procurement in all categories), respondents that execute a contract with RCEA will be required to complete a supplier diversity questionnaire at the time of execution, and/or periodically at later dates as specified by RCEA. Respondents that are women, minority, LGBT, and disabled veteran-owned businesses are encouraged to apply for certification by the CPUC’s Supplier Diversity Clearinghouse Program. This certification is voluntary and will not be used as a criterion for evaluation. As required by law in California, RCEA as a public agency does not give preferential treatment based on race, sex, color, ethnicity, or national origin; providing such information as part of the offer package will not impact the selection process or good standing of executed contracts.

3.5 PUBLIC NATURE OF RESPONSES

All responses to this RFO, as well as records of pre-submittal and post-submittal communications with RCEA, will become the exclusive property of RCEA, subject to disclosure in accordance with the California Public Records Act (Cal. Government Code section 6250 et seq.). Respondents should limit submission of information or documents that they consider proprietary and that they would not want publicly disclosed and should clearly mark such information or documents as confidential. RCEA will consider limited requests for confidentiality on a case-by-case basis, provided that such requests are made at the time of offer submission. All responses will be kept confidential until either all contracts have been awarded or all offers have been rejected.

3.6 QUESTIONS ABOUT THIS SOLICITATION

All questions from potential respondents to this solicitation must be emailed to procurement@redwoodenergy.org. The subject line of the email should include only the phrase “RCEA 2023 RFO Questions.” Q&A responding to the questions received will be posted on the RCEA website by the deadline listed in the schedule. RCEA reserves the right to respond to no questions or only a subset of the questions received, or to provide consolidated responses to duplicative questions. RCEA will not hold a respondents’ webinar so written questions are the only method of obtaining clarifications regarding the RFO. It is incumbent on the respondent to understand how to provide the required information pertinent to their specific project in advance of the submittal deadline such that their submittal package is complete and conforming.

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6 http://www.thesupplierclearinghouse.com/
4 SCHEDULE

The following schedule is subject to change at any time during the solicitation process at the discretion of RCEA. Communications regarding schedule changes will be posted on RCEA’s website.

<table>
<thead>
<tr>
<th>Step</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuance of RFO</td>
<td>August 1, 2023</td>
</tr>
<tr>
<td>First review of responses</td>
<td>August 15, 2023</td>
</tr>
<tr>
<td>Subsequent review of responses</td>
<td>On a rolling basis at the discretion of RCEA staff</td>
</tr>
<tr>
<td>RCEA Board ad hoc committee approval of first shortlist</td>
<td>By September 8, 2023*</td>
</tr>
<tr>
<td>Respondents are notified of first shortlist status</td>
<td>By September 15, 2023*</td>
</tr>
<tr>
<td>Execute exclusivity agreements &amp; collect deposits</td>
<td>By September 22, 2023*</td>
</tr>
<tr>
<td>Contract negotiations and RCEA Board approval of first final agreements</td>
<td>Q4 2023*</td>
</tr>
<tr>
<td>Closure of RFO and responses no longer accepted</td>
<td>No later than August 1, 2025</td>
</tr>
</tbody>
</table>

* This step will repeat on a rolling basis with subsequent offer review periods.

RCEA will post Q&A and any addenda on its website: https://redwoodenergy.org/contracting/

5 EVALUATION AND SELECTION PROCESS

An evaluation committee made up of RCEA staff and consultants will review responses to this solicitation. In accordance with the following process, each offer will be screened for completeness and scored on a weighted criteria basis, and then some respondents may be offered an interview. As described above, RCEA will conduct a first review of complete responses received by August 15, 2023, based on the evaluation and selection process set out in this Section 5. Subsequent reviews of responses received later will also be based on the process set out in this Section 5, on a periodic basis to be determined by RCEA.

5.1 CONFORMITY REVIEW

Responses will initially be screened by RCEA staff for timely submission, and for completeness and conformity with the mandatory criteria stated in Section 2.1 and the submittal requirements in Section 3. This screening will be on a pass/fail basis and incomplete or non-conforming offers may be rejected at RCEA’s discretion. Each offer that is deemed complete and conforming will then be provided to the evaluation committee members for review.

5.2 OFFER SCORING

Criteria for selection will include, but not be limited to, the items listed below. RCEA’s evaluation committee will score each response on a weighted criteria basis to determine the highest scoring offers. The offer will be scored on a scale of zero to five in each criterion with a five being the best score. The offer’s total points will be calculated according to each criterion’s weight below and the average score assigned by the evaluation committee, out of a maximum of 100 points. One or more of the highest scoring offers may proceed to the interview phase.
**Weighted Scoring Criteria**

- 30 – Overall price, customer value and compliance value
- 30 – Development risk including site control, interconnection permitting, and financing
- 20 – Respondent experience, qualifications, creditworthiness
- 10 – Site-specific environmental impact
- 10 – Location (see section 2.2) and community benefit

**5.3 INTERVIEWS**

Following initial ranking of offers according to the scoring process above, one or more respondents may be offered an opportunity to be interviewed by the evaluation committee. The interviews are generally intended to clarify information presented in the offer documentation, to help the evaluation committee members assess the offeror’s compatibility with RCEA as a potential business partner, and to confirm the current development status of individual projects. The interviews are not intended to reveal additional or revised information about an offer that would improve the offer’s placement in the initial ranking that resulted from the scoring process. If such information is revealed, it will be disregarded and not considered as part of the offer evaluation. A list of specific guidelines will be circulated upon initiation of an interview, to be adhered to by both the respondent representatives and the RCEA evaluation committee. Interview outcomes may or may not be used as a factor in determining which offers are shortlisted.

**5.4 SHORTLISTING**

Following each evaluation process, offers will be presented to an RCEA Board of Directors ad hoc offer review committee for shortlist approval prior to the parties commencing contract negotiations. All respondent(s) will be notified whether or not their offer has been shortlisted following engagement of the ad hoc offer review committee. At that time, respondents with shortlisted offers will be required to sign RCEA’s standard Exclusivity Agreement (Appendix E) and submit a shortlist deposit within five business days of notification. Substantive changes to the Exclusivity Agreement will not be considered by RCEA.

The shortlist deposit is intended to secure the offer made by a shortlisted respondent through the contract negotiation period. The shortlist deposit must be in the form of a cash deposit. The respondent is solely responsible for the cost of providing the shortlist deposit. Instructions for submitting the deposit will be provided upon notification of placement on the proposed shortlist. The shortlist deposit will be in the amount specified below.

**Shortlist Deposit Amounts**

- Standalone generation: $3.00/kW-AC of offered nameplate capacity
- Generation plus storage: $4.50/kW-AC of offered nameplate capacity of the larger of the generation or storage resource

Please refer to Appendix E for additional details regarding the Exclusivity Deadline (as defined in the Exclusivity Agreement) and return of the shortlist deposit.

In the event that shortlisted respondents are not able to fulfill their offered capacity and price, RCEA may contact respondents who were not initially shortlisted to provide an updated offer. Any offers selected via this process will be subject to re-verification of eligibility and a request
for updated pricing, re-approval by the RCEA Board of Directors ad hoc offer review committee, and commitment of the shortlist deposit and project exclusivity.

5.5 CONTRACT NEGOTIATIONS

RCEA has issued its Proforma PPA as Appendix D for use under this RFO. Respondents shall not submit redlines to the Proforma PPA as part of their RFO submittal package. Upon approval of the shortlist by the RCEA Board of Directors ad hoc offer review committee, shortlisted respondents will be notified and expected to submit proposed redlines to the Proforma PPA within a specified time period, indicating what provisions they wish to negotiate. While RCEA will consider limited requests for adjustments and edits to its form agreements, adherence to RCEA’s standard contract terms is an important factor in the contract negotiation process. Respondents should be aware that material changes to RCEA’s standard contract terms may result in rejection of the offer. RCEA reserves the right to negotiate modifications to purchase agreements with shortlisted parties to include additional power products not originally offered.

Upon approval of the shortlist by the RCEA Board of Directors ad hoc offer review committee, RCEA will notify all respondents of their status and a regular meeting schedule will be established between RCEA and the shortlisted counterparties. RCEA intends to complete negotiations on an expedited schedule in order to ensure timely project delivery for MTR Decision compliance purposes. Upon completion of negotiations, final agreements will be presented to the RCEA Board of Directors for approval. It is expected that agreements will be executed by both parties shortly after approval by the RCEA Board of Directors and before the Exclusivity Deadline (as defined in the Exclusivity Agreement), and that development security will then be posted in accordance with the period specified in the PPA.

5.6 RESPONDENT COMMUNICATIONS

Questions, comments or feedback associated with this RFO must be sent electronically to procurement@redwoodenergy.org. RCEA will not respond by other means to questions from respondents or prospective respondents on or before the submission due date.

5.7 DISCLAIMER FOR ACCEPTANCE OR REJECTION OF OFFERS AND RFO TERMINATION

By participating in RCEA’s RFO process, a respondent acknowledges that it has read, understands, and agrees to the terms and conditions set forth in the RFO instructions contained herein. RCEA reserves the right to reject any offer that does not comply with the requirements identified herein, or to waive irregularities, if any in deciding to shortlist a non-conforming offer. RCEA further reserves the right to communicate with individual respondents to ask clarifying questions about their offers prior to determining whether to shortlist an offer. Placement of an offer on the shortlist does not constitute or indicate acceptance by RCEA of any offer, any term thereof, or any related contract term. RCEA has no obligation and makes no commitment to (i) enter into a transaction with any respondent, including a respondent with a shortlisted offer, or (ii) be bound by any term proposed by the respondent. Furthermore, RCEA may, at its sole discretion and without notice, modify, suspend, or terminate the RFO without liability to any organization or individual. Such modification or termination shall be made in the form of addenda to this solicitation. This RFO does not constitute an offer to buy or create an obligation for RCEA to enter into an agreement with any party, and RCEA shall not be bound by the terms
of any offer until it has entered into a fully executed agreement. RCEA shall not be responsible for any of the respondent’s costs incurred to prepare, submit, negotiate, or to enter into an agreement, or for any other activity related to meeting the requirements established in this solicitation. All submittals shall become the property of RCEA and will not be returned.

The results of this RFO and the information provided therein may be shared with other Community Choice Aggregators, but only with prior written approval from respondents whose offers RCEA wishes to share.
2023 Request for Offers for Mid-Term Reliability Resources

Presentation to RCEA Board of Directors
July 28, 2023
Background & Objective

Supplemental MTR Decision issued by CPUC February 2023, adding 2027 & 2028 procurement obligations to 2021 MTR Decision.

<table>
<thead>
<tr>
<th>Requirement by Category</th>
<th>Aug 2023</th>
<th>Jun 2024</th>
<th>Jun 2025</th>
<th>Jun 2026</th>
<th>Jun 2027</th>
<th>Jun 2028</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCEA total procurement consisting of:</td>
<td>7</td>
<td>20</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>53</td>
</tr>
<tr>
<td>Diablo Canyon Replacement Capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
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<td>Other Capacity</td>
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<td></td>
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<td></td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Long Lead Time: Long Duration Storage*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>Long Lead Time: Clean Firm Resources*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.5</td>
</tr>
</tbody>
</table>
MTR Procurement Efforts

**CPUC June 2021 Mid-Term Reliability Decision**
- Long-Duration Storage Mandate
  - LDS Solicitation
  - **Tumbleweed LDS** (approved Feb 2022)
  - **Goal Line LDS** (approved Apr 2022)
  - **Fish Lake Geothermal** (approved Jul 2022)
  - **Ormat Geothermal** (approved Jul 2022)
- Firm Clean Resources Mandate
  - FCR Solicitation
  - **Fairhaven Storage** (approved June 2022)
  - **Foster Clean Power A solar + storage** (approved July 2022)
  - No eligible contracts
- **CC Power Joint Solicitations**
  - LDS Solicitation
  - FCR Solicitation
- **Other MTR Mandates**
- **CPUC Feb 2023 Supplemental MTR Decision**
- **Bilateral CCA transactions**
- RCEA 2021 MTR RFQ-RFO
- **RCEA 2022 ZER RFO**
- **RCEA 2023 ZER RFO**
- **RCEA 2023 MTR RFO**
- Valley Clean Energy RA swap (approved Jan 2023)
RFO Summary

- Seeking renewable, carbon-free and energy storage projects that can be operational by summer 2025-2027

- Same documents, terms and conditions as February RFO except:
  - Allowing offers that meet general capacity obligation instead of only Diablo Canyon replacement requirement.
  - Adjusted evaluation structure with periodic review and shortlisting over a longer open period, as opposed to a short window with all offers due at the end.
  - RFO to be open until sooner of August 2025 or RCEA satisfying its MTR procurement obligations.
Shortlisting & Contracting

Proposed Board of Directors ad hoc offer review committee to:

• Periodically review and shortlist offers.
• Review and approve any material changes to offers during contract negotiations.

Final contracts will be brought to the full RCEA Board of Directors for approval.
STAFF REPORT
Agenda Item # 7.1

AGENDA DATE:  July 27, 2023
TO:  Board of Directors
PREPARED BY:  Jaclyn Harr, TEA Client Services Manager
Richard Engel, Director of Power Resources
SUBJECT:  Energy Risk Management Quarterly Report

BACKGROUND

The RCEA Board of Directors adopted an Energy Risk Management Policy (RCEA-ERMP-Approved-Dec-2022.pdf (redwoodenergy.org) in December 2016 and most recently revised in December 2022, to establish functions and procedures to manage the risks associated with the Community Choice Energy program’s power procurement activities. In accordance with this policy, a quarterly update on activities and projected financial performance is presented to the Board during regularly scheduled meetings.

SUMMARY

The Energy Authority (TEA) Client Services Manager Jaclyn Harr and RCEA staff will provide an energy risk management quarterly update.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

Not applicable.

EQUITY IMPACTS

Not applicable.

RECOMMENDED ACTION


ATTACHMENTS

Energy Risk Management Quarterly Report slides will be presented at the meeting.
RCEA
Energy Risk Management Quarterly Report

July 2023 Board Meeting
Overview of Financial Drivers

Rates & Load Forecast:

• Updated forecast of PG&E rates in 2024+
  • -$9.5M impact in 2024
  • -$7.8M impact in 2025

Net Power Costs:

• Sandrini Solar COD moved from Q2 2024 to Q1 2025
  • -$17.5M loss of value in 2024

• NP15 forward energy prices (including shaping) decrease
  • $8M impact in 2023, $6M impact in 2024 & 2025

• Environmental products (carbon-free and renewable power) and RA prices increasing
Sandrini Delay Impacts

• $17.5M in lost value from additional nine-month delay of project’s commercial operation date
  ▪ $5.5M reduction in PPA costs
  ▪ $11.5M increase in energy revenues
  ▪ $1.8M increase in incremental RA costs
  ▪ +$6.3M increase in additional renewable PCC1 procurement
  ▪ +$1.3M increase in additional carbon free procurement
  ▪ +$2.1M increase in potential renewable PCC1 revenues from selling long position relative to internal goals
Value of Sandrini in RCEA Portfolio

![Bar chart showing the value of Sandrini in RCEA Portfolio from 2024 to 2039. The chart indicates a consistent percentage (36% to 32%) across the years, with load forecasts in blue and Sandrini contributions in orange.](chart.png)
Forecasted RCEA Energy Prices

The chart shows the forecasted energy prices for RCEA, with a focus on both on-peak and off-peak periods. The prices are presented in dollars per MWh ($/MWh) from July 2023 to June 2025. The chart includes lines for April and July board forward prices, both on-peak and off-peak, indicating fluctuations throughout the year.
### RCEA Annual Net Revenue Forecast

<table>
<thead>
<tr>
<th>Year</th>
<th>April Board</th>
<th>July Board</th>
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<tbody>
<tr>
<td>2023</td>
<td>$9,095,001</td>
<td>$10,537,333</td>
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<tr>
<td>2024</td>
<td>$22,712,568</td>
<td>$(8,289,321)</td>
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<tr>
<td>2025</td>
<td>$27,341,698</td>
<td>$18,263,504</td>
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RCEA Cash Balance History & Projection

Cash Balance Historical + Projected
# RCEA Two-Year Cash Projection

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<tr>
<th>April Board</th>
<th>July Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>$13.7M</td>
<td>$12.1M</td>
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<tr>
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<th>Avg</th>
<th>Ending</th>
<th>Min</th>
<th>Avg</th>
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<td>$52.2M</td>
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<td>$18.4M</td>
<td>$17.8M</td>
</tr>
</tbody>
</table>

### Graph

- **April Board**
- **July Board**

The graph shows the projected cash flow for the periods July - Dec 2023, CY 2024, and Jan - June 2025, with the cash ending balances represented in millions of dollars.
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BACKGROUND

When authorizing extension of RCEA’s power purchase agreement (PPA) for biomass energy with Humboldt Sawmill Company (HSC) in April 2021, RCEA’s Board directed staff to "periodically review the contract...assessing current alternate biomass uses and other environmental considerations." To create a framework for the requested periodic review, staff negotiated a memorandum of understanding (MOU) between RCEA and HSC, which the Board adopted in September 2021. One provision of the MOU is as follows:

Annually on or around May 1 and continuing until the termination of the PPA, representatives of the Parties will meet to review the terms of the PPA and to discuss the continued viability of biomass power production by the HSC facility relative to other potential or actual uses of the biomass feedstock by HSC or other entities.

