Redwood Coast Energy Authority
633 3rd Street, Eureka, CA 95501
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BOARD OF DIRECTORS REGULAR MEETING AGENDA

Jefferson Community Center Auditorium **September 28, 2023**
1000 B Street, Eureka, CA 95501 **Thursday, 3:30 p.m.**

Director Myers or Alternate Director Provolt 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 7236 8051.

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 August 24, 2023, Board Meeting.
4.2 Approve Disbursements Report.
4.3 Accept Financial Reports.
4.4 Approve Resolution 2023-8, Approving and Attesting to the Veracity of the 2022 Power Source Disclosure Report and Power Content Label.
4.5 Approve the Attached Update to the Executive Director Salary Range Based on a Midpoint of $267,000 Effective July 1, 2023.

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. OLD CCE BUSINESS

6.1. Presentation on Public Health Impacts of Biomass Energy Plants on Nearby Populations, by Dr. Candy Stockton, Health Officer, Humboldt County Department of Health and Human Services. (Information only)

6.2. Biannual RCEA Strategic Plan Update (Information only)

7. NEW CCE BUSINESS – None.

END OF COMMUNITY CHOICE ENERGY (CCE) BUSINESS

8. OLD BUSINESS

8.1 Foster Clean Power A Renewable America Solar Project Contract Amendment

Approve Amendment 1 to the Foster Clean Power A LLC Power Purchase Agreement and authorize the Executive Director to execute all applicable documents.

8.2 Electric Vehicle Charging Hub Project Design Contract

Authorize the Executive Director to execute all applicable documents for Professional Electrical Design and Engineering Services associated with the North Coast Plug-In Electric Vehicle Charging Network Phase 2 Project with Whitchurch Engineering, Inc. for a not to exceed value of $99,088, subject to RCEA General Counsel review.

9. NEW BUSINESS

9.1 RCEA Office Building Property Purchase and Development

Approve Resolution No 2023-07, Accepting Real Property Interests in Assessor's Parcel Number 001-131-007, 805 3rd Street, Eureka CA.

Approve the expenditure of $285,000 plus closing fees and costs estimated to be less than $5,000 for the acquisition of real property at 805 3rd Street, Eureka, CA, APN 001-131-007.

10. STAFF REPORTS

10.1 Executive Director's Report

11. FUTURE AGENDA ITEMS

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

12. ADJOURNMENT

NEXT REGULAR MEETING
Thursday, October 26, 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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REDWOOD COAST EnergyAuthority

STAFF REPORT
Agenda Item # 1.1

AGENDA DATE:	September 28, 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.

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BOARD OF DIRECTORS DRAFT MEETING MINUTES

Jefferson Community Center Auditorium **August 24, 2023**
1000 B Street, Eureka, CA 95501 **Thursday, 3:30 p.m.**

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 3:34 p.m. Notice of this meeting was posted on August 18, 2023.

PRESENT: Natalie Arroyo, Scott Bauer, Skip Jorgensen, Kris Mobley, Alt. Director Sherri Provolt, Jason Ramos, Vice Chair Sarah Schaefer, Frank Wilson, Chair Sheri Woo. ABSENT: Frankie Myers, Elise Scafani, Jack Tuttle.

STAFF AND OTHERS PRESENT: Business Planning and Finance Director Lori Biondini; General Counsel Nancy Diamond; Power Resources Director Richard Engel; Executive Director Matthew Marshall; Account Services Manager Sally Regli; Board Clerk Lori Taketa; Deputy Executive Director Eileen Verbeck.

REPORTS FROM MEMBER ENTITIES
There were no reports from member entities.

ORAL COMMUNICATIONS
An anonymous member of the public inquired about a discrimination complaint filed against RCEA through the U.S. Equal Employment Opportunity Commission. General Counsel stated that there was no comment on this matter.

Members of the public Dr. Ken Miller and Jesse Noell submitted written comment in support of distributed rooftop solar energy. Chair Woo closed the non-agenda item public comment period.

CONSENT CALENDAR

4.1 Approve Minutes of July 27, 2023, Board Meeting.

4.2 Approve Disbursements Report.

4.3 Accept Financial Reports.

4.4 Approve:

- The Analyst Job Description as Provided.
- Adding the Analyst Job Description to the Salary Schedule at the Technician Position Classification.
- Reclassifying the Rural REN Technician Position to Analyst.
- The Revised Organizational Chart.

4.5 Authorize Staff to Prepare and Release Solicitations for RuralREN Administrative, Marketing, Legal, and Database Support Services Following Review and Approval by RCEA Administrative Staff and Legal Counsel.

4.6 Approve Memorandum of Understanding Between Redwood Coast Energy Authority and the County of Humboldt to Investigate Microgrid Development at County Airport Facilities and Authorize the Executive Director to Execute Said Memorandum of Understanding.

No director nor member of the public requested items be removed from the consent calendar.

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

The motion passed with a unanimous vote. Ayes: Arroyo, Bauer, Jorgensen, Mobley, Provolt, Ramos, Schaefer, Wilson, Woo. Noes: None. Absent: Scafani, Tuttle. Abstain: None.

NEW BUSINESS

6.1 Fiscal Year 2022-2023 Fourth Quarter Budget Report

Business Planning and Finance Director Biondini reported that the agency's net revenue last year was nearly $16 million. Director Biondini reminded the directors of the energy market's extreme volatility, which has a very large impact on the agency's financial condition. Actual revenue was $20 million less than what was forecast one year prior, and actual expenses were roughly $28 million less. There was no Board discussion nor public comment.

M/S: Mobley, Schaefer: Accept Quarterly Budget Report (Q4).

The motion passed with a unanimous vote. Ayes: Arroyo, Bauer, Jorgensen, Mobley, Provolt, Ramos, Schaefer, Wilson, Woo. Noes: None. Absent: Scafani, Tuttle. Abstain: None.

CCE BUSINESS - Chair Woo confirmed there was a CCE Business quorum present.

OLD CCE BUSINESS

7.1 Net Billing Tariff Implementation Update

Power Resources Director Engel reported on the differences between the current Net Billing Tariff and preceding iterations of the state's Net Energy Metering billing system that have changed with solar system adoption. The impending Net Billing Tariff rules and rates consider when residential solar systems send energy to the grid. Under the new tariff it will take twice as long for solar system owners to recoup costs. New solar system installations surged prior to the end of the previous Net Energy Metering rules in April and have slowed since the Net Billing Tariff began. Residential solar system economics can be improved by sending less electricity to the grid during the day, installing less power generating capacity than needed, and installing battery storage.

The Directors discussed:

- the disincentive to install more home solar energy systems under the new tariff system

- the possibility of offering a storage incentive or rebate to lessen the new tariff's financial disincentive for new solar system installation.

Arcata resident Diane Ryerson expressed support for establishing a publicly-owned utility in Humboldt County. She opposed PG&E's tariff structure because it promotes natural gas use, which profits the utility's investors while customer-generated solar energy does not.

Colin Fiske, commenting as a member of the public and not as a representative of the Community Advisory Committee, asked that RCEA retain the existing net energy metering program and address equity issues by funding multifamily and income-qualified customer solar installation.

Chair Woo closed the public comment period. After discussion and amendment, the following motion was approved:

M/S: Schaefer, Bauer: Approve a Net Billing Tariff design that mirrors the PG&E Net Billing Tariff to be implemented on or after December 15, 2023, as determined by Calpine's billing readiness. Prior to implementation staff will present to the Board rate proposals for adoption with storage incentive options for consideration. The Board will reevaluate the Net Billing Tariff structure no later than 12 months after implementation.

The motion passed with a unanimous vote. Ayes: Arroyo, Bauer, Jorgensen, Mobley, Schaefer, Wilson. Noes: None. Absent: Scafani, Tuttle. Abstain: None. Non-Voting: Provolt, Ramos, Woo.