The MOU also calls for HSC to provide data on plant performance on request; types, quantities, and sources of biomass feedstock; and plant emissions. In last year’s reporting, the emissions information provided by HSC was limited to annual totals for key pollutants. This year, RCEA staff in consultation with the North Coast Unified Air Quality Management District (NCUAQMD) requested more detailed and specific emissions information, which HSC provided.

As a reminder, the MOU’s purpose is not to terminate or otherwise override the terms of the PPA. As the MOU states: “This MOU does not and is not intended to supersede, replace, or subordinate any provisions, representations, covenants, rights, or obligations in the PPA.” While the MOU does not allow for early termination of the biomass PPA, it could help form a pathway for alternative use of the biomass plant’s feedstock material once the current PPA’s term expires. Meanwhile, RCEA’s Humboldt’s Electric Future project, also being presented to the Board for final report review this month, provides a forum for broader discussion of the place of biomass from HSC and/or other potential sources in RCEA’s portfolio over the coming decade.

The second of the annual meetings between RCEA and HSC staff took place at HSC’s Scotia headquarters on June 8, 2023. This year staff gave RCEA’s recently formed Biomass Technical
Advisory Group (BTAG) and the Community Advisory Committee (CAC) an opportunity to review and comment on HSC’s reporting materials before staff presented them to the Board. HSC’s reporting and BTAG member comments on the report were included in the CAC’s July 11, 2023, meeting packet and attachments at https://redwoodenergy.org/cac/.

SUMMARY

Staff will present an overview of the data received from HSC and a summary of review comments from BTAG members and the CAC at this meeting. BTAG members and the CAC raised a number of important questions about the scope and content of HSC’s reporting. Staff will seek to address these questions to the extent possible as part of the next annual reporting cycle, or sooner if directed to do so by the Board.

Points raised by the CAC members in their discussion focused mostly on plant emissions and included:

- Importance of seeing emissions data at monthly intervals, rather than the annual totals disclosed by HSC
- The value of seeing more of the data in graph form for easier interpretation
- The value of seeing emissions data compared against air quality standards to understand where these limits are being exceeded
- Desire to have NCUAQMD staff explain reported deviations from air quality standards and what actions were taken that brought HSC back into compliance, if they are in fact currently in compliance
- Interest in learning more about how local, state, and federal regulators respond, or should respond by statute, to air quality violations.

CAC members were asked to focus their review on how relevant, complete, comprehensible, and responsive to the intent of the MOU HSC’s materials and BTAG’s review comments were. The discussion moved beyond this scope into questioning the appropriateness of RCEA procuring biomass energy from HSC. CAC members asked for analysis of what regulatory compliance and financial risks RCEA would face by not having its biomass contract with HSC. They also asked whether the power purchase agreement with HSC could or should be terminated on the basis of HSC’s past air quality violations.

The financial value of the HSC contract has changed markedly since 2017, when RCEA first contracted with HSC at a price somewhat above market value in the interest of having an operational local renewable resource in our portfolio at the time of launching our community choice energy (CCE) program. Since then, RCEA has successfully negotiated a lower contract price in exchange for a longer contract term. This, combined with the increasing prices of energy, resource adequacy, and green energy attributes, has made the contract yet more attractive relative to the market. In terms of compliance, RCEA’s experience during the first six years of the CCE program has been that new renewable energy projects have seen numerous delays, putting our procurement compliance at risk and highlighting the value of having some pre-existing resources such as HSC and the Snow Mountain hydro project in our portfolio while we strive to get those new projects built.
Given the critical comments that continue to be raised about possible health impacts of emissions from biomass power, staff have been in discussions with public health leadership at the County. They have tentatively agreed to provide a presentation on the topic to the RCEA Board at a later date. Staff are also discussing with Air District staff the opportunity to install additional ambient air quality monitoring equipment as a “citizen science” effort to better understand the risk of human exposure to pollutants from biomass plants, and how ambient pollutant levels in the vicinity of the HSC plant compare with background pollutant levels elsewhere in the county, and with the elevated pollutant levels commonly seen during wildfire season.

One purpose of the MOU is to explore with HSC possible alternative uses of the biomass feedstock. To date, HSC has not provided written reporting on this topic but did disclose that they used funding from CalFIRE to hire a consultant to study such alternative uses. HSC considers the consultant report confidential and has not offered to share it with RCEA. Staff will continue to engage with HSC on this topic and hope to have more concrete information to report in the next cycle.

Staff propose in future reporting cycles to have in-depth review of HSC’s materials occur in alternating odd-numbered years to coincide with the Humboldt’s Electric Future public process that informs integrated resource plans (IRPs) prepared for the California Public Utilities Commission in the subsequent even-numbered years. A less detailed review of HSC’s reporting could take place in the even-numbered years in order to allow staff to focus on the time-consuming process of preparing the IRP.

As further process improvements, staff proposes to adjust the schedule of HSC’s reporting and presentation to the CAC and Board to allow more time for BTAG members to review the reporting materials and give staff time to follow up with HSC on any questions from BTAG. Staff will also provide more careful curation of the reporting materials so all reviewers have needed context. An in-person or hybrid meeting of BTAG will facilitate discussion among the members and may enable staff to assemble a consolidated set of comments from BTAG identifying areas of consensus and disagreement, instead of simply collecting and passing along comments from individual members.

ALIGNMENT WITH RCEA’S STRATEGIC PLAN

RCEA’s consultations with HSC in implementing the terms of the MOU are in keeping with the following strategies in the RePower Humboldt plan:

- 4.1.11.3 Investigate the Impacts of Biomass Emissions
- 4.1.11.6 Plan for a Long-Term Transition Away from Direct Combustion of Forest Derived Biomass and Toward Lower-Impact Uses of this Material

Review of HSC’s reporting by BTAG is in keeping with the RePower Humboldt plan’s direction:

- 4.1.11.4 Establish a Biomass Technical Advisory Committee

EQUITY IMPACTS

Not applicable.
FINANCIAL IMPACT
None – information only.

STAFF RECOMMENDATION
None – information only.

ATTACHMENTS
None – A slide presentation by staff will be made at the Board meeting.
Second Annual Report on Consultations with Humboldt Sawmill Company Regarding Alternative Biomass Uses

Presentation to RCEA Board of Directors
July 27, 2023
Topics

• MOU Background & Process Changes
• Summary of findings from reporting
• Comments from Biomass Technical Advisory Group
• Alternative biomass use opportunities
• Proposed air quality “citizen science” project
• Community Advisory Committee discussion
• Lessons learned & next steps
MOU with Humboldt Sawmill Company

• When authorizing extension of RCEA’s power purchase agreement (PPA) with HSC in April 2021, the Board directed staff to "periodically review the contract...assessing current alternate biomass uses and other environmental considerations."

• To implement this guidance, staff negotiated an MOU with HSC, adopted by Board in September 2021

• MOU calls for HSC to provide operational data on feedstock, plant performance, and emissions

• Also calls for annual meeting to discuss terms of PPA and continued viability of biomass power relative to other feedstock uses
Year 2 Process Improvements

- This was second year of annual reporting/meeting w/ HSC
- Per process improvements discussed with CAC in September 2022, this year staff solicited review by RCEA’s newly formed Biomass Technical Advisory Group (BTAG) and CAC before presenting outcomes to the Board.

Reporting and Review Pathway

2022

HSC → RCEA Staff → Board

2023

HSC → RCEA Staff → BTAG → CAC → Board
Plant curtailed by PG&E for most of August 2021 while Humboldt Bay plant islanding.

Scotia sawmill offline for capital project in early 2022, sourced feedstock from the company’s Ukiah facility.

High fuel moisture levels, quake repercussions, etc., resulted in lower usage and production.
Supplier Origin of HSC Feedstock
2021-2022 through 2022-2023 Reporting Years

Sourced externally (tons)
Sourced internally from HRC/MRC forestlands (tons)

Offtake from Fairhaven, et al
Feedstock Species

(May-21 through Apr-22)
- Redwood: 74%
- Doug Fir: 20%
- Other: 6%

(May-22 through Apr-23)
- Redwood: 60%
- Doug Fir: 23%
- Hem Fir: 14%
- Other: 3%
Activity Origins of Feedstock

(May-21 through Apr-22)

- Timberlands & Sawmill: 95%
- PG&E Line Clearing: 3%
- Landscaping Materials: 1%
- Almond Hulls & Shells: 1%

(May-22 through April-23)

- Timberlands/sawmill: 95%
- PG&E Line Clearing: 3%
- Landscaping materials: 2%

BTAG comment: show timberlands and sawmill data separately
HSC Generation Fuel Inputs (MMBTU)

May-21 through Apr-22
- Biomass Use, 99.78%
- Diesel Use, 0.22%

May-22 through Apr-23
- Biomass Fuel Use, 99.63%
- Diesel Use, 0.37%
HSC Generation Dispatch

May-21 through Apr-22

- Onsite Electric Use (Sawmill & Other Loads): 31%
- Electric Sales to RCEA: 69%

May-22 through Apr-23

- Onsite Electric Use from Plant: 31%
- Total Electric Sales to RCEA: 69%
High fuel moisture levels, quake repercussions, etc., resulted in lower usage and production.
Annual Generation and CO2e Emissions

- Sum of Biomass CO2
- Sum of Non-Biomass CO2
- Sum of Annual Generation (MWh)


CO2e Emissions in Metric Tons:
- 2016: 220,000
- 2017: 230,000
- 2018: 300,000
- 2019: 270,000
- 2020: 280,000
- 2021: 290,000

Annual Generation in MWh:
- 2016: 140,000
- 2017: 150,000
- 2018: 160,000
- 2019: 170,000
- 2020: 180,000
- 2021: 190,000

Graph shows an upward trend in CO2e emissions and a similar trend in annual generation from 2016 to 2021.
Comments from Biomass Technical Advisory Group

- Comments received from:
  - Roberto Beltran, US Forest Service District Ranger, Klamath NF
  - Kevin Fingerman, Associate Professor, Cal Poly Humboldt
- Joint comments from environmental groups:
  - Caroline Griffith, Northcoast Environmental Center
  - Tom Wheeler, EPIC
  - Daniel Chandler, 350 Humboldt
  - Jason Davis, North Coast Unified Air Quality Management District*
  - Clarke Stevenson, The Watershed Research and Training Center*

* not included in July CAC packet – see following slides
Comments from Jason Davis, North Coast Unified Air Quality Management District

District Staff's review focused on the following supporting materials:

- Annual Source Testing Reports
- Compliance Certification Reports
- Annual Feedstock Utilization Report

Staff Comments & Recommendations

1. The documents submitted to RCEA by HSC (Annual Source Testing Reports and Compliance Certification Reports) are the same as those submitted to the NCUAQMD to satisfy permit and Clean Air Act reporting requirements.

2. The results of compliance testing conducted on Boilers A & C in September of 2022 indicate transitory deviations of best available control technology standards for particulate matter. Subsequent testing conducted in late November indicates a return to compliance with the standards. The resolution of compliance issues is documented in the pending Full Compliance Evaluation report for HSC covering the 2021-2022 time period.
Comments and Clarifying Questions from Clarke Stevenson, The Watershed Research and Training Center

- Is there a lower limit emission goal for HSC that RCEA is striving for? I imagine the facility is compliant with the AQMD, so is it just, “as low as possible”?
- Is there a substitute energy source that RCEA would use if HSC's PPA is terminated? If so, would it make sense to compare LCA emission values against that?
- Has HSC examined the latest BACT* technologies as potential alternatives to biofuel retrofits? I believe I read in one of the documents that it may be too old for new attachments, yes?
- I was under the impression that HSC is under review by RCEA for their emissions as an energy generator, not for their feedstock sources. As I was not in attendance for [Michael] Furniss' report and the subsequent ruling of the RCEA-HSC MOU, I am unaware of the underlying sentiment of the BTAC committee. If one of the potential outcomes for HSC could be something like BioRAM/BioMAT's 80% HHZ** feedstock compliance ruling, then that should be known.
- Similarly, is the BTAC also supposed to focus on alternative biomass uses, not just the viability for RCEA-HSC to shift to a clearer system?

* Best Available Control Technologies  ** High Hazard Zone
• HSC informed RCEA staff that they used a CalFIRE grant to hire a consultant to study alternative uses of biomass feedstock from their Humboldt and Mendocino operations.

• The study results point to hydrogen production as a leading opportunity

• The study itself is considered confidential at this time and has not been shared with RCEA
Proposed Air Quality “Citizen Science” Project

• RCEA staff have had preliminary discussion with North Coast Unified Air Quality Management District leadership about a possible project to deploy low-cost air quality monitoring devices

• These could be installed at various locations to understand background pollutant levels and how ambient outdoor pollutant levels near HSC’s Scotia plant compare to other locations, seasonal patterns, correlation with HSC plant operation, etc.

• A similar study has been undertaken jointly by the Schatz Energy Research Center and the Karuk Tribe
Community Advisory Committee Discussion

- Key CAC comments:
  - Importance of seeing emissions data at monthly intervals
  - Value of seeing more of the data in graph form
  - Value of seeing emissions data compared against air quality standards to understand where limits are being exceeded
  - Desire to have NCUAQMD staff explain reported deviations from air quality standards and what actions were taken that brought HSC back into compliance
  - Interest in learning more about how local, state, and federal regulators respond, or should respond by statute, to air quality violations.

- Several CAC members raised questions about appropriateness of RCEA procuring biomass power, given pollutant and greenhouse gas emissions

- Public comment at the CAC meeting centered on concerns about emissions
Lessons learned for next reporting cycle

• Provide Biomass Technical Advisory Group (BTAG) with more contextual information to help interpret data provided by HSC
• Schedule more time for BTAG and CAC to review HSC report, including opportunity to get their questions answered by HSC
• Consider convening an in-person or hybrid meeting of the BTAG to discuss the report (was done via email only this time)
Next Steps

• Provide any Board feedback on reporting process to HSC
• Incorporate lessons learned in scheduling and carrying out the 2024 reporting and review cycle
Questions or comments?
BACKGROUND

As discussed with the Board in April, staff developed the “Humboldt’s Electric Future” (HEF) project as an accessible venue for informing the public about RCEA’s long-term power procurement and for gathering public input that will inform the 2024 version of RCEA’s integrated resource plan (IRP) that the State requires us to update every two years. After publishing the HEF initial report in April, RCEA held in-person and online public workshops in June, with help from a third-party facilitator. Staff incorporated public input collected in those workshops into a draft final report that was presented to the Community Advisory Committee at their July 11 meeting and is now being presented to the Board.