NEW CCE BUSINESS

8.1 Procurement of Portfolio Content Category 3 Renewable Energy Certificates

Power Resources Director Engel reported how RCEA had not previously considered Category 3 RECs which are uncoupled and purchased separately from energy produced. Until recently, both in-state (Category 1) and out-of-state (Category 2) RECs were available at prices RCEA could viably afford. The Sandrini solar project, which was scheduled to begin operation in 2022, would have provided required RECs during the latter portion of the 2021-2024 compliance period. Due to this project's ongoing delays, RECs must be purchased from other sources to reach end of 2024 targets. At least 65% of this purchase must be under 10 or more-year contracts. Pandemic supply chain delays contributed to highly inflated energy product prices. Category 1 RECs cost 6-9 times more than Category 3 RECs and are no longer available in a landscape where California and neighboring state load-serving entities are struggling to meet mandated energy transition planning deadlines. Category 2 RECs are no longer attractive because of emissions counting rule changes ascribing default emissions values to these resources. Staff will present any long-term Category 3 REC purchase contracts for Board approval following Purchasing and Energy Risk Management Policies.

The directors discussed:

- Fines and potential CPUC restrictions if RCEA does not meet the REC requirements
- Purchasing RECs with a long-term contract and selling once Sandrini begins operation
- How extremely high REC costs and unavailability are driving the need to seek RECs from less desirable sources

- Directing the price difference from purchasing less expensive PCC 3 RECs toward customer programs.

Member of the public Dan Chandler asked the Board to procure carbon free RECs that are additive, and to consider that this may be solar and wind energy's low-price period.

Member of the public Walt Paniak asked whether historic, unbundled RECs can be procured. California rules require RECs to be produced during the compliance periods.

Chair Woo closed the public comment period for this item.

M/S: Schaefer, Arroyo: Authorize staff to seek procurement of Portfolio Content Category 3 Renewable Energy Certificates from carbon-free sources as needed for RPS compliance purposes, and to procure any contracts in accordance with the transaction authorization limits in the Energy Risk Management Policy.

The motion passed with a unanimous vote. Ayes: Arroyo, Bauer, Jorgensen, Mobley, Schaefer, Wilson. Noes: None. Absent: Scafani, Tuttle. Abstain: None. Non-Voting: Provolt, Ramos, Woo.

8.2 Portfolio Content Category 3 Renewable Energy Certificate Purchase from Humboldt Sawmill Company

Chair Woo recused herself due to a remote conflict of interest. Humboldt Sawmill Company has retained the services of her employer, SHN Engineers & Geologists Power Resources. Director Wilson, a former employee of Humboldt Redwood Company, also recused himself due to a conflict of interest. Chair Woo and Director Wilson left the meeting room at 5:24 p.m.

Director Engel described reasons for considering purchase of category three renewable energy credits from Humboldt Sawmill Company:

- the need to procure a state-mandated quantity of RECs by an impending deadline
- the previously adopted Board mandate to procure local renewable energy
- the extremely high price and scarcity of RECs in the current energy market.

Jim Pelkey, Humboldt Sawmill Company Financial officer, described HSC's commitment to compliance with air quality laws and explained the Air District's notice of violation process which triggers communication and production of information on emissions levels and causes. For many notices of violation, HSC was found to have been within allowable emission limits. Mr. Pelkey described a difficult transition period in 2016 after the cogeneration plant changed ownership. There have been fewer violations since 2017 when HSC and RCEA signed a power purchase agreement. There have been 11 notices of violations to date in 2023, including notices for emissions after two earthquakes. HSC was found to be in compliance for the first notice and is awaiting word from the Air District on subsequent notice investigations.

The following members of the public opposed the recommendation to purchase renewable energy credits from Humboldt Sawmill Company:
Andrea Armen, Arcata
Emelia Berol, McKinleyville
Sarah Brooks, Redway

Edith Butler
Dan Chandler
Lee Dedini, Bayside
Julie Doerner
Ann Dorsey
Deborah Dukes, Eureka
Ann Feeney
Colin Fiske, member of the public, not commenting as an RCEA CAC member
Ellen Golla
Caroline Griffith, representing the Northcoast Environmental Center
Patty Harvey, Willow Creek
Joel Hildebrandt, Alameda County
Sue Hilton, Arcata
Mary Hurley, Eureka
Gordon Inkeles, Bayside
Caroline Isaacs
Lynn Kerman, Eureka
Pat Kenzler, Eureka
David Klass
Naomi Klass
Cathy Chandler-Klein
Diane Korsower
Jerry Martien, Eureka
Lynda McDevitt, Trinidad
Caephren McKenna
David Moller, Larkspur
Carol Mone, Trinidad
Paula Morgan
Sue Y. Lee Mossman, Arcata
Andrea Orman, Arcata
Walt Paniak, Arcata
Susan Parsons, Bayside
Judith Rieger
Wendy Ring
Diane Ryerson, Arcata
Ron Sadler
John Schaefer
Jasmin Segura
Rebecca Stauffer
Ellen Taylor, Petrolia
Martha Walden
Joanna Welch, Eureka
Leslie Zondervan-Droz