SUMMARY

The key public participation activities in the workshops included:

- Small group discussion of questions about how RCEA should prioritize spending on its strategic goals, the value of procuring energy from local sources, and identification of key challenges to meeting local energy needs affordably and equitably.
- A resource allocation exercise in which participants were asked to “spend” ten tokens as they wished among various strategic priorities.
- An electric portfolio evaluation exercise in which participants ranked several hypothetical energy mixes, taking into account the financial value of each mix.

Details on the discussion questions and participant responses are included in the attached draft final report. The discussions were lively and diverse in ideas and opinions expressed. The resource allocation activity showed a preference for investing in local renewable energy development; however, in the electric portfolio exercise participants suggested that they value rapid decarbonization and financial sustainability even more strongly than procuring energy from local sources.

Participants were also asked to complete post-workshop evaluations in which they indicated to what degree they felt their opinions were heard and how effective they felt the workshop format...
was. The workshop evaluations, which were generally positive, are summarized in an appendix to the draft final report. Some respondents from the in-person event indicated they would like to see a larger turnout that is more diverse and representative of the community for such workshops. As discussed in the draft final report, staff are exploring ways to accomplish this in the future.

At their July 11 meeting, CAC members received a presentation on the draft final report and provided the following comments, several of which have been addressed in the version being presented to the Board:

- Go beyond studying procurement of round-the-clock renewable energy to make this an explicit Board-adopted goal for the Community Choice Energy program (note: staff have recently procured needed computer hardware and software and plan to dedicate staff resources to conducting this study in the coming months).
- Acknowledge that alternative renewable energy resources could be procured in lieu of biomass power to comply with Senate Bill 350’s requirement that 65% of state-mandated renewable energy be procured through contracts of ten years’ duration or longer, or through RCEA-owned generation.
- Address whether expected electrification of buildings and transportation were incorporated in the load forecast used in the report (note: the State’s Integrated Energy Policy Report load forecast used in the report does account for electrification).
- Address how biogenic emissions were considered along with emissions from other sources in assessing the emissions intensity of the different energy portfolios (note: emissions were not explicitly quantified as part of HEF but are quantified in each IRP).
- Indicate how many people attended the online and in-person workshops.
- Add definitions of key terms that were not included in the initial report’s glossary.
- Improve formatting of report to enhance readability, similar to how the Humboldt’s Electric Future initial report was formatted.

The CAC also discussed how to ensure a larger and more diverse and representative segment of the community participates in future iterations of the Humboldt’s Electric Future public engagement.

Staff appreciate the contributions several CAC members and RCEA’s Board Chair Sheri Woo made to planning and carrying out the workshops. Their support helped make the workshops and the overall Humboldt’s Electric Future project a success.

ALIGNMENT WITH RCEA’S STRATEGIC PLAN

The Humboldt’s Electric Future project was used to gather community input to support several of the RCEA Strategic Plan’s highest-level goals:

Regional Planning and Coordination

- Achieve net-zero greenhouse gas emissions county-wide by 2030.
- By 2030 fully establish Humboldt County as an energy secure community that can affordably and reliably meet its local energy needs with local renewable resources and
has the robust local capabilities and infrastructure necessary to effectively respond to energy emergencies or disruptions in energy supply.

**Energy Generation and Utility Services**

- By 2025 100% of RCEA’s power mix will be from a combination of state-designated renewable energy sources—solar, wind, biomass, small hydroelectric, and geothermal—and state-designated net-zero-carbon-emission existing large hydroelectric facilities.
- By 2030 Humboldt County will be a net exporter of renewable electricity and RCEA’s power mix will consist of 100% local, net-zero-carbon-emission renewable sources.

**EQUITY IMPACTS**

The Humboldt’s Electric Future initial report, incorporated as an appendix to the final report, included a discussion of equity considerations. Equity impacts were addressed in the discussion questions presented to the community in the Humboldt’s Electric Future workshops. For example, providing added rate discounts for low-income customers was one of the resource allocation options workshop participants were asked to evaluate.

In addition, the last IRP cycle required load-serving entities to report on local air pollutants and their impacts on disadvantaged communities. Staff anticipates that the State-provided template for the 2024 IRP, which is to be informed by the community input gathered through Humboldt’s Electric Future, will similarly require RCEA to report on this equity-related issue.

**FINANCIAL IMPACT**

The direct costs from the Humboldt’s Electric Future project were minor and included staff time toward project administration and expenses for the rental facility and professional meeting facilitator for the community workshop. Outcomes of the project may ultimately have financial implications in the form of increased or decreased energy procurement costs and revenues resulting from long-term changes to RCEA’s procurement and rate-setting strategies. Any significant changes to RCEA’s procurement strategy would come before the Board for discussion and direction to staff before being implemented.

**STAFF RECOMMENDATION**

Accept final Humboldt’s Electric Future report.

**ATTACHMENTS**

- Humboldt’s Electric Future draft final report

Staff will make a presentation about Humboldt’s Electric Future at the meeting.
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Humboldt’s Electric Future
2023 Final Report

How the Redwood Coast Energy Authority Is Buying and Building Renewable and Local Power Resources
Contents

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Appendix A: Humboldt’s Electric Future Initial Report
Appendix B: Quantitative Analysis Methodology
Appendix C: Workshop Transcriptions
Appendix D: Glossary
I. Executive Summary

Humboldt’s Electric Future is an internal integrated resource planning process that Redwood Coast Energy Authority (RCEA) launched with the intended purpose of obtaining community feedback for incorporation into RCEA’s Integrated Resource Plan (IRP) filing with the California Public Utilities Commission (CPUC). To prime this process, RCEA published an initial Humboldt’s Electric Future report in April 2023 that aimed to educate the community about the power procurement landscape RCEA operates within in advance of engagement via public workshops. That initial report is meant to be a companion document to this final report and is included as Appendix A.

This final report has been reviewed by RCEA’s Community Advisory Committee (CAC). Comments and suggestions from the CAC have been incorporated into the report.

RCEA strives to reduce greenhouse gas emissions associated with its power portfolio, source as much of that portfolio as possible from local renewables, deliver bill savings and programs to its customers, and build its financial reserves. The outcomes of the Humboldt’s Electric Future project are 1) a set of opinions from participating constituents on how to prioritize spending among these priorities, and 2) ranked portfolio options in terms of participant preference that RCEA can use to advise its long-term resource planning and power procurement decision making. This feedback was gathered primarily via two public workshops. The public engagement process and workshop outcomes are described in Section VI, and a full transcript of the feedback received during the workshops is provided in Appendix C.

II. Policies & Goals

This section lays out the existing policies and goals that were not discussed in the initial report, to fill out the picture of all the guidance RCEA follows when making procurement decisions.

a. Board-Adopted Targets

As described in Appendix A, RCEA’s Board of Directors has adopted two goals that currently guide RCEA’s procurement targets: to procure 100% clean and renewable energy by 2025 and 100% local renewable energy by 2030. These goals are for procurement of energy on an annual basis, not time-coincident with hourly load, meaning the total generation in a year adds up to RCEA’s retail electricity sales that year, regardless of whether the generation and load match up hour by hour or how much generation was lost in transmission of the electricity. The interim annual procurement targets leading up to the 2025 and 2030 goals are displayed graphically in Figure 6 of Appendix A. RCEA’s Board of Directors may adjust these renewable and carbon-free energy targets up or down on an ad hoc basis depending on market conditions and status of contracted projects.

Prior to launching RCEA’s Community Choice Energy (CCE) Program in 2017, the Board adopted Guidelines for RCEA’s CCE Launch Period Strategies and Targets, which lays out the overarching goal of maximizing the use of local renewable energy while providing competitive rates to customers, in addition to the following relevant targets over the first five years of the program¹:

1. Financial Targets
   - Annual customer rate savings of at least $2 million per year or $10 million cumulatively.
   - Financial reserves of $35 million for rate stabilization and contingencies.
   - Money retained or redirected back in Humboldt County of $100 million.

¹ The Launch Period Strategies and Targets also include customer program goals, which are not enumerated here.
2. Power Objectives
   - 5% more renewable energy than PG&E.
   - 5% lower greenhouse gas emissions than PG&E.
   - Maximize use of local renewables to the extent technically and economically feasible.

3. Generation Portfolio Targets
   - Around 20 MW of local biomass, contingent on price and market conditions.
   - About 2 MW of existing small hydropower.
   - 6 MW feed-in tariff program for small scale renewables.
   - 15 MW of new utility scale solar, 5 MW of which is local.
   - 50 MW of local onshore wind.
   - Evaluate options for new, local small hydropower.
   - Engage in offshore wind development.
   - Explore wave development opportunities.

b. Risk Management

RCEA’s Energy Risk Management Policy\(^2\) governs day-to-day procurement and risk mitigation activities. The policy, reviewed and once a year and updated as needed, lays out transaction authorization limits, prohibited generation sources, and procurement schedules to mitigate price volatility exposure, among other stipulations. Per the policy, RCEA is prohibited from directly procuring power from any coal, nuclear and Klamath River hydropower facilities. The policy also contains an energy risk hedging strategy, which governs short-term procurement performed on RCEA’s behalf by energy traders, in conjunction with the long-term contracting managed by staff. The hedging strategy lays out schedules that dictate minimum and maximum boundaries on what percentage of RCEA’s needed energy is to be secured under fixed price contracts on a three-year forward basis.

Each month RCEA and its traders review RCEA’s current portfolio of resources relative to annual procurement targets and the energy risk hedging schedules, to decide how much additional energy should be procured as short-term purchases during the following month, typically to be delivered in time increments ranging from one month to one year in duration. Similarly, RCEA reviews its resource adequacy and environmental attribute holdings each month and directs the traders to procure more of these resources as needed to complement the amounts of these resources built into RCEA’s long-term contracts, in order to meet state requirements as well as RCEA’s own Board-adopted renewable energy procurement goals that go beyond the state targets.

c. Regulatory Mandates

In addition to the Renewable Portfolio Standards and Senate Bill 350 procurement requirements described in Appendix A, RCEA is subject to several other regulatory mandates as an LSE that affect our power procurement. Namely, the three mandates for new capacity that the CPUC has issued in the procurement track of the IRP proceeding, to ensure sufficient resources are brought online in the current decade for California to retire its once-through-cooling natural gas and nuclear power plants. Table 1 summarizes RCEA’s capacity procurement obligations coming out of these mandates. The term period shows the years by which the capacity obligation must be operational, with specific tranches of capacity by set deadlines within each period not shown.

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Table 1. RCEA’s IRP Procurement Track Obligations

<table>
<thead>
<tr>
<th>CPUC Decision</th>
<th>Term Period</th>
<th>Capacity Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.19-11-016</td>
<td>2021-2023</td>
<td>10.7 MW</td>
</tr>
<tr>
<td>D.21-06-035</td>
<td>2023-2026</td>
<td>39 MW</td>
</tr>
<tr>
<td>D.23-02-040</td>
<td>2026-2028</td>
<td>14 MW</td>
</tr>
</tbody>
</table>

These capacity obligations must be met with contracts of ten or more years in duration or through owned resources. The capacity must also come from resources that are deemed deliverable by the California Independent System Operator (CAISO), enabling them to sell resource adequacy (i.e., capacity) and be dispatched by CAISO for grid reliability purposes. RCEA has issued several solicitations and executed several contracts specifically to meet these procurement requirements, and expects to conduct more of this procurement in the coming years.

III. Current Resource Portfolio

a. Energy Portfolio

RCEA’s currently contracted, long-term energy portfolio is laid out in Table 1 of Appendix A and includes local biomass, solar and battery storage, and non-local small hydropower, solar and geothermal resources. Figure 1 below shows how these resources contribute to RCEA’s portfolio on the basis of expected generation over time, as the projects currently under development become operational. Several of these contracts expire shortly after 2030, leaving roughly 60% of RCEA’s load uncontracted by 2035.

![Figure 1. RCEA’s Current Energy Generation Portfolio](image)

b. Reliability Capacity Portfolio

While resource adequacy (RA) capacity is a product RCEA is required to procure pursuant to the state’s reliability program, planning for sufficient capacity to meet instantaneous demand is a prudent practice of any utility. RCEA operates within an organized market of the CAISO, which is tasked with balancing the grid in real time to ensure sufficient generating capacity is always available to serve instantaneous...
demand. RCEA’s RA portfolio supplies capacity that CAISO can dispatch for that purpose. RCEA’s currently contracted, long-term RA portfolio is summarized in Table 2 of Appendix A and includes an array of local and non-local resources. Figure 2 below shows how net qualifying capacity (NQC) of each technology contributes to the portfolio over time. The annual average NQC of each resource in the portfolio is estimated using the CPUC’s resource valuation methodology under California’s current RA program as of 2023. RCEA is still determining how this portfolio will be valued under the restructured slice-of-day RA program that is slated for testing and implementation in 2024 and 2025, in which resources are valued on a more granular hourly basis.

![Figure 2. RCEA’s Current Resource Adequacy Capacity Portfolio](image)

IV. Resource Needs

a. Load & Peak Demand Forecast

Two important pieces of information to assess RCEA’s future resource needs are the amount of energy its customers will use over a year (annual load) and the maximum instantaneous power its customers will draw at any given time (peak demand). These advise how much energy generation needs to be acquired to serve annual load and how much capacity is needed to meet peak demand each year, plus the state’s planning reserve margin. RCEA’s hourly load in the charts in what types of resources best fit the uncontracted position, since availability of some renewables and storage varies hourly and seasonally. Figures 1 and 2 show RCEA’s long-term load and peak demand forecasts that advise energy and capacity needs.

b. Resource Diversity

RCEA strives for a diverse energy portfolio that is more resilient in the face of adverse conditions than a portfolio with one or few technology types, projects and project owners. However, the size of RCEA’s load in comparison to typical sizes of utility-scale power projects is more conducive to a blocky portfolio comprised of one or two large projects and several very small projects, as displayed in Figure 2 of
Appendix A. This poses risk to RCEA if one of the large projects is delayed in its development, fails to perform once operational, or is owned by a company that defaults on their credit or goes bankrupt.

California is transitioning away from reliance on natural gas and nuclear power, to run its grid largely from renewables, large hydropower and energy storage. Most natural gas fired generation is dispatchable, meaning it can be powered on or off and ramped up or down as needed because the fuel is able to be stored and utilized at will. Nuclear and some natural gas generation is considered baseload because they can operate around the clock, regardless of time of day or year, but they can’t be turned on and off frequently since they take a long time to ramp up to full operating level. As the state transitions off these resources, there is a need for new dispatchable and baseload resources to replace them, so the grid can be operated reliably. Thus, RCEA strives for a diverse resource portfolio to support reliability while also reducing reliance on net-GHG emitting and nuclear resources. These make their way into RCEA’s portfolio via unspecified system power, which is what the grid operator dispatches whenever RCEA’s contracted resources aren’t generating.

Solar and wind energy are not considered dispatchable or baseload because the fuel is available only during certain times of day, and it can be difficult to forecast and plan around the quantity and timing of their availability. If these renewables are paired with energy storage they can be dispatchable for a limited duration, typically four to eight hours from when the generation is stored, but these projects cost more than standalone solar or wind. Two categories of renewable energy that are considered baseload power are geothermal and bioenergy. Bioenergy is an umbrella term that includes biomass (solid fuel) and biomethane (gaseous fuel). All these aforementioned technologies together, paired with energy storage and large hydropower, will be needed to fully transition the grid away from non-renewable sources.

c. Local Development Potential

In interpreting the Board’s 100% local renewable goal, RCEA staff define “local” as any power plant electrically connected within the Humboldt Local Reliability Area (LRA), which includes Humboldt County as well as some western Trinity County substations and hydro plants. The Humboldt LRA is defined by CAISO as one of the transmission constrained zones in the state, meaning there isn’t enough generation within the area to serve the local load all the time, so power must be regularly imported across the transmission lines from other parts of the region. Figure 3 shows the approximate scale of existing, planned and potentially developable renewable and non-renewable resources within the Humboldt LRA, on the basis of average potential annual energy generation. This figure is based on analysis conducted by the Schatz Energy Research Center (SERC) for RCEA’s 2013 RePower Strategic Plan3, which was updated by RCEA staff to account for current assumptions about certain resources, such as offshore wind and solar.