Biomass Technical Advisory Group members Caroline Griffith, Tom Wheeler and Daniel Chandler, of Northcoast Environmental Center, Environmental Protection Information Center and the 350 Humboldt Steering Committee, respectively, submitted written comment opposing the HSC REC purchase pending further consideration of the biomass plant’s air pollution by the BTAG and RCEA’s Community Advisory Committee.

Arcata resident Michael Winkler submitted written comment supporting the HSC REC purchase.

Vice Chair Schaefer closed the public comment period.

The directors expressed:

- lack of support for purchasing Humboldt Sawmill Company renewable energy credits
- a desire for the Biomass Technical Advisory Group to gain deeper understanding of HSC's emissions violations
- a desire to understand the impacts to RCEA of not purchasing RECs from HSC.

The directors discussed:

- HSC's ability to sell RECs which are valuable in the current energy market
- that voting to purchase HSC's renewable energy credits would violate policy the Board set in the previous agenda item.

There was no action on this item due to lack of a motion. Chair Woo and Director Wilson returned to the meeting room at 6:08 p.m.

OLD BUSINESS

9.1 Q2 CAPE Status Update (Information only)

Due to meeting length, this item was postponed to the following meeting.

STAFF REPORTS

10.1 Executive Director's Report

Executive Director Marshall reported that staff are applying for grants focusing on solar, storage and resilience at critical facilities, as well as grants and loans for more complex projects such as a Rohnerville Airport microgrid. RCEA's Summer Reliability Outlook is available at *www.RedwoodEnergy.org*. There were no public comments on this agenda item.

FUTURE AGENDA ITEMS

Directors requested information on RCEA developing agency-owned projects to satisfy state-mandated procurement requirements and on electric and hydrogen vehicle fueling station planning.

CLOSED SESSION

12.1 Public Employee Performance Evaluation, pursuant to Government Code Section 54957(b)(1): Executive Director.

No member of the public commented on closed session item 12.1. The directors adjourned to closed session at 6:15 p.m. and reconvened in open session at 6:58 p.m. Chair Woo stated there was nothing to report from closed session and adjourned the meeting at 6:58 p.m.

Lori Taketa
Clerk of the Board

Accrual Basis

Redwood Coast Energy Authority
Disbursements Report
As of July 31, 2023

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	07/03/2023	ACH	Deluxe Check Printing	RCEA Check Stock	-452.57
Liability Check	07/07/2023	ACH	EDD	Tax deposit Paydate 7/7/23	-6,125.79
Liability Check	07/07/2023	ACH	Internal Revenue Service	Tax deposit Paydate 7/7/23	-29,781.80
Liability Check	07/07/2023	ACH	Newport Group	Deferred compensation Paydate 7/7/23	-18,853.63
Bill Pmt -Check	07/07/2023	ACH	Viridity Energy Solutions, Inc.	Tierra Buena RA-June 2023	-16,900.00
Bill Pmt -Check	07/07/2023	ACH	CalCCA	Operational Member dues Q1 FY 23/24	-24,426.00
Liability Check	07/07/2023	16112	Umpqua Bank	Health Savings Account Paydate 7/7/23	-72.07
Bill Pmt -Check	07/07/2023	16113	AT&T	RCAM Router charges - ACV: 05/19 - 06/18	-163.00
Bill Pmt -Check	07/07/2023	16114	Bithell, M.	June 2023 Mileage Reimbursement	-136.24
Bill Pmt -Check	07/07/2023	16115	Boudreau, D.	June 2023 Mileage Reimbursement	-104.80
Bill Pmt -Check	07/07/2023	16116	Brant Electric	917 3rd St Office Electrical repairs	-3,764.00
Bill Pmt -Check	07/07/2023	16117	Donald Dame	CCA consulting services June 2023	-175.00
Bill Pmt -Check	07/07/2023	16118	Enterprise	Car rentals for CCEC conference in Santa Rosa	-951.11
Bill Pmt -Check	07/07/2023	16119	Humboldt Bay Coffee Co.	Office coffee	-77.85
Bill Pmt -Check	07/07/2023	16120	Liebert Cassidy Whitmore	May 2023 Legal Opinion	-100.50
Bill Pmt -Check	07/07/2023	16121	Local Worm Guy	Compost pickup - June 2023 917 & 633 3rd	-60.00
Bill Pmt -Check	07/07/2023	16122	Lynette Mullen	Consulting Services -Meeting Prep -June 2023	-1,543.75
Bill Pmt -Check	07/07/2023	16123	Mission Uniform & Linen	Janitorial services	-196.47
Bill Pmt -Check	07/07/2023	16124	Nicklas, Alida M	Mileage reimbursement - June 2023-2	-68.12
Bill Pmt -Check	07/07/2023	16125	North Coast Cleaning	Janitorial services	-970.00
Bill Pmt -Check	07/07/2023	16126	Pierson Building Center	917 3rd St: supplies to fix tripping hazard	-16.16
Bill Pmt -Check	07/07/2023	16127	Recology	Garbage service	-160.27
Bill Pmt -Check	07/07/2023	16128	SDRMA P&L	P&L 2023-24 Insurance package invoice	-85,728.27
Bill Pmt -Check	07/07/2023	16129	Times Printing Company	CCE mailers printing and postage	-789.14
Bill Pmt -Check	07/07/2023	16130	WREGIS	Transferred RECs - June 2023	-25.78
Paycheck	07/07/2023	ACH	Employees	Payroll	-72,907.29
Bill Pmt -Check	07/14/2023	ACH	Leapfrog Energy	June 2023 RA	-36,740.00
Check	07/20/2023	Debit	Umpqua Bank	Service Charges	-203.89
Liability Check	07/21/2023	ACH	EDD	Tax deposit Paydate 7/21/23	-7,697.62
Liability Check	07/21/2023	ACH	Internal Revenue Service	Tax deposit Paydate 7/21/23	-34,804.34
Liability Check	07/21/2023	ACH	Newport Group	Deferred compensation Paydate 7/21/23	-14,135.32
Liability Check	07/21/2023	ACH	CICCS Coalition for Controlling Insurance	EAP invoice 2023-7	-63.24
Bill Pmt -Check	07/21/2023	ACH	CalPine Corporation	Calpine June 2023 Costs	-65,105.16
Bill Pmt -Check	07/21/2023	ACH	Humboldt Sawmill Co.	June 2023 Electricity Charge	-753,932.68
Bill Pmt -Check	07/21/2023	ACH	Keenan	Anthem Medical Insurance July 2023	-30,599.66
Bill Pmt -Check	07/21/2023	ACH	PG&E Voluntary Allocation	Mar 2023 RA Long term & Short term	-41,199.06
Bill Pmt -Check	07/21/2023	ACH	Sterling Administration	FSA Healthcare and Dependent Care Funding	-1,950.00
Liability Check	07/21/2023	16131	Umpqua Bank	Health Savings Account Paydate 7/21/23	-72.07
Liability Check	07/21/2023	16132	NM Department of Workforce Solutions	UI, Q2 2023	-111.09
Liability Check	07/21/2023	16133	New Mexico Taxation and Revenue	Tax deposit, Q2 2023	-425.36
Liability Check	07/21/2023	16134	New Mexico Taxation and Revenue	Tax deposit, Q2 2023	-4.30
Check	07/21/2023	16135-41	NEM Customers	NEM Closeout	-883.13
Check	07/21/2023	16142	CCE Customer	PA Equipment Rebate - Res	-150.00
Check	07/21/2023	16143	CCE Customer	PA Equipment Rebate - Res	-50.00
Check	07/21/2023	16144	CCE Customer	PA Equipment Rebate - Res	-100.00
Check	07/21/2023	16145	CCE Customer	PA Equipment Rebate - Res	-400.00
Bill Pmt -Check	07/21/2023	16146	Aiqueous, LLC	Database services Jan-Dec 2023	-5,749.50
Bill Pmt -Check	07/21/2023	16147	Alber's Tractor and Ag Work	Mowing services for ACV solar site on 7/5/23	-1,600.00
Bill Pmt -Check	07/21/2023	16148	Amazon.com	Monthly billing - June 2023	-2,860.11
Bill Pmt -Check	07/21/2023	16149	Ameritas - Dental	Dental - August 2023	-2,199.64
Bill Pmt -Check	07/21/2023	16150	Ameritas - Vision	Vision - August 2023	-452.96
Bill Pmt -Check	07/21/2023	16151	Arcata Technology Center	Site Host Reimbursement 04/01- 06/30/2023	-394.06
Bill Pmt -Check	07/21/2023	16152	AT&T	RCAM charges: 07/01 - 07/31/2023	-917.94
Bill Pmt -Check	07/21/2023	16153	AT&T Long Distance	Phone charges 06/25/2023 - 07/24/2023	-203.37