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Figure 3. Local Resource Development Potential

The following assumptions regarding existing and potentially developable capacity are embedded into Figure 3, along with average capacity factors for each technology type:

- 1.8 GW of offshore wind – there are higher estimates of north coast offshore wind potential but this size was used by SERC as the full development scale for their 2020 offshore wind studies.
- 163 MW of natural gas – the existing Humboldt Bay Generating Station.
- 100 MW of onshore wind – although two proposed projects in the only viable onshore wind location in Humboldt have failed, this resource remains technically viable.
- 35 MW of bioenergy – includes new biogas and biomass capacity in addition to the existing Humboldt Redwood Cogeneration plant in Scotia.
- 50 MW of wave energy – this technology using energy from wind-driven ocean waves is still in the commercial demonstration phase but was included in the RePower study.
- 30 MW of small hydro – includes new capacity supported by RCEA’s hydropower feasibility work and existing hydro capacity in the Humboldt LRA.
- 30 MW of solar – includes expected capacity from RCEA’s feed-in tariff program and future microgrids in addition to RCEA’s Redwood Coast Airport Microgrid and other local solar projects currently under development.

d. Procurement Challenges

All of RCEA’s projects that are currently under development, local and non-local alike, are delayed for one reason or another. These reasons include federal tariff regulations, legacy COVID-era supply chain issues, inflation, labor shortages, interconnection queue backup, permitting delay, and inclement weather. On top of that, decarbonization goals of utilities and state and local governments, coupled with the IRP procurement mandates discussed in Section II, have dramatically increased demand for new projects. The result is a shortage of viable projects, high prices, and unfavorable contract terms that buyers would normally not agree to.

In addition to these macro-level challenges plaguing the energy industry today, several factors have also challenged RCEA in its efforts to contract and develop local projects. These factors include the following:

• Resource constraints – other than offshore wind, renewable development potential in Humboldt is smaller scale than other parts of the state and western interconnect, due to topography, grid constraints and resource viability.
• High price – projects sited on the North Coast typically carry a price premium on top of the already high costs in the current market, due to costs of shipping to this isolated location and the limited local workforce.
• Infrastructure limitations – the Humboldt LRA is connected to the regional grid mainly via two 115 kV transmission lines across rugged, wildfire-prone landscape, and its corresponding distribution system also faces constraints.
• Environmental impacts – Humboldt is home to diverse plants and wildlife, Tribal cultural sites, and prime agricultural land, impacts to which must be avoided or mitigated in project development.
• Community acceptance – As was demonstrated with respect to onshore wind in 2019, community stakeholders have high standards and are willing to say no to projects that do not meet their expectations.
• Limited developer interest – as a result of many of the constraints above, there are not many developers interested in building utility scale renewables in Humboldt, given the higher risks and lower returns.

V. Future Resource Portfolio Options

By 2035, about 40% of RCEA’s energy needs will be met with currently contracted resources. Through the Humboldt’s Electric Future workshops, RCEA sought feedback from community participants on how to fill the uncontracted 60%, as shown in Figure 4.

![Figure 4. 2035 Contracted and Uncontracted Positions](image)

Table 2 shows a summary of the five incremental portfolio options, differentiated by their resource makeup, what goals they achieve and their net present value to RCEA. These portfolios were presented to the attendees at the Humboldt’s Electric Future public workshops to guide their feedback in a preferred energy portfolio exercise. A discussion of the portfolio development and valuation methodology is included in Appendix B. Emissions were not explicitly quantified as part of the Humboldt’s Electric Future project but are quantified in each IRP.
Table 2. Incremental Power Portfolio Options Summary

<table>
<thead>
<tr>
<th>Portfolio Name</th>
<th>Annual Net Revenue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximize Local</td>
<td>$5M</td>
<td>Resources potentially developable in the Humboldt LRA</td>
</tr>
<tr>
<td>Maximize Offshore Wind</td>
<td>$7M</td>
<td>Only Humboldt offshore wind</td>
</tr>
<tr>
<td>Maximize Resource Diversity</td>
<td>$14M</td>
<td>The most different technology types</td>
</tr>
<tr>
<td>Quickest to Renewable</td>
<td>$15M</td>
<td>Primarily existing renewable resources</td>
</tr>
<tr>
<td>Reduce Greenhouse Gas Emissions</td>
<td>$18M</td>
<td>Renewable and carbon-free resources</td>
</tr>
</tbody>
</table>

Figure 5 shows the five portfolios broken down by resource type as a percent of RCEA’s power mix on the basis of annual energy generation. Figure 6 shows how each of the portfolios, including incremental and contracted resources compare against RCEA’s load on an hourly seasonal basis.

Figure 5. Resource Mix of Incremental Power Portfolio Options
In all portfolio options, the large amount of solar production in the middle of the day is attributed mainly to currently contracted resources. For RCEA to match these portfolios to its hourly load, large amounts of energy storage would need to be contracted to store the excess solar energy during the day and discharge it at night.

One CAC member who reviewed this report noted that RCEA could have avoided making a long-term commitment to biomass in 2021 for SB 350 compliance by instead procuring an equivalent amount of solar energy. The figures above illustrate that additional solar procurement would have further exacerbated RCEA’s future mid-day energy glut and require RCEA to invest in additional storage in order to match supply to load hour-by-hour.

VI. Public Engagement

a. Initial Groundwork

Planning and Outreach

An interdepartmental team of RCEA staff, composed of staff members from Power Resources, Community Strategies, and Demand Side Management, began meeting in March of 2023 to plan and coordinate the public engagement strategy. The team met to decide on the timeline of events,
determine the specific types of feedback to solicit from the community, and contract a third-party facilitator to assist in planning and conducting the workshops.

RCEA staff worked with the facilitator to craft the workshop exercises, and maintain an accountable and clear process to objectively solicit input from the participants. In addition, several volunteers from RCEA’s Community Advisory Committee (CAC) participated as co-facilitators for the workshops, to bolster the stakeholder involvement outside of RCEA staff.

Two separate workshops were held, an in-person event and an online webinar. At the in-person workshop, food was provided for participants and childcare was offered by RSVP, in an effort to boost participation by community members who wouldn’t otherwise be able to attend.

RCEA staff publicized the events through social media, and created a web page on RCEA’s website with information for the events at https://redwoodenergy.org/humboldts-electric-future/. On the web page, community members could sign up for notifications, RSVP for the events, and view and download the Humboldt’s Electric Future Initial Report. RCEA also created a dedicated e-mail address and mailing list to communicate with community members about Humboldt’s Electric Future, at humboldts-electric-future@redwoodenergy.org. The meetings were included on local calendars like the Lost Coast Outpost and NCJ. A newsletter was sent to our subscribers and the targeted stakeholder list, as well as NorCAN list serve. There were no paid advertisements, but a TV interview and two radio interviews were conducted.

Initial Report

Prior to the workshops, RCEA staff prepared the Humboldt’s Electric Future Initial Report. The purpose of the initial report was to explain, “how we get our electricity today, what goals our Board of Directors has set, and what we need to do to comply with state regulations on power procurement”, to give participants background information on the kinds of decisions, and the constraints upon them, for which RCEA would be seeking community input. The initial report was emailed to individuals who signed up for the Humboldt’s Electric Future mailing list, and is included in this report as Appendix A.

b. Public Workshops

The June 5, 2023 in-person workshop was attended by 24 members of the public, while 26 people attended the June 8, 2023 online workshop. During the in-person and online public workshops, participants engaged in several exercises to elicit their values and preferences on different matters related to RCEA’s allocation of resources and future planning. The main question areas were: (1) financial resource allocation, (2) the value of locally produced energy, (3) the challenges in meeting energy needs equitably, affordably, and locally, and (4) preferences around specific energy resource portfolios.

Financial Resource Allocation

RCEA operates as a not-for-profit local government joint powers authority, so all Community Choice Energy revenues are reinvested in the community. Participants were invited to share their preferences on how that revenue is allocated across options from rate discounts, customer programs, building financial reserves, development of local generation projects, and any other option they considered important. In addition to discussing these topics in small groups, attendees participated in a resource allocation activity in which they spent ten tokens among each of the aforementioned categories, which enabled RCEA staff to quantify the participants’ preferences regarding financial resource allocation.
The Value of Locally Produced Energy

Since locally produced energy often comes at a higher price than energy from projects outside of Humboldt, participants were invited to weigh in on how much value they place on a local power portfolio versus other competing values, such as affordability, rapid decarbonization, and other goals.

Challenges of Meeting Energy Needs Equitably, Affordably, and Locally

Tying many of these themes together in an open-ended question, participants were asked to give their thoughts on what the challenges are in providing affordable and equitable energy to all Humboldt residents, while still prioritizing local generation development.

Selecting a Preferred Energy Resource Portfolio

Finally, participants were asked to rank a sample of five different resource mixes, allowing them to indicate their preferences on how RCEA can fill the roughly half of the portfolio not already under contract within the timeline under consideration. Each portfolio mix presented the proportion of each type of resource, and the amount of annual net revenue (i.e. revenues minus costs) each scenario would provide for RCEA to reinvest in the community. The five portfolio mixes were: Maximize Local, Quickest to 100% Renewable, Maximize Resource Diversity, Maximize Offshore Wind, and Reduce Greenhouse Gas Emissions. The generation profiles of each of these portfolios against RCEA’s forecasted load profile are displayed graphically in Section V.

Workshop Outcomes

In both the in-person and online workshops, feedback from the attendees was gathered via three activities: small group discussions, a resource allocation exercise, and a preferred energy portfolio exercise. In the resource allocation exercise, participants were asked to use a token rating system to indicate their preference for each of the following five priorities: lower electricity rates for all, lower electricity rates for low-income households, local energy development, customer programs, and financial reserves. In both the in-person workshop and the online webinar, the majority of participants weighed local renewable energy development as their top priority over the other options. Small group discussions also yielded other noteworthy priorities for resource allocation, such as more rebates and incentives for electrifying buildings, emission reduction and energy conservation programs, building local microgrids and RCEA owned resources, improving local infrastructure, electric vehicle charging stations, and community education programs.

When considering the value of locally produced energy, workshop participants felt strongly about wanting to see investment in local development, but generally agreed that reducing greenhouse gas emissions quickly was more important than a 100% locally produced renewable portfolio. Participants felt that producing more energy locally would incentivize job creation, provide community resilience and localized ownership of resources, however there were concerns of scalability, affordability, and carbon neutrality.

Workshop participants were asked their opinions on what they believe are the challenges of meeting our energy needs with local resources, and many agreed on a few key points. The use of biomass as a renewable energy source concerned many people due to greenhouse gas and criteria pollutant emissions. When considering different resource portfolios, many were apprehensive about including biomass at all in long-term procurement plans. Other concerns were the portfolio diversity and reliability during peak hours, scalability, infrastructure challenges to importing and exporting energy, as
well as access to the capital required to build local renewable energy projects. Many also voiced strong concerns about overall affordability if RCEA was to adopt a 100% local power portfolio.

In the preferred energy portfolio exercise, participants were asked to rank the five portfolio options described in Section V on a scale from 1-5, with 1 being the least preferable, and 5 being the most. Staff explained that the portfolio options were not meant to represent RCEA’s entire power mix, only the marginal portion not already under contract. There was a strong preference in both workshops for reducing greenhouse gas emissions over any other option. Community members were concerned about the generation sources in the local portfolio option and were also disapproving of the portfolio that maximized offshore wind. While neither was the most popular option, both getting to 100% renewable power mix as soon as possible and maximizing resource diversity were seen as favorable in both workshops.

VII. Action Plan

a. Near-Term Planning & Procurement

RCEA aims to procure much of the energy products it requires, including energy, resource adequacy, and environmental attributes (associated with renewable energy and carbon-free energy) through long-term contracts. This helps to manage financial risk by ensuring known cost for future energy procurement, and is also necessary for regulatory compliance reasons, as described in Section II. RCEA will continue to seek long-term contracts for new, renewable and local resources that meet Board and State planning targets and goals through its various power procurement processes. Additionally, RCEA will continue to procure short-term products pursuant to its energy risk hedging strategy to fill in the gaps while the majority of the portfolio is secured via long-term contracts. Beyond these, RCEA plans to take the following actions:

• Continue to express a preference for local projects in power solicitations, but don’t procure local at the expense of other priorities.
• Plan for a portfolio that reduces emissions and maximizes value to RCEA and its customers.
• Assess cost and feasibility of achieving 24/7 around-the-clock renewables. Some CAC members expressed support for making around-the-clock renewables an explicit RCEA goal.
• Seek alternative local renewable power sources to biomass that have no emissions after the current contract expires.
• Plan to procure a modest amount of offshore wind depending on price and viability, but not to fill the entire open position with it.
• Provide more education to the community regarding RCEA’s procurement and resource planning.

b. 2024 Integrated Resource Plan

The input collected from the public through Humboldt’s Electric Future is intended to inform RCEA’s Community Advisory Committee and Board of Directors, who in turn will give direction to RCEA staff as they prepare RCEA’s IRP for submission to the CPUC. Timing of the 2024 IRP is at the discretion of the CPUC but each IRP typically falls due in the third or fourth quarter of each even-numbered calendar year. LSEs including RCEA are required to submit an IRP to the CPUC every two years, so the next Humboldt’s Electric Future process in 2025 will inform the 2026 IRP. More information about RCEA’s IRP process is on page 16 of Appendix A.
RCEA has utilized a top-down approach to selecting new resources for its IRP, driven by the local Board and community’s stated goals and values, as well as market availability and new resource opportunities. RCEA’s relatively small load and significant contractual commitments to date, in combination with the constraints the portfolio is subject to supports utilization of this approach over a bottom-up analysis, starting from production cost modeling that serves RCEA’s load at the least cost with any technology, while meeting state regulatory compliance. This top-down approach allows RCEA to choose specifically what resources with which to fill most of its open position over the IRP planning horizon.

In each IRP process, RCEA typically analyzes multiple candidate portfolio options before selecting one for recommendation to the Board. The 2024 IRP candidate portfolios will refine and build off the portfolios developed for the Humboldt’s Electric Future workshops, described in Section V, within the constraints of the CPUC’s IRP process in 2024.

c. 2025 Humboldt’s Electric Future Process

RCEA will continue to engage the public in future Integrated Resource Plan development cycles. The public engagement methods used by RCEA in 2024 via in-person and online workshops and solicitation of emailed comments produced an enthusiastic response. However, we recognize that we are only hearing from a relatively small and self-selected portion of RCEA’s customer base participated, who may not be representative of opinion in the broader community in terms of opinions and preferences on energy policy. RCEA has begun to explore alternative approaches that might be used in 2025 to more fully capture input from a broad range of community stakeholders.

Earlier this year, staff from the Humboldt Area Foundation connected RCEA staff with two Cal Poly Humboldt faculty from the Department of Psychology and Department of Politics. They presented the concept of a Citizens’ Assembly and Lottery-Selected Panels, deliberative tools promoted by the Oregon-based organization Healthy Democracy. This approach was recently used with Healthy Democracy’s support to facilitate community discussion and decision-making on future uses for the Sonoma-Marin Fairgrounds in Petaluma.