Redwood Coast Energy Authority
Disbursements Report
As of July 31, 2023

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	07/21/2023	16154	Baker Tilly US, LLP	Accounting services - period ending 6/30/23	-4,295.00
Bill Pmt -Check	07/21/2023	16155	Bithell, M.	July 2023 Mileage Reimbursement	-146.72
Bill Pmt -Check	07/21/2023	16156	Blue Lake Rancheria	EVSE Host Reimbursement 04/01- 06/30/2023	-1,000.69
Bill Pmt -Check	07/21/2023	16157	CALPELRA	2023 CALPELRA Conference registration	-1,135.00
Bill Pmt -Check	07/21/2023	16158	Carter Properties, LLC	917 3rd Street Office Lease -August 2023	-2,300.00
Bill Pmt -Check	07/21/2023	16159	Chargepoint	Qty 8 3-year cloud plans- 07/26/2023	-7,480.00
Bill Pmt -Check	07/21/2023	16160	City of Arcata	June 2023 Excessive Energy Use Tax	-1,563.95
Bill Pmt -Check	07/21/2023	16161	City of Arcata	June 2023 Utility User Tax	-14,520.26
Bill Pmt -Check	07/21/2023	16162	City of Arcata	EVSE Host Reimbursement 04/01- 06/30/2023	-1,081.85
Bill Pmt -Check	07/21/2023	16163	City of Blue Lake	EVSE Host Reimbursement 04/01- 06/30/2023	-352.84
Bill Pmt -Check	07/21/2023	16164	City of Eureka-Water	Water bills for 633 & 917	-391.55
Bill Pmt -Check	07/21/2023	16165	City of Eureka - REVNet	EVSE Host Reimbursement 04/01- 06/30/2023	-898.67
Bill Pmt -Check	07/21/2023	16166	City of Trinidad	EVSE Host Reimbursement 04/01- 06/30/2023	-592.06
Bill Pmt -Check	07/21/2023	16167	Diamond, Nancy	June 2023 legal services	-11,318.60
Bill Pmt -Check	07/21/2023	16168	Frontier Energy, Inc.	PA Program Consulting - June 2023	-1,344.50
Bill Pmt -Check	07/21/2023	16169	HireRight	Background Check - new hire	-120.30
Bill Pmt -Check	07/21/2023	16170	HSU - Sponsored Programs Foundation	April & May 2023 engineering services	-10,083.61
Bill Pmt -Check	07/21/2023	16171	Humboldt Builders' Exchange	Specialty Listing - Energy Consultants, 1/4 page ad	-210.00
Bill Pmt -Check	07/21/2023	16172	Humboldt County DHHS	23/24 Annual HazMat Fees Record	-478.49
Bill Pmt -Check	07/21/2023	16173	Humboldt Crabs Baseball, Inc	7/30/23 Picnic-14 additional tickets	-140.00
Bill Pmt -Check	07/21/2023	16174	Law Office of David Peffer	May 2023 regulatory and legal support	-2,914.00
Bill Pmt -Check	07/21/2023	16175	Mission Uniform & Linen	Janitorial services	-27.53
Bill Pmt -Check	07/21/2023	16176	Nicklas, Alida M	Mileage reimbursement - July 2023-1	-114.63
Bill Pmt -Check	07/21/2023	16177	North Coast Unified Air Quality	EVSE Host Reimbursement 04/01- 06/30/2023	-654.98
Bill Pmt -Check	07/21/2023	16178	NYLEX.net, Inc.	Network support services - August 2023	-3,620.00
Bill Pmt -Check	07/21/2023	16179	O&M Industries	917 3rd St: Diagnostic inspection on heater	-100.00
Bill Pmt -Check	07/21/2023	16180	Open Door	EVSE Host Reimbursement 04/01- 06/30/2023	-229.79
Bill Pmt -Check	07/21/2023	16181	Optimum Business-633	633 3rd St: Phone & Internet - 06/28 - 07/27/2023	-1,100.45
Bill Pmt -Check	07/21/2023	16182	PG&E CCA	June 2023 CCE billing services	-21,944.93
Bill Pmt -Check	07/21/2023	16183	PG&E Office Utility	06/07-07/06/23 utilities for 917 3rd Street	-292.69
Bill Pmt -Check	07/21/2023	16184	Quest	VEEAM O365 Backup 1 yr for 37 users	-754.80
Bill Pmt -Check	07/21/2023	16185	Redwood Community Radio	Radio underwriting - Q1 2023/24	-780.00
Bill Pmt -Check	07/21/2023	16186	St. Joseph Hospital	EVSE Host Reimbursement 04/01- 06/30/2023	-1,378.54
Bill Pmt -Check	07/21/2023	16187	Times Printing Company	CCE mailer printing and postage	-1,455.41
Bill Pmt -Check	07/21/2023	16188	Ubeo Business Services	633 3rd St Printer Charges: 06/06-07/05/23	-227.01
Bill Pmt -Check	07/21/2023	16189	Verizon Wireless	Tablet/cell service 05/29 - 06/28/2023	-1,505.51
Bill Pmt -Check	07/21/2023	16190	Winzler, John	Office Lease - 633 3rd Street August 2023	-7,752.50
Paycheck	07/21/2023	ACH	Employees	Payroll	-85,509.26
Bill Pmt -Check	07/28/2023	ACH	CA Dept. of Tax & Fee Administration	Electrical Energy Surcharge Q2 2023	-43,097.00
Bill Pmt -Check	07/31/2023	ACH	Snow Mountain Hydro, LLC	June 2023 Electricity	-71,673.78
TOTAL					**-1,572,141.01**