The approach involves doing mass mailings to recruit panelists from across the community, selecting a set of interested candidates who represent community demographics. Panelists are provided with a stipend and asked to participate in several hours of in-depth topic orientation, information gathering, deliberation, and development of recommendations, somewhat akin to how a grand jury operates. RCEA staff have met and corresponded with Healthy Democracy’s program co-director to learn more about how such an approach could be deployed at a scale that would be effective and affordable for RCEA’s needs. Staff will continue to research alternative public engagement methods and will bring the CAC and Board recommendations to consider in time for use in 2025.
Appendix A: Humboldt’s Electric Future Initial Report
Humboldt’s Electric Future
April 2023

Initial Report

How the Redwood Coast Energy Authority is Buying and Building Local, Renewable Power Resources ...and How You Can Participate
Preface

Dear Community Member:

Redwood Coast Energy Authority is the public power provider for approximately 92% of Humboldt County’s eligible homes and businesses. We are striving to provide 100% clean and renewable power by 2025, and get as much as possible of that power from local sources by 2030. We are looking for community input on how to get there.

During 2023 we are engaging the community in a process we call Humboldt’s Electric Future. This report explains how we get our electricity today, what goals our Board of Directors has set, and what we need to do to comply with state regulations on power procurement. Within this framework, there is still ample opportunity for community members to have their voices heard on important decisions such as:

- Which clean and renewable resources should we maximize in our power portfolio?
- What criteria should we use in siting local renewable energy projects?
- How should we balance the community’s priorities, such as clean energy, local economic development, and low utility rates?

We will be doing community engagement later this year to collect input on these and other questions. Please visit https://www.redwoodenergy.org/humboldts-electric-future to sign up for event notifications and learn more about how you can participate in Humboldt’s Electric Future.

Sincerely,

Matthew Marshall

Executive Director
RCEA as Humboldt County’s Clean Energy Leader

Redwood Coast Energy Authority (RCEA) is a local government Joint Powers Agency whose members include the County of Humboldt; the Yurok Tribe; the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad; and the Humboldt Bay Municipal Water District. RCEA’s mission is to develop and implement sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient, and renewable resources available in the region for the benefit of the member agencies and their constituents.

Beginning in May 2017, Humboldt County customers were automatically enrolled into RCEA’s new Community Choice Energy (CCE) program and served by RCEA’s default electricity service, REpower. RCEA customers interested in receiving electricity service with a higher renewable energy content can “opt up” into RCEA’s 100% renewable electricity service option, REpower+, costing an additional $0.01 per kilowatt-hour (kWh).

RCEA works in partnership with the local utility company, Pacific Gas & Electric (PG&E). While RCEA assumes responsibility for procuring and developing power (the “generation” component of the PG&E bill) on behalf of participating customers, PG&E continues to deliver your electricity, maintain the power lines and electrical grid, and handle customer billing, including the charges for the generation procured by RCEA.
RCEA's Strategic Plan and Community Choice Energy start-up procurement guidelines

RePower Humboldt, RCEA's Comprehensive Action Plan for Energy\(^1\) (Strategic Plan), is intended to support achieving RCEA’s mission through various strategies and initiatives. The Strategic Plan was last updated in 2019 and includes the following areas of emphasis:

**Regional Energy Planning & Coordination:** RCEA will take a leadership role to develop and advance strategic regional energy goals through economic development, funding, planning efforts, and education. This work will be done in coordination with RCEA’s member governments, other local public agencies, local tribes, and other public and private stakeholders.

**Integrated Demand Side Management:** RCEA will use an Integrated Demand Side Management approach to develop distributed energy resources and reduce energy consumption in the residential, commercial, industrial, agricultural, and government sectors and to align customer energy use with variable clean and renewable energy supplies. RCEA will prioritize efforts that enhance local energy resiliency and independence.

**Low-Carbon Transportation:** RCEA will decarbonize regional transportation through efforts to reduce vehicle miles travelled, increase advanced fuel vehicles adoption and fuel efficiency, and expand advanced fuel infrastructure.

**Energy Generation & Utility Services:** RCEA will address Humboldt County’s supply-side energy needs through our existing CCE program and development of new programs and initiatives.

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How does RCEA buy power for our customers?

RCEA buys power through a mix of short- and long-term contracts. However, we are moving toward having more of our procurement under long-term contracts as a means of managing risk. In a typical multi-year contract between RCEA and an owner/operator of an energy generator, the energy is sold to the buyer at a fixed or market-indexed price, along with any other power products the project is eligible to sell, such as renewable certificates that document the value of putting clean energy onto the grid, or capacity products such as resource adequacy (see next page).

What is the Renewables Portfolio Standard?

The Renewables Portfolio Standard (RPS) is one of California’s key programs for renewable energy advancement throughout the State. The program sets continuously escalating renewable energy procurement requirements for retail sellers of electricity, such as RCEA. The California Public Utilities Commission (CPUC) enforces the RPS program, while the California Energy Commission (CEC) is responsible for the certification of renewable generation facilities. Figure 1 shows what percentage of an electricity seller’s portfolio must be made up of eligible renewable energy sources each year, which is demonstrated using Renewable Energy Certificates (RECs).

Figure 1. California’s Renewables Portfolio Standard (RPS) Requirement Timeline
RCEA’s Electric Portfolio

RCEA is committed to providing power that has more renewable energy and lower greenhouse gas (GHG) emissions than what local energy users would otherwise receive. RCEA has set out to provide our customers with 100% renewable and carbon-free energy by 2025 and 100% local renewable energy by 2030. Specifically, our Strategic Plan states that “By 2030 Humboldt County will be a net exporter of renewable electricity and RCEA’s power mix will consist of 100% local, net-zero-carbon-emission renewable sources.” In this context, RCEA defines “local” as resources located within the Humboldt Local Reliability Area, an area that roughly corresponds to Humboldt County, with some allowance for substations and hydropower plants that serve loads on both sides of the county line.

When our CCE program was first established, RCEA entered into a contract with Humboldt Sawmill Company to provide local biomass power generated by burning wood waste at its Humboldt Redwood plant in Scotia. The rest of our power initially came from short-term contracts for renewable and non-renewable resources across the western states. RCEA has issued at least one solicitation each year since 2019 targeted at procuring long-term renewable contracts to help meet RCEA’s procurement requirements and the clean energy goals noted above. Table 1 is a breakdown of all the renewable energy projects RCEA currently has in our power portfolio, including operational projects and projects in varying stages of development.
RCEA also has agreements with PG&E to receive energy from two pools of resources, one comprised of hydroelectric plants and the other a mix of renewable energy sources. These resources are no longer needed by PG&E since a large portion of their former load is now served by RCEA and other community choice energy programs.

**Carbon-Free:** Since 2020, RCEA has been receiving carbon-free energy from PG&E’s portfolio of large hydroelectric facilities. The contract is executed on an annual basis at RCEA’s discretion. The amount of energy RCEA receives varies year to year depending on the hydrologic conditions throughout California, but in 2021 we received approximately 33,700 MWh of carbon-free energy.

**Renewable Energy:** Since 2023, RCEA has been receiving renewable energy from a variety of PG&E’s eligible renewable sources, including biomass, digester gas, landfill gas, geothermal, small hydro, solar, and wind technologies. RCEA expects to receive approximately 51,300 MWh in 2023, with the amount gradually declining every year as resources retire until the contract expires in 2045.

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2 Hybrid resources are a combination of energy generators and energy storage systems. In RCEA’s case, all of our hybrid resources utilize solar as the energy generation.
In addition to our renewable energy contracts, RCEA has also entered into a number of contracts for aggregated customer demand response and standalone battery energy storage as shown in Table 2. While these do not generate additional energy, they provide RCEA with some of our required resource adequacy and allow us to strategically balance the above generation resources with customer demand in real time, helping ensure grid reliability as we transition to using more intermittently available renewable energy resources such as wind and solar.

Table 2. RCEA’s Long-Term Resource Adequacy Agreements

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Resource Type</th>
<th>Project Location</th>
<th>Initial Operation Date</th>
<th>Contract Length</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leapfrog</td>
<td>Demand Response</td>
<td>CA statewide</td>
<td>2021</td>
<td>10 Years</td>
<td>5.5</td>
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<td>Lithium Ion Battery</td>
<td>Tierra Buena, CA</td>
<td>2022</td>
<td>10 Years</td>
<td>2.5</td>
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<tr>
<td>Storage*</td>
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<td></td>
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<td>Lithium Ion Battery</td>
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<tr>
<td>Goal Line Energy</td>
<td>Lithium Ion Battery</td>
<td>Escondido, CA</td>
<td>2025</td>
<td>15 Years</td>
<td>2.0</td>
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<td>Storage</td>
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<td>Tumbleweed Energy</td>
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<td>Storage</td>
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<td></td>
</tr>
</tbody>
</table>

*local resource

As shown in Tables 1 and 2, different resources enter RCEA’s portfolio in different years and persist for longer or shorter terms, eventually needing to be extended or replaced with other resources. See Figures 2 and 3 for a conceptual illustration of how our various contracts make up our past, present, and future energy portfolio.
Figure 2. RCEA Energy Portfolio Timeline

Future Long-Term & Short-Term Procurement
(Offshore wind, etc.)

Feed-In Tariff Solar Projects

CC Power Geothermal (Fish Lake and Ormat Portfolio)

Foster Clean Power Solar

PG&E Voluntary RPS Allocation

Sandrini Solar

Redwood Coast Airport Microgrid

Cove Hydroelectric

DG Fairhaven Humboldt Sawmill Co. (Local Biomass)

Humboldt Sawmill Co. (Local Biomass)

Future Need

Scale Approximate
Figure 3. RCEA Resource Adequacy Timeline
Despite our Board’s goal that all our energy come from local resources by 2030, RCEA has found it necessary for compliance with state laws and regulations to enter into some contracts for non-local resources that extend beyond 2030. One state law, Senate Bill 350, requires at least 65% of our renewable energy required under the CA Renewables Portfolio Standard to come from contracts of ten years’ duration or longer, or from resources we own. In addition, the CPUC has issued a series of procurement orders aimed at ensuring grid reliability; contracts compliant with these orders also need to be of minimum ten years’ duration. Figure 4 illustrates how RCEA is currently positioned to meet customer demand through a combination of short-term and long-term contracts.

![Figure 4: RCEA’s Progress Towards Long-Term Procurement](image)

Each solicitation issued by RCEA since 2019 has stated a preference for local projects, but the great majority of offers received have been for non-local projects. RCEA has had to weigh the importance of local procurement against several other factors, including cost, developer qualifications, and project risk. In addition, RCEA often finds itself competing for few available new resources when other energy providers across the state are working on the same schedule to fulfill the same CPUC-ordered procurement. At times, this has led to RCEA committing to non-local projects as the only alternative to non-compliance.

Some of RCEA’s contractual commitments needed for compliance and risk management purposes are at odds with the goal of 100% local procurement by 2030. However, as noted above RCEA’s strategic plan couples that goal with the aim that Humboldt County become a “net exporter of renewable electricity.” That goal could be fulfilled if other power providers, such as RCEA’s sister CCE agencies across the state, procure offshore wind or other Humboldt County renewable resources in sufficient
quantities to offset RCEA’s purchase of non-local renewable energy. Given that the developable wind resource off the Humboldt coast is much larger than our local electricity demand, this scenario is very likely to come to pass within the coming decade.

Figure 5. Redwood Coast Airport Microgrid

Most of RCEA’s power is procured through contracts with power project developers or operators. However, RCEA has invested in one important RCEA-owned energy project. In 2021, RCEA began commercial operation of the Redwood Coast Airport Microgrid (RCAM), a solar plus energy storage facility at the California Redwood Coast Airport in McKinleyville. RCAM is California’s first 100% renewable energy, front-of-the-meter3, multi-customer microgrid. The microgrid provides energy resilience for the regional airport and U.S. Coast Guard Air Station and electricity to RCEA’s customers. Tax provisions in the federal 2022 Inflation Reduction Act make it more financially attractive for public agencies like RCEA to develop their own renewable energy projects, which may lead to RCEA developing more projects of this type.

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3 “front-of-the-meter” means that this resource is serving the grid at large, rather than just offsetting load at one customer’s site like a “behind the meter” rooftop solar system does.
Over the first six years of operating RCEA’s CCE program, our power portfolio has evolved. While we have sought to advance gradually toward our 100% renewable goal, we have had to respond to external challenges by temporarily adjusting our procurement. During 2020 and 2021, short-term financial challenges required RCEA to temporarily reduce our renewable energy content to keep customer rates competitive. These financial challenges included increased wholesale power costs, lower than expected PG&E electric rates that are used to benchmark RCEA’s own rates, and delayed or reduced customer revenues due to financial hardships during the pandemic.

The financial outlook in 2022 and future years has improved, allowing RCEA to resume our trajectory toward 100% renewable and carbon-free energy by 2025 and 100% local renewable energy by 2030. Figure 6 shows our power mix to date and our projected power mix to meet our 2025 and 2030 goals. Note RCEA’s 2022 power mix is a preliminary estimate using data received as of the publication of this document.

![Figure 6. Past and Projected RCEA Power Mix](image)

For the time being, RCEA’s power mix includes unspecified power in addition to renewable and carbon-free resources. Unspecified power cannot be traced back to a specific source. It tends to be less expensive and have greater emissions than renewable and carbon-free power. RCEA currently includes some power from unspecified sources in its portfolio to keep customer rates affordable. As we continue to add long-term renewable energy contracts to RCEA’s power portfolio, we plan to gradually phase out our reliance on unspecified sources of power.
Greenhouse Gas Emissions

RCEA’s GHG emissions have mostly been below the California utility average. However due to the short-term financial challenges in 2020 and 2021, the temporary reduction of our renewable and carbon-free energy procurement resulted in higher than usual GHG emissions. Also, a regulatory change took effect that ascribed GHG emissions to energy RCEA purchased from out-of-state renewables. As mentioned previously, RCEA’s finances improved in 2022. This, along with procuring only in-state renewables in 2022, enabled us to get back on track to reducing GHG emissions associated with our energy mix, as shown in Figure 7. Please note that the 2022 GHG emissions shown in Figure 7 are a preliminary estimate. However, we will have RCEA’s final GHG emissions for the 2022 calendar year published in summer 2023.

Figure 7. RCEA’s Historic Greenhouse Gas Emissions (lbs CO2e/MWh)
RCEA’s Rate Structure

To date, RCEA has offered standard rates to our customers that parallel PG&E’s generation rates with a Board-approved discount. Currently, RCEA customers receive a half a percent discount from what they would otherwise pay PG&E. This type of rate structure indexed to the local utility’s rates is common among CCAs across California.

While RCEA’s rate structure ensures that every customer will pay less than they would as a PG&E customer, it doesn’t accurately represent the true cost of serving our customer base. This is because PG&E’s rates reflect their cost to serve millions of customers across Northern California, plus an approved rate of return for their shareholders. Humboldt County has a unique climate, economy, and demography that determines our customers’ energy consumption patterns. Most of RCEA’s customer load is located on the temperate coast with more demand for winter heating than summer air conditioning, while PG&E’s load is typically the opposite. Coupling RCEA’s rate structure with PG&E’s means our operational budget for power procurement and customer energy programs must fit within the confines of the current rate structure. Building financial reserves over time will allow RCEA more short-term flexibility in setting its rates.

An accelerated timeline toward 100% renewable energy, or a decision to procure more premium priced renewable resources would drive up RCEA’s operating costs. This could require RCEA to decouple our rates from PG&E’s to appropriately cover the operational costs for meeting our procurement goals and serving our customers. Resulting rates could turn out to be lower or higher than PG&E’s, depending on our comparative power procurement costs and other operating expenses.

Some CCE providers in California have begun to adopt rates based on their actual cost of service, rather than using a set discount relative to the investor-owned utility’s rates. If RCEA were to adopt such a cost-of-service rate-making model and the resulting rates were higher than PG&E rates, we would face the risk of customers opting out of RCEA service. We would also need to consider all the challenges a utility faces in developing its own rates, including an added analytic burden and potential shifting of costs among customer classes.
REpower and REpower+ Participation

In 2017, when RCEA began serving customers in Humboldt County, all customers\(^4\) were automatically enrolled into RCEA’s REpower electricity service. However, approximately 1.4% of customers have “opted-up” into REpower+, RCEA’s 100% renewable electricity service. RCEA monitors the number and load of opted up customers and procures additional renewable energy to cover this load.

The Customers We Serve

RCEA provides electricity to 92% of eligible customers in RCEA’s service area. RCEA’s customer base differs from what is typically seen across the State of California. In RCEA’s service area, residential customers make up the largest electricity use sector, while for the state as a whole, commercial electricity use is dominant. Figures 8 and 9 are a comparison of how RCEA’s customer base differs from the State as a whole.

\(^4\) Some large commercial and industrial customers who have special contracts with third-party electricity providers through a statewide program called Direct Access were not enrolled.
Are the renewable electrons procured by RCEA actually delivered to my home or business?

Humboldt County is connected to a regional electric grid that spans across the western United States and has energy generators contributing electricity at various locations. When RCEA procures energy, we’re paying a particular generator to put it into the grid at their plant, wherever it may be.

What electrons are actually delivered to our customers is not exactly the same as what we buy, since electricity flows by the path of least resistance to the customer load that’s physically closest to the generation source. So, a unit of electricity used in Humboldt most likely originated at one of the plants here in the county, which are currently powered by natural gas, biomass, or solar. But electrons circulating on the grid are all the same, whether they are generated with renewable or non-renewable resources. It’s similar to how your dollars can be deposited at a bank or credit union, then an equivalent amount of dollars can be withdrawn from an ATM thousands of miles away; it doesn’t matter to you or the bank that those bills are different than the ones you deposited.

What’s important in terms of cleaning up the grid is that we’re gradually ensuring more of the energy going in comes from clean and renewable sources. In this way, Humboldt County ratepayer dollars are directly reducing total GHG emissions via renewable and carbon-free energy purchased by RCEA.

It is also RCEA’s goal to generate as much of Humboldt’s electricity as possible using local renewable resources, thereby reducing reliance on the Humboldt Bay Generating Station natural gas plant and imported fossil energy. As we make that transition, more of the electricity we buy will be what’s consumed close to the source by our own customers. This is important for local economic development, and for local electric reliability as we transition away from natural gas in a grid constrained region. It’s also important in terms of local air quality, as we gradually replace today’s power plants that combust natural gas or biomass with non-emitting resources. But it’s less important in terms of GHG emissions, for which the benefit is essentially the same wherever they can be reduced on the planet.
California’s Integrated Resource Planning (IRP) Process

Integrated resource planning is a standard long-term planning exercise conducted periodically by utilities to assess resources needed to meet customer energy demand at affordable rates. In California, load-serving entities including RCEA are required to submit an Integrated Resource Plan (IRP) to the CPUC every two years. These plans also address non-energy requirements that the LSE must meet, such as system reliability, dependence on unspecified system power, renewable resource integration, GHG emissions targets, and consideration of impacts that power plants may have on disadvantaged communities.

RCEA’s 2022 IRP

RCEA filed its biennial IRP with the CPUC on November 1, 2022. The plan details RCEA’s electricity procurement plans through 2035 in keeping with statutory requirements for grid reliability and GHG emissions targets. RCEA is expected to submit its next IRP to the CPUC in 2024.

The CPUC requires load-serving entities like RCEA to submit a comprehensive package as part of the IRP process. The CPUC provides load-serving entities with spreadsheets to enter our proposed power portfolio(s) and demonstrate the portfolio’s compliance with the State’s grid reliability and GHG emissions targets. In 2022, RCEA submitted a detailed narrative describing our proposed portfolio, and two sets of spreadsheets, corresponding to two different 2030 and 2035 GHG emission scenarios.

RCEA’s 2022 and prior IRP materials are available for viewing on our website. However, some of the information required by the CPUC to be included in the resource data templates is market-sensitive and therefore redacted from the public versions. Learn more by visiting: https://redwoodenergy.org/integrated-resource-plan/.

Figure 10. RCEA’s Integrated Resource Planning Process

Figure 10 represents the cyclical IRP process that RCEA undertakes every two years. First, RCEA and other LSEs engage in the regulatory process via the CPUC’s IRP proceeding to understand and critique state planning assumptions and analysis methods. From this, the CPUC issues final guidance, requirements, and templates for the compliance filing, which staff review along with RCEA policies, plans and programs that will all advise development of the IRP portfolio. To develop the portfolio, staff
review existing and planned resource commitments and consider new resources to fill out the portfolio over time in different configurations, referred to as candidate portfolios. Then, RCEA’s consultant (in consultation with staff) analyzes the economic performance of each candidate portfolio, and the options are presented to the RCEA Board along with a portfolio recommendation. After Board input and approval, RCEA submits the IRP to the CPUC, whose staff combine all LSE IRPs into one statewide portfolio that is used for grid planning, and the cycle is then repeated two years later.

**Equity Considerations**

Many communities disproportionately lack access to clean, reliable, and affordable energy due to race, nationality, income, or geographic location. Currently the U.S. Department of Energy is working toward providing disadvantaged communities with 40% of the overall benefits from federal investments in climate and clean energy. When it comes to the energy system, many communities face serious challenges.

<table>
<thead>
<tr>
<th>Energy Insecurity</th>
<th>Energy Poverty</th>
<th>Energy Burden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong> The hardships households face when meeting basic needs.</td>
<td><strong>Definition:</strong> The lack of access to reliable energy itself.</td>
<td><strong>Definition:</strong> The percentage of household income spent on energy expenditures.</td>
</tr>
<tr>
<td><strong>Example:</strong> Not using the air conditioning during a heatwave because of energy costs.</td>
<td><strong>Example:</strong> Disproportionate exposure to power outages experienced by marginalized communities.</td>
<td><strong>Example:</strong> Communities of color and low-income families direct a higher share of their income toward energy costs.</td>
</tr>
</tbody>
</table>

Energy justice is aimed at overcoming these challenges by reducing energy costs and burdens on low-income customers, avoiding disproportionate impacts, guaranteeing the equitable distribution of the benefits of energy generation and transmission, ensuring access to reliable and clean energy, and providing community participation in energy related decision-making and development.

To help overcome some of these challenges, RCEA’s Board approved a Racial Justice Plan in 2022, which is designed to remove racial disparities among communities in accessing energy services, and increase access to clean energy, energy efficiency, and healthy communities. In relation to RCEA’s CCE program, the Racial Justice Plan includes the following commitments:
Tribal engagement
- Diversity, equity and inclusion in program selection design and implementation
- Energy justice in power procurement and energy resource development
- Collaboration with other California CCE providers and other external organizations on environmental justice and energy equity matters

Achieving True Round-the-Clock Renewable Energy

In keeping with the current regulatory framework and common accounting methods for clean energy procurement, RCEA has set its procurement goals on an annual basis. If our goal is a 40% renewable portfolio, we purchase enough renewable energy over the course of a year to meet 40% of our customer load. This is an important step toward a truly clean energy portfolio, but it doesn’t get us all the way there. For example, if we were to procure that 40% by buying only solar energy, we would not actually be providing renewable energy to our customers at night when the sun isn’t shining, so we would need to purchase energy from other, potentially more polluting, sources to meet customer load round-the-clock.

Aiming for a 100% renewable portfolio on an annual basis is an ambitious goal RCEA and other electricity providers have set, but it does not ensure a completely clean portfolio every hour of the year. Years before launching our CCE program, RCEA in partnership with the Schatz Energy Research Center at Cal Poly Humboldt and PG&E performed a California Energy Commission-funded study on the feasibility of transitioning Humboldt County to a renewable energy-driven economy. The study used detailed computer modeling to identify a pathway to meeting loads in all seasons and times of day with renewable energy, using natural gas for generation only minimally to fill in gaps due to intermittency of wind and solar resources. At the time, battery energy storage at utility scale was not yet considered cost-effective. Inclusion of energy storage in the scenarios analyzed could further reduce dependency on fossil fuels.5

More recently, some clean energy leaders, notable among them Peninsula Clean Energy, the CCE agency serving San Mateo County, have set goals to serve their customers with 100% renewable energy around-the-clock, by carefully analyzing what renewable energy, energy storage, and other resources they would need to procure to meet their load in every hour of the year without having to call on fossil fuel power plants. Peninsula Clean Energy concluded that truly meeting a 100% renewable goal every hour of the year would be cost-prohibitive. Their study recommends procuring a portfolio

5 http://schatzcenter.org/docs/RePower_Humboldt_Strategic_Plan.pdf
that can meet the 100% renewable goal 99% of the time. In Peninsula Clean Energy’s case, this is estimated to result in only a 2% cost increase over a portfolio that merely meets the goal of 100% renewable on an annual basis.\(^6\)

RCEA has embarked on our own analysis to study the costs and benefits of a round-the-clock renewable energy portfolio. We will share our findings as they become available.

**RCEA Goals vs Constraints**

As highlighted throughout this document, there are numerous factors for RCEA to consider when supplying our customers with energy. As we strive to achieve our various goals, we’re required to strategically navigate various constraints, whether they be internally or externally imposed. As represented in Figure 11, there are times when our goals are in conflict with the constraints that we operate within, but we’re determined to overcome these challenges through innovative solutions and adaptive strategic planning.

\(^6\) [https://www.peninsulacleanenergy.com/achieving-24-7-renewable-energy-by-2025/](https://www.peninsulacleanenergy.com/achieving-24-7-renewable-energy-by-2025/)
Figure 11. Goals & Constraints
Conclusion

RCEA appreciates your interest in planning Humboldt County's clean electricity future. We will offer opportunities during 2023 for the public to provide input to be incorporated as feasible in RCEA’s 2024 integrated resource plan.

Please visit https://www.redwoodenergy.org/humboldts-electric-future to find updated information and to sign up for event notifications.

You can also email us at Humboldts-Electric-Future@RedwoodEnergy.org any time with comments or questions about RCEA's Community Choice Energy program.

Luna Latimer, RCEA Community Advisory Committee member, indicates her priorities during RCEA's 2019 Comprehensive Action Plan for Energy update
Appendix B: Quantitative Analysis Methodology

The purpose of the portfolios developed for Humboldt’s Electric Future was to present a differentiated set of potential scenarios to be ranked by workshop participants, thereby providing RCEA staff with information about resource mix preferences. As such, the portfolios themselves were not based on rigorous modeling of RCEA’s demand and needed supply, but rather a qualitative assessment of what resources will be available for RCEA to contract by 2035. That year was chosen as a benchmark for the analysis because several of RCEA’s current long-term contracts expire by 2035, making more room for new contracts. The following steps were taken to develop the various portfolios:

1. RCEA’s forecasted 2035 load⁵ was broken down into the portion to be met with currently contracted resources that will still be operating then, and the remainder of RCEA’s load that will be available for new resources not yet contracted.
2. The uncontracted portion of the portfolio was filled with five different scenarios, each with a distinct resource mix of either local Humboldt or non-local generic resource types, as presented in Figure 5.
3. Daily and annual generation profiles of each portfolio were constructed using a combination of counterparty proforma forecasts, risk-adjusted profiles used for RCEA’s financial modeling, and data from the California Public Utilities Commission’s Integrated Resource Plan Clean System Power Calculator, depending on the resource type.
4. Average daily generation profiles of each portfolio were compared against RCEA’s four-year average demand profile for both the summer and winter months, as presented in Figure 6.
5. Proxy resource costs were assigned to each resource type based on a combination of current contracts, recent solicitations, and market knowledge from RCEA’s consultant, The Energy Authority (TEA).
6. Expected annual net revenue of each portfolio was quantified based on the sum of proxy resource costs, expected market revenues generated by each resource, RCEA’s cost to serve load, and expected revenues from retail rates. Expected market revenues were quantified using TEA’s internal forward price curves for energy, resource adequacy, and renewable energy certificates or carbon-free attributes, as applicable.

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Appendix C: Workshop Transcriptions

The following is a full transcription of notes taken by the notetakers and activity results at both the in-person and online workshops. Only minor corrections to spelling and grammar were made to the text.

a. Small Discussion Groups

1) **RCEA reinvests revenues back into the community— how can RCEA make the biggest impact?**
   
   Examples: Programs to save energy or convert from gas to electric appliances and vehicles, building RCEA’s cash reserves for long-term financial stability, local energy infrastructure investment, other?
   
   - All of the above.
   - Rebates
   - Public education and information
     - Recommendations to people on how to save money – various appliances, education.
   - Neighborhood microgrids.
   - What RCEA can do in terms of encouraging microgrids, informing people that it could be feasible.
   - Solar on lakes – floating solar panels – potentially on the bay.
   - Various projection of electric rates
   - More public education to inform people on electrification – economic impact, financial impact.
   - Heat pump – how could that affect the resale value of house.
   - Information dissemination
   - Agriculture – potentially tapping into the dairy industry. Methane digester – Partnering with agriculture to develop renewables.
   - Constraints exist – timeline, low hanging fruit, various programs for rebates, heat pumps, EVs. Starting for Electric bikes. In the Future – developing local investment energy.
   - community batteries; utility or behind the meter? Looking at infrastructure in schools or other agencies.
   - Are we there to move gas to electric? Rural places lose power frequently. We have gas stoves, well for water, wood fire for heat. We suffer in the winter without gas. J: Having small Microgrids, and solar with batteries for back up power. But this is a important barrier.
   - Priority to keep electricity on now. Farmer and Ranchers need alternate fuels.
   - Accelerate roof top solar; feedback, doesn’t require maintenance and easy to implement. Humboldt has plenty of sun. Batteries also, powerwalls. I will report after installation and effectiveness. Cheapest and best way to help climate change. Heat pump is good, but depends on freon or CO2 or propane in the system, Freon has high emission factor. Use CO2 heat pumps. 10 panel array, by scaling 50 panels more efficient, future maybe 60, look at multi housing arrays.
   - McKinleyville CSD has a solar array. Could Manila CSD do this? Reach out to special districts or other entities to encourage solar. Would this be good for RCEA to do?
   - Encourage individuals to do solar – homeowners install or enlarge their existing systems to feed more into grid.
   - Rebates and tax credits to electrify appliances. Important to weatherize first. Coordinate with RCAA. RCEA does refer customers to RCAA.
   - Emphasis on public health scourge of woodstoves and their benzene and pm2.5 emissions. Heat pump incentives should be aimed specifically at woodstove replacement.
• NEM 3.0 – emphasize solar + storage since the financial outlook for solar only is not so good any more.
• More accessible flyers and community meetings to talk about RCEA’s programs – better outreach and info distribution
• Distributed solar on the built environment, in addition to other sources RCEA currently uses.
• More heat pump water heater incentives and rebates.
• More rate subsidies for low-income community members.
• Heat pump incentives (Heating/ hot water)
• RCEA community Solar
• Local infrastructure development
• Consumer rebates
  o Energy efficiency
  o Electrification, etc.
• Prioritize rebate accounts to encourage specific behaviors
• Giving people power to generate systems
  o “Small community”
  o “Backyard systems”
• Public ownership of infrastructure
  o More efficient appliances
  o Lower rates
• Energy conservation
• Storage
• More small microgrids
• Emissions reduction
• Energy conservation programs
• Rebates/ incentives (EV’s, Solar, etc.)
• Grants for RCEA to maximize revenue/loans/ incentives + credit worthiness
• Credit rating
• Local generation – preference in permitting
• Visible generation e.g.; solar parking/ carports, paired EV charger with solar
• Send message to public through good design.
• Education about RCEA
• RCEA ownership of local projects including offshore wind, more microgrids.
• More incentives for battery storage (increase $$)
• Borrow against future savings of offshore wind to develop local projects
• More EV charging stations
• Invest in wave energy (more local than offshore wind)
• Using local sources for generation, long term payoff
• Incentives for EV’s and infrastructure to support EV drivers.
• Sharing resources for EV chargers, more diverse chargers/ stations
• Encourage workplaces/ multi family units to have chargers too.
• E-bike programs
• Utilizing offshore wind
• More public engagement
• Outreach to developing solar and info sharing (E-bike ex.)
• Partner with radio stations, more info for new housing and rebate appliances
• “Electrification of built infrastructure will be challenging – spend $ on this”
• Putting extra high-A circuits into remodels
• “Can’t just target new buildings, have to include existing buildings”
• Heat pump rebates, expand to other load types/ appliances
• Panel upgrade rebates (existing) are good.
• More outreach (Only head about this workshop yesterday) for new and existing programs.
• Installer trainings/ certificates. Heat pumps are not plug and play, need skills.
• Workforce for electrification
• Rates – hold a workshop to inform everyone.
• Rates and electric loads are inter-related.