Redwood Coast Energy Authority
Profit & Loss Budget vs. Actual
July 2023

	Jul 23	Budget	% of Budget
Ordinary Income/Expense			
Income			
5 REVENUE EARNED			
Total 5000 · Revenue - government agencies	20,562.32	10,641,170.00	0.19%
Total 5100 · Revenue - program related	489,684.09	35,000.00	1,399.1%
Total 5400 · Revenue-nongovernment agencies	19,801.10	400,000.00	4.95%
Total 5500 · Revenue - Electricity Sales	6,942,876.97	98,822,720.00	7.03%
Total 5 REVENUE EARNED	7,472,924.48	109,898,890.00	6.8%
Total Income	7,472,924.48	109,898,890.00	6.8%
Gross Profit	7,472,924.48	109,898,890.00	6.8%
Expense			
Total 6 WHOLESALE POWER SUPPLY	6,416,163.65	77,731,548.00	8.25%
Total 7 PERSONNEL EXPENSES	185,927.77	5,434,518.00	3.42%
Total 8.1 FACILITIES AND OPERATIONS	59,380.37	1,754,484.00	3.38%
Total 8.2 COMMUNICATIONS AND OUTREACH	2,332.90	622,590.00	0.38%
8.4 PROFESSIONAL & PROGRAM SRVS			
8400 · Regulatory	17,207.89	205,000.00	8.39%
8410 · Contracts - Program Related Ser	5,434.00	8,080,900.00	0.07%
8420 · Accounting	19,027.51	191,000.00	9.96%
8430 · Legal	18,819.70	195,000.00	9.65%
8450 · Wholesale Services - TEA	68,093.69	766,853.00	8.88%
8460 · Procurement Credit - TEA	14,115.00	635,821.00	2.22%
8470 · Data Management - Calpine	63,217.20	887,187.00	7.13%
Total 8.4 PROFESSIONAL & PROGRAM SRVS	205,914.99	10,961,761.00	1.88%
Total 8.5 PROGRAM EXPENSES	38,558.18	290,014.00	13.3%
Total 8.6 INCENTIVES & REBATES	767.19	591,500.00	0.13%
Total 9 NON OPERATING COSTS	203.89	304,500.00	0.07%
Total Expense	6,909,248.94	97,690,915.00	7.07%
Net Ordinary Income	563,675.54	12,207,975.00	4.62%
Net Income	**563,675.54**	**12,207,975.00**	**4.62%**