2) Our experience to date has shown that developing new renewable energy projects locally can be more expensive than simply purchasing renewable energy without concern for where it is generated. How important to you is developing local Humboldt generation resources compared to other goals such as greenhouse gas reduction, maximizing renewable energy, and customer rate savings?

• Local production is nice for resilience – however, reducing GHG is a priority. Replacing biomass in the portfolio would be important.
• Reducing GHG is a larger priority than local sources.
• More investigation into reducing GHG – and boosting local production.
• I like the whole idea of reducing GHG. With that goal, other issues fall in line. GHG reduction first, that would allow renewable energy and rate savings.
• Undecided. Questions prior to workshop would be good. Renewable needed, but keeping it local will benefit the economy. Expensive to truck in goods.
• Habitat destruction is a critical factor in making any decision: solar panels in the desert or scrubland create far more impacts that local rooftops. Same for marine impacts. Powerlines waste energy, start fires, and waste resources.
• Get rid of biomass, don’t care if it’s local, just want it to be clean.
• Agrees about biomass. Challenges for local are significant – higher cost, lack of developer interest, infrastructure limitations. Apart from the biomass issues, it doesn’t make much $ sense to develop locally. Maybe the local goal needs to be changed.
• CAC will be called upon to address this local energy question. Suggestion for CAC members to hold their comments till the CAC meeting. Multiple CAC members are in this breakout room.
• More emphasis on cleaner energy, time for change after procuring biomass for a long time.
• People are lobbying to remove biomass from CA’s definition of renewable energy.
• In 2021 500 scientists and economists wrote a letter against biomass being considered renewable due to 50+ years it takes to sequester the carbon emitted.
• Doesn’t necessarily have to be inside Humboldt County, but closer is better.
• Distributed solar on the built environment.
• Tidal/wave energy would be useful, and much less seasonal than solar.
• More local community solar projects, inland where they will be effective.
• STOP subsidizing non-carbon-free energy resources.
• Until transmission is improved, local is very important. Import and Export
• Use local innovative resources to develop more local
Local is the top 3 goal
- GHG reduction over local, however local is great if possible
- Local over all so we can close the loop
- System should prioritize affordability
- Need more info/ education—too complex
- Location doesn’t matter, just get it done quickly
- Very important – incentivize remaining local.
- Energy resiliency, more microgrids, ability to have battery storage during emergencies, large scale battery storage.
- It’s a free market, if local projects cant compete on price, forget local. Local does create jobs and keep families local. If we don’t build local, we are exporting and losing resilience, while maintaining dependence on HBGS gas plant, local power could help with reliability.
- Local RA is necessary, can’t just build solar
- Resilience and not relying on power.
- RCEA can’t totally exclude non-local projects. Peril of non compliance, put an adder in solicitations.
- We need to decide exact weighing criteria, a 2x preference for local is probably too high.
- Economies of scale will occur if local installers are able to increase their number of installs.
- RCEA- commission a study on economics of local power.
- Scalability is a concern
- Equity is important
- Local not important for generation, but storage is.
- Resilience is key to why local is important
- Local generation without GHG
- Ensuring max incentives for local generation
- “Backyard local”
- Rate savings for low income

3) **What are the challenges to providing equitable, affordable access to energy for all Humboldt residents while meeting local clean renewable energy goals? Example: lack of investment in energy infrastructure restricting new development.**
- Southern Humboldt County faces a problem of infrastructure for transmission.
- Need to invest in undergrounding lines, specifically for safety threats.
- Looking into the probability/likelihood of wind energy coming on the grid.
- There is a need for investing in infrastructure of wind energy.
- There is a need for improving current transmission lines – RCEA should encourage electrification, cables that are more efficient, potentially underground transmission lines.
- There was a proposal for utilizing agriculture for electricity
- Reduce the amount of power polls, including pivots.
- Improving infrastructure and reducing powerlines.
- Comment on Southern Humboldt. Discussion on microgrids.
- Reliability is key for agriculture
- Do more education with developers. Get them more in line with new development with the new energy policies in place. With right mentoring we can redirect that kind of attitude.
• Education lacking by government and schools. This happening rapidly. Tesla proposed in March, business plan 3, converting world to solar battery and wind. The Plan points out efficiencies. RCEA should look at this, study it, and debunk as much as possible. Look at energy savings, reduces emissions by half.
• Hard for me to see any, education needed. Good models for deployment. Initial investment feasibility. They save money.
• Electric rates high, whether from PG&E or RCEA. Rate structures are a disincentive to electrify. People can’t afford clean appliances. Clean techs need to be affordable.
• Power outage rates in our rural area discourage electrification. Trees fall on power lines.
• Time of use rates discourage using electric stove to cook dinner.
• Access to rate info and understanding the rates is really key. Some aren’t aware they could be on CARE or other rates they may qualify for.
• Distance – microgrids are a solution, but having to distribute power over long distances is a barrier.
• At Manila CSD, staff was good about informing people about programs to help w/ water & sewer bills during the pandemic. Had a sheet ready to hand out to people when they came in to pay their bills. Community orgs would be interested to provide this. RCEA could help make sure churches, community centers, etc. have info to give people.
• Same people show up at these meetings. How can we reach beyond the usual suspects and get more people from the community involved? (staff mentioned citizen assembly)
• Woodstoves are a major environmental justice problem
• We need to subsidize and incentivize for lower income citizens, to enable them to take advantage of technological improvements and efficiencies.
• RCEA should take advantage of existing programs to encourage distributed solar.
• Lack of money is a main barrier for many.
• Distribution, being on the same line, educating customers on financial apps and decrease energy usage.
• Time of use plan education, how to make it possible/ affordable
• Reliability during peak and off peak hours
• Reliability for rural customers, going electric, bringing entire county on board through public outreach (NIMBYism)
• Development cost outweigh benefit so cant get investors
• Lose volumetric price discount because jobs have to be small
• Humboldt market more expensive, find ways to have community projects
• Ensuring RCEA continues rebates so we can electrify and keep rates low so people don’t regret
• Lack of understanding of rates – there’s access to info but its hard to make decisions. RCEA could offer rate assessment services. PG&E has a tool, but its not easy to use. People have varying schedules so rate outcomes vary (Gamify education?)
• More expensive local could be a challenge, tiered rates based on income?
• Many people don’t know if they qualify for medical baseline.
• By 2030 will all be opted up, so getting people to opt up is a temporary problem
• Get more people on a medical baseline, free up their money for other things.
• PG&E infrastructure
• Renter vs. homeowner- agency to change home infrastructure – mobile home lack of agency
• Political resistance to green energy
• Lack of education on navigating programs and grant programs
• Planning and permitting processes
• Conservation
• Support transformative technologies and infrastructure such as OSW
• Infrastructure limitations
• Need a single point of contact to coordinate for those most in need
• Need for education
• Available assistance is being monopolized by people who don’t need it
• Access to capital
• Negative effects of wind to aquamarine life and local fisherman
• Public power accountability to rate payers
• Education about energy (renewable basics) and dirty energy
• Investment towards education

b. Resource Allocation Exercise

![Figure 3: Cumulative Resource Allocation Votes](image-url)
c. Preferred Energy Portfolio Exercise

![Figure 2: Online Workshop Cumulative Votes per Portfolio Option](image1)

![Figure 3: In-Person Workshop Cumulative Votes per Portfolio Option](image2)

d. Evaluations

**What did you like most about the workshop?**

- That it was an in-person option w/o hybrid virtual.
- Well prepared, thanks RCEA team!
- It moved right along.
- The opportunity to learn about RCEA and to participate in decision making by having my voice heard.
- The small group settings were well organized, thank you!
- Informative, knowledgeable presenters.
• Well conducted.
• Richard's intro was very good, and the sticker activities.
• Seemed like everyone was heard.
• Format.
• Discussion.
• Interaction.
• I learned a lot about the different choices we have and other people’s comments to help educate myself about the complexity of the questions we face.
• Community involvement.
• Scoring of options.
• Efficient, friendly.
• Lots of engagement.
• Good to get community input.
• Informative to a point, but it's complicated topic, so I felt many of us may not have had sufficient info.
• The interactive nature and the thoroughness of the questions - it was also very well planned and kept to time.
• Breakout group discussions
• Breakout rooms
• I very much appreciate that you had a Zoom option. Thank you for that!
• Initial presentation and graphs of options
• The topic!

How do you think the workshop could have been improved?

• Alt portfolios wall sheet: print the $$ costs on sheet that are on slide (which I didn’t see before I voted).
• I recognize that the public is reluctant to engage.
• Better noticing of rate payers/ residents, perhaps some tabling at grocer stores.
• A little more about the history of RCEA would be good to know.
• Clarify ratings again.
• More time for discussion, clarification on how the results will be used.
• Opening comments, welcome, and team intros could be quicker and more concise to leave more time for other activities. Report out to larger group took a long time.
• It felt like a small turnout. Not a large portion of the community was invited.
• More participants.
• It was fine.
• I am hoping staff does not conflate winning votes for “local energy development” with continuing local biomass.
• Better explanation of questions, more diverse group.
• More time in groups.
• Work on how to attract larger crowd.
• Less gimmicks.
• Be better to have better defined, narrower choices and to describe tradeoffs because RCEA isn't Santa Claus.
• More education about the specific energy sources though I know that would have lengthened things.
• Maybe a practice run with the tech could have saved 5 mins and also sending out the questions beforehand to get the best responses
• The polls limited the range of potential feedback/input that the public could give in ways that clearly didn't sit well with some people (i.e., people were asked to choose among options, but may not have liked any of them)
• Was difficult to answer survey questions, especially with survey rating format needing to be moved to see charts
• Fewer canned poll answers, and more opportunity to provide real input would have been much preferred.
• Needed more individuals in each group; we only had two who actively participated.
• The moderator took up a lot of precious time. she could have been more succinct.

**Indicate your level of agreement with the following statements:**

*I felt that my opinions were heard in the workshop:*

- Strongly Agree: (15)
- Somewhat Agree: (4)
- Neutral: (4)
- Somewhat Disagree: (0)
- Strongly Disagree: (0)

*The workshop is an effective means of gathering community input on RCEA’s energy procurement:*

- Strongly Agree: (9)
- Somewhat Agree: (11)
- Neutral: (2)
- Somewhat Disagree: (4)
- Strongly Disagree: (0)

**Please share any other comments you have about this event:**

• Its good but it is so hard to get broad, diverse attendance.
• I appreciate the different options for sharing thoughts/opinions (i.e. discuss, gold votes, # votes)
• Can(t) pick appropriate solutions without more background information.
• Needs to be more widely publicized.
• Enlightening and fun!
• I would like to see the prospect of publicly owned and operated utilities be a part of engaging public.
• Well done, very good summary of ratings, thanks for the food.
• More people need to know about these workshops.
• Thanks!
• It’s a very limited cross section of our community.
• Appreciate RCEA’s efforts to reach out into the community to gather input.
• Great job.
• I don’t know. Not sure they really made it onto this paper. All electrification/ rebates not alike. Is lowering rates really on this table? I think perhaps and education session first would have helped.
• OSW should be on alt. portfolio. Accountable % of logical items/ ideas incorporated report.
  Great job, thanks.
• Thanks for dinner.
• Too many old white people.
• Came late, from what I saw it was great.
• Multiple choice polls are frustrating because they guide choices into certain directions that may not reflect the participants' intentions.
• It was a genuinely pleasant and well-organized Zoom event, but like most of these things that RCEA does, it felt like it was carefully structured to get the answers that RCEA wanted. Ultimately, it felt like an exercise to give the appearance of getting community input, without actually seriously considering the community's input.
• Would have been useful to have a Q&A portion where we could actually ask questions. You didn't really indicate the current program priorities and what energy sources are being explored and the costs of each. A cost-benefit analysis would have been useful. You need to try to improve the use of the zoom technology, perhaps, and the polling process. You got a variety of ideas, which is great.
• Effective in that some people simply cannot attend in person. The ability to write comments in chat box is helpful and people took good advantage of that.

How did you hear about this event?
• Found out from a friend.
• RCEA e-newsletter.
• I heard through climate action committee of Humboldt, Unitarian fellowship, TV and newspaper, John Schaefer.
• NEC or EcoNews.
• I was looking up RCEA to learn about offshore wind.
• Heard from Wendy Ring.
• An email from RCEA.
• I heard about this via email blast.
• Heard about it in email.
• Email.
Appendix D: Glossary

Renewable

*Renewable energy* refers to electricity generated from naturally replenishing sources. According to California’s *Renewable Portfolio Standard*, Solar, Wind, Small Hydroelectric, Geothermal, and Biomass resources are among those counted as qualifying renewable energy.

Carbon-Free

Resources labeled as *carbon-free* refer to electric generation facilities that produce zero greenhouse gas emissions. These can include resources such as large hydroelectric and nuclear power, neither of which is classified as renewable by the State of California. Carbon-free energy resources can play a large part in reducing greenhouse gas emissions, but may also have other environmental or economic impacts that need to be considered. Note: RCEA does not procure any electricity from contracts with nuclear facilities, and does not include nuclear power in current or planned portfolios.

Local Energy Resources

RCEA defines *local energy resources* as those located within the Humboldt Local Reliability Area, which is roughly geographically contiguous with Humboldt County itself.

Clean Energy

The “Defining ‘Clean’ Energy” sidebar on page 3 of “RePower Humboldt: The Redwood Coast Energy Authority’s Comprehensive Action Plan for Energy” (https://redwoodenergy.org/wp-content/uploads/2020/06/RePower-2019-Update-FINAL-.pdf) explores the problematic nature of this widely used term, stating: “After receiving public comments and discussing the matter at length, the CAC [Community Advisory Committee] members generally agreed that the term is too subjective to be used as a litmus test for making specific energy procurement decisions. In lieu of an explicit definition of ‘clean,’ the CAC endorses the goals stated in the Power Resources section of this plan that call for minimizing greenhouse gas emissions and maximizing renewable energy content of RCEA’s CCE program, while also taking into consideration other environmental or public health impacts.”

Net Qualifying Capacity

*Net Qualifying Capacity* (NQC) refers to the state-recognized amount of generating capacity that can be claimed for an energy resource, determined using a percentage (the Effective Load Carrying Capacity or ELCC) of the nameplate capacity of the facility. Different resources are assigned different values throughout the year. A hypothetical 50 MW nameplate generic solar facility in California this year would have an ELCC ranging from 0.4% to 14%, which would mean a Net Qualifying Capacity between 0.2MW and 7MW.

Resource Adequacy

*Resource Adequacy* (RA) refers to minimum capacity requirements that the State of California mandated to ensure balanced supply and demand across the grid, particularly during extreme weather that places the heaviest demand on supply. Load Serving Entities like RCEA must report monthly and annually to the CPUC on their contracted supply of RA, and may be penalized when they cannot show they have contracted enough power to meet their share of the minimum reserve capacity in a given period.
Humboldt’s Electric Future: Draft Final Report

Presentation to RCEA Board of Directors
July 27, 2023
Topics

• Humboldt’s Electric Future process
• Public workshop activities and outcomes
• Final report
• Next steps
Humboldt’s Electric Future Process

• Planning
• Initial public engagement
• Initial report
• Portfolio development and analysis
• Public workshops
• Final report
Public Workshops

• In-person and webinar
• Presentation and activities: discussion groups, resource allocation, power portfolio ranking
Discussion Questions

1. How can RCEA spend its available funds to make the biggest impact?

2. How important is developing local Humboldt generation resources compared to other goals?

3. What are challenges to providing equitable, affordable energy while achieving local renewable energy goals?
Discussion Groups Summary

- More local development and programs to incentivize job creation, community resilience, etc.
- Reducing greenhouse gas emissions quickly is most important.
- Concerns of scalability, affordability, and carbon neutrality.
- Desire for more education and outreach.
Resource Allocation Activity

Participants allocated ten tokens among the following priorities:

• Local renewable energy projects
• Lower electricity rates for all
• Lower electricity rates for low-income customers
• Customer energy programs
• Building financial reserves
Resource Allocation Outcomes

Percentage of Responses per Category

- Financial reserves
- Customer energy programs
- Lower rates for low income
- Lower rates for all
- Local renewable development

<table>
<thead>
<tr>
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<th>In Person</th>
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<td>Local renewable development</td>
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<tr>
<td>Financial reserves</td>
<td>8.4</td>
<td>17.3</td>
</tr>
</tbody>
</table>
Preferred Energy Portfolio Activity

RCEA seeks public input on this uncommitted portion of our portfolio.

Mostly solar

Contracted resources, 40%

Uncontracted, 60%
Preferred Energy Portfolio Activity

A: Maximize Local
- Local Solar, 9%
- Bioenergy, 15%
- Offshore Wind, 30%
- Small Hydro, 6%
- $5M

B: Maximize Offshore Wind
- Offshore Wind, 60%
- $7M

C: Maximize Resource Diversity
- Geothermal, 15%
- Generic Onshore Wind, 15%
- Generic Solar, 15%
- Bioenergy, 9%
- Small Hydro, 6%
- $14M

D: Quickest to Renewable
- Bioenergy, 15%
- Generic Onshore Wind, 21%
- Generic Solar, 24%
- $15M

E: Reduce Greenhouse Gases
- Large Hydro, 15%
- Generic Onshore Wind, 21%
- Generic Solar, 24%
- $18M

$ = net yearly revenue to RCEA
Preferred Energy Portfolio Outcomes

Cumulative Votes per Portfolio (In Person)

- Maximize Local: 60 votes
- Maximize Offshore Wind: 40 votes
- Maximize Resource Diversity Portfolio Option: 80 votes
- Quickest to 100% Renewable: 80 votes
- Reduce GHG: 120 votes

Cumulative Votes per Portfolio (Webinar)

- Maximum Local: 60 votes
- Maximum Offshore Wind: 40 votes
- Maximum Resource Diversity Portfolio Option: 80 votes
- Quickest to 100% Renewable: 80 votes
- Reduce GHG: 120 votes
Final Report

Summer and winter generation profiles of each portfolio option (2035)

Our existing heavy contractual commitment to solar, paired with few other resources yet under long-term contract, has us oversupplied in mid-day and short at other times of day.
Community Advisory Committee Comments

- Commit to round-the-clock renewable portfolio
- Give more consideration to replacing biomass with other renewable resources
- Include analysis and discussion of emissions for each portfolio
- Discuss how electrification is incorporated in RCEA’s load forecast
- Style/format: improve readability; add definitions of terms
Next Steps

- **July 11, 2023**: Present draft Humboldt’s Electric Future final report to RCEA Community Advisory Committee
- **July 27, 2023**: Present final draft of Humboldt’s Electric Future report to RCEA Board
- **August, 2023**: Publish Humboldt’s Electric Future final report on website
- **Fall 2024**: Begin 2024 Integrated Resource Plan
BACKGROUND

The Demand Side Management Department has been working with the Rural Hard to Reach Working Group (RHTR) to develop a Regional Energy Network (REN) that will serve rural communities in California. The RHTR group was tasked in 2017 to explore an operable model of “rural” to meet objectives to increase customer participation in energy efficiency programs throughout the state and inform outreach to ensure inclusiveness at the rural level. The focus turned to developing a REN for the several agencies and organizations that participate in the RHTR group. This rural REN will give RCEA an opportunity to offer energy efficiency programs, workshops, and trainings that would otherwise not be offered in rural areas such as ours, with less restrictive cost-effectiveness requirements than our current state funding for energy efficiency programs. Furthermore, RCEA will be the Program Administrator for the entire REN, managing all regulatory compliance, reporting, and budgets.

The RuralREN will serve 31 counties including 18% of California’s population and 66 Tribal governments. RCEA will manage implementation in Humboldt County, as well as in Lake and Mendocino Counties in partnership with the Mendocino Council of Governments and the Lake Area Planning Council. There will be seven programs, but not all programs will be implemented in each territory. The seven program areas are:

- **Residential Resource Acquisition**: incentives and rebates for energy efficiency and electrification
- **Commercial Resource Acquisition**: incentives and rebates for energy efficiency and electrification
- **Residential Equity**: assessments and other “non-resource” services to public customers
- **Public Equity**: assessments and other “non-resource” services to public customers
- **Codes and Standards**: education and technical resources to increase comprehension of and compliance with California’s Building Energy Efficiency Codes
- **Workforce Education and Training**: programs to accelerate training (existing worker upskilling and new worker training) and increase new opportunities for employment
- **Finance**: gap and micro-loans for residential, commercial, and public customers.

RCEA on behalf of the RuralREN submitted a Business Plan and Motion to the CPUC in March 2022 with a five-year budget to begin in 2023. The CPUC decided to align the RuralREN with other Program Administrators (PAs) including the Investor-Owned Utilities (IOUs), Community Choice
Aggregators (CCAs) and three existing and one pending RENs, and considered the RuralREN motion in 2023 for implementation in 2024.

After considerable staff and partner effort to socialize the RuralREN, reply to stakeholder comments, meet with CPUC staff and commissioners, and meet regulatory requirements, the CPUC released a Proposed Decision in May 2023 to fully approve the RuralREN’s 2024-2027 budget of $84,209,480 and 2028-2031 forecast budget of $93,153,166. The CPUC voted to finalize the decision on June 29, 2023.

SUMMARY

In order to launch the RuralREN, RCEA must complete some near-term regulatory and administrative requirements, beginning in early October with the submission of a True Up Advice Letter, consisting of the metrics and budgets for all seven programs across the 31-county region; implementation plans for all seven programs; and three separate joint cooperation memos with the other entities administering CPUC-funded energy efficiency programs in regions overlapping the RuralREN.

RCEA has a consulting contract with Frontier Energy that the Board approved in 2020 to assist with administrative and regulatory tasks associated with implementing CPUC ratepayer-funded energy efficiency programs. This contract has had four amendments to date. Frontier’s work with RCEA has consistently been excellent, and they have remained within and frequently below budget. Frontier also has extensive experience with existing RENs has assisted with launching a new REN. Frontier’s scope of work with RCEA includes program support and regulatory reporting services to support RCEA’s CPUC ratepayer-funded energy efficiency programs, which aligns with the near-term services required for the RuralREN. An estimated $150,000 will be needed to complete this near-term regulatory and administrative work. RCEA’s RuralREN administrative budget for 2024 is $1,910,347. Much of these launch costs would fall into the larger implementation budgets as well. The CPUC has not issued specific guidance on how soon RCEA can begin incurring expenses against the approved RuralREN budget and drawing down funds. RCEA staff are in discussion with the CPUC to clarify this point, but it is possible that some or all of these launch expenses may not be reimbursable. Precedence with the launch of other RENs indicates these expenses should be reimbursable.

The amendment will also stipulate that these RuralREN launch support services do not present a conflict of interest or advantage for responding to future solicitations for ongoing RuralREN Administrative services, which will be procured through a Request for Proposal that will be presented at the August 2023 Board meeting for approval. The amendment has been reviewed by RCEA legal counsel.

ALIGNMENT WITH RCEA’S STRATEGIC PLAN

RuralREN formation and implementation furthers RCEA’s strategic plan goal of “(making) energy efficiency and conservation services available to every household and business in the county by 2030,” and expands work toward this goal to other rural and hard-to-reach communities across the state.

The RuralREN will also contribute to Integrated Demand Side Management, Energy Efficiency & Conservation, Demand Response and Customer Distributed Generation & Storage strategies listed in RCEA’s RePower Strategic Plan.

EQUITY IMPACTS

RENs in general, and the RuralREN in particular, are designed to reach customers that otherwise are not being reached by existing ratepayer-funded programs. Over 90% of the RuralREN counties are
defined as low income in the Health and Safety Code, and over half are defined as disadvantaged. The RuralREN governance structure will include an Equity Technical Advisory Committee.

**FINANCIAL IMPACT**

The RuralREN calendar year 2024 budget is $19,961,400.

RCEA will be managing:
- Implementation for Humboldt, Lake, and Mendocino: $2,078,487
- REN Administration: $1,910,347
- REN Marketing: $1,021,758.

This amendment would increase the contract amount by $150,000. This amendment presents a potential for a non-reimbursable expense up to $150,000.

**STAFF RECOMMENDATION**

Approve contract amendment No. 5 with Frontier Energy, Inc. for near-term Regional Energy Network launch regulatory and administrative services, with a not-to-exceed amount of $150,000 and authorize the Executive Director to execute all applicable documents.

**ATTACHMENTS**

The Frontier Energy contract amendment was not available at the time of agenda publication. It will be added to the agenda packet by Wednesday, July 26, 2023, and will be viewable online at [https://redwoodenergy.org/](https://redwoodenergy.org/) and at RCEA offices, 633 Third Street, Eureka, CA, 95501.

NOTE: Draft contract amendment was added to this Board meeting agenda packet on 7/24/2023.
AMENDMENT No. 5 TO
AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN THE REDWOOD COAST ENERGY AUTHORITY AND FRONTIER ENERGY, INC.

This is an amendment (“Amendment”) to that certain Agreement by and between the Redwood Coast Energy Authority (“RCEA”), a Joint Powers Authority, and Frontier Energy, Inc., (“CONSULTANT”), a California corporation, entitled “Agreement For Professional Services Between The Redwood Coast Energy Authority And Frontier Energy, Inc.,” dated July 23, 2020, amended July 2021, September 30, 2021, July 1, 2022 and May 17, 2023 (collectively, “Agreement”). This Amendment is effective as of ________________, 2023.

RECITALS

WHEREAS, pursuant to the Agreement, Consultant has provided energy efficiency program reporting services for RCEA beginning in 2020; and

WHEREAS, effective July 3, 2023, RCEA received CPUC approval (Decision D.22-02-005) to operate as the Program Administrator a new regional energy network (REN) called RuralREN, to deliver energy efficiency benefits to underserved customers and communities in the rural areas all over California in four different regions;

WHEREAS, RCEA intends to solicit competitive proposals for on-going RuralREN administrative and program support consultant services; however, RCEA is in need of immediate short-term assistance in RuralREN set up such as preparation of CPUC advice letters, Joint Cooperation Memoranda, and CPUC CEDARS set up in order to meet the RuralREN approved 2023 implementation milestones;

WHEREAS, CONSULTANT has the demonstrated competency, qualifications and capacity to provide RCEA the immediate short-term services needed to implement RuralREN at fair and reasonable prices;

WHEREAS, due to RCEA’s immediate need for short-term RuralREN support services, the parties seek to amend the Agreement to revise the scope of services to be provided by CONSULTANT and compensation due.

NOW THEREFORE, in consideration of the mutual covenants, conditions and terms recited herein and made a material part hereof, the parties agree as follows:

1. Conflicts of Interest.
   The following Section 26, “Conflicts of Interest,” is hereby added to the Agreement:


   a. CONSULTANT hereby warrants and represents the following:
      i. CONSULTANT does not and will not participate in the making of RCEA or RuralREN decisions;
      ii. For purposes of this Agreement, CONSULTANT is not covered by and is not subject to the California Political Reform Act (“PRA,” Government Code §§81000 - 91014); provided however, if this status changes, CONSULTANT shall immediately notify RCEA, disclose the conflict of interest, and disqualify itself from the making or participating in the making of the decision for which the conflict has arisen;
iii. CONSULTANT does not have any separately defined financial or other interests that could be characterized as conflicts of interest under the PRA;
iv. In providing services to RCEA, CONSULTANT has not engaged in any unlawful activity including, but not limited to, rebates, kickbacks, or other unlawful consideration to any RCEA employees, Board members, agents, or contractors; and
v. CONSULTANT does not have a separate financial relationship with any RCEA employees that would qualify as a conflict of interest under the PRA.
b. CONSULTANT agrees to comply with RCEA’s conflict of interest policy.

2. Amendment to Exhibit A.
Exhibit A-1, “RuralREN Start-up Scope of Work,” attached hereto and incorporated herein, is added to the Exhibit A of the Agreement. No other changes are made to Exhibit A.

3. Amendment to Exhibit B.
Exhibit B-1, “RuralREN Start-up Compensation,” attached hereto and incorporated herein, is added to the Exhibit B of the Agreement. No other changes are made to Exhibit B.

4. Ratification of Agreement.
The terms and conditions of the Agreement, including all exhibits and attachments, are ratified in their entirety except to the extent inconsistent with the terms and provisions of this Amendment. In the event of such inconsistency, this Amendment shall control.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 5 effective as of the date of the date hereinabove written.

RCEA: CONSULTANT:

By: _________________________________ By: _________________________________
Matthew Marshall Name: _________________________________
Executive Director Title: _________________________________
Date: _________________________________ Date: _________________________________
EXHIBIT A-1: RURALREN START-UP SCOPE OF WORK

CONSULTANT agrees to perform the following services for RCEA:

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Name</th>
<th>Approx. Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.a</td>
<td>Program Support – JCM Coordination</td>
<td>659</td>
<td>Provide coordination and development support for the three separate joint cooperation memoranda (JCMs) between RuralREN and overlapping Pas that are required by the CPUC Decision.</td>
</tr>
<tr>
<td>1.b</td>
<td>Program Support - Implementation Plans</td>
<td>190</td>
<td>Provide draft reviews and consulting support as the RuralREN staff develop program Implementation Plans. Implementation Plans (IPs) will need to be developed and uploaded to CEDARS as part of the TUAL filing.</td>
</tr>
<tr>
<td>3.a</td>
<td>Regulatory Reporting – TUAL preparation</td>
<td>48</td>
<td>Provide support with budget filing platform and metrics review. These tasks are components of the True-Up Advice Letter (TUAL). The 2024-2027 TUAL allows Program Administrators (PAs) to incorporate updates to avoided costs and potential and goals that occurred since the original Strategic Business Plan and Portfolio Plan filing. These updates will have implication for portfolio cost-effectiveness including the new Total System Benefit (TSB) metric. Additional areas for reconciliation include measure mix, forecasted penetration rates, and shifts in program delivery strategy since the original filing.</td>
</tr>
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</table>

CONSULTANT will perform the services indicated above no later than December 31, 2023, though this may be adjusted in writing by RCEA in negotiation with CONSULTANT.
EXHIBIT B-1: RURALREN START-UP COMPENSATION

CONSULTANT will perform the above services on a time and materials basis for a not-to-exceed amount of $150,000. Time will be billed at the fixed hourly rates displayed in the fee schedule according to the budget table below.

Fee Schedule

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<tr>
<th>Position/Title</th>
<th>Maximum Billable Hourly Rate</th>
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<tr>
<td>President</td>
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<tr>
<td>Vice President / Sr. Director</td>
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<tr>
<td>Director</td>
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<tr>
<td>Sr. Manager / Engineering Manager</td>
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<tr>
<td>Manager</td>
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<td>Sr. Engineer / Sr. Program Manager</td>
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<td>Engineer / Program Manager</td>
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<tr>
<td>Sr. Program Consultant / Dr. Analyst</td>
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Budget Table

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STAFF REPORT
Agenda Item # 9.1

AGENDA DATE:        July 27, 2023
TO:                  Board of Directors
FROM:                Matthew Marshall, Executive Director
SUBJECT:             Executive Director’s Report

SUMMARY

Executive Director Matthew Marshall will provide updates on topics as needed.

RECOMMENDED ACTION

None. (Information only.)
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