Redwood Coast Energy Authority
Balance Sheet
As of July 31, 2023

	Jul 31, 23
ASSETS	
Current Assets	
Checking/Savings	
1010 · Petty Cash	300.00
1060 · Umpqua Checking Acct 0560	1,201.02
1071 · Umpqua Deposit Cntrol Acct 8215	14,194,819.29
1075 · Umpqua Reserve Account 2300	1,700,000.00
1076 · First Republic Bank - 4999	62,263.94
Total Checking/Savings	15,958,584.25
Total Accounts Receivable	93,653.36
Other Current Assets	
1101 · Allowance for Doubtful Accounts	-4,024,187.45
1103 · Accounts Receivable-Other	15,154,461.66
1120 · Inventory Asset	21,715.00
1205 · Prepaid Insurance	19,409.39
1210 · Retentions Receivable	6,609.18
1499 · Undeposited Funds	26.00
Total Other Current Assets	11,178,033.78
Total Current Assets	27,230,271.39
Total Fixed Assets	9,019,615.35
Other Assets	
1700 · Security Deposits	4,053,623.26
Total Other Assets	4,053,623.26
TOTAL ASSETS	**40,303,510.00**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Total Accounts Payable	6,170,966.55
Total Credit Cards	16,964.71
Other Current Liabilities	
2002 · Deposits Refundable	1,521,045.01
2013 · Unearned Revenue - PA 2020-2023	136,075.28
Total 2100 · Payroll Liabilities	157,950.14
2200 · Accrued Expenses	
2221 · Electrical Energy Surcharge	12,491.41
Total 2200 · Accrued Expenses	12,491.41
Total Other Current Liabilities	1,827,561.84
Total Current Liabilities	8,015,493.10
Total Long Term Liabilities	6,218,497.58
Total Liabilities	14,233,990.68
Equity	
2320 · Investment in Capital Assets	117,400.25
3900 · Fund Balance	25,388,443.53
Net Income	563,675.54
Total Equity	26,069,519.32
TOTAL LIABILITIES & EQUITY	**40,303,510.00**

REDWOOD COAST Energy Authority

STAFF REPORT
Agenda Item # 4.4

AGENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Jocelyn Gwynn, Senior Power Resources Manager
SUBJECT:	2022 Power Source Disclosure and Power Content Label Attestation

BACKGROUND

Each year, the Board is presented with RCEA's power mix from the previous year that was submitted to the California Energy Commission (CEC) as part of the Power Source Disclosure (PSD) Program. Staff submitted the 2022 PSD Report (Exhibit I to Attachment A) to the CEC by the due date. The report shows RCEA's annual energy purchases from each generating facility from last year, and percentages of each resource type in the REpower and REpower+ products. Additionally, the PSD includes the greenhouse gas (GHG) emissions intensity of each product.

Staff have also prepared the 2022 Power Content Label (PCL) that is to be mailed out to all current RCEA customers and submitted to the CEC this fall. The PCL (Exhibit II to Attachment A) includes information from the PSD Report and compares RCEA's power content and GHG emissions to the state's overall mix and emissions.

SUMMARY

Staff ask that the Board adopt a resolution (Attachment A) formally approving and attesting to the information in the Power Source Disclosure and Power Content Label, as part of the documentation required by the CEC for compliance with the PSD Program.

RCEA's 2022 power mix was about 50% renewable, 45% carbon-free large hydro, and 5% unspecified sources, which is much improved over 2021 during which the Board elected to decrease environmental procurement to alleviate some of RCEA's financial challenges that year.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

Not applicable, this is a compliance requirement.

EQUITY IMPACTS

Not applicable, this is a compliance requirement.

FINANCIAL IMPACT

None.

STAFF RECOMMENDATION

Adopt Resolution 2023-8 Approving and Attesting to the Veracity of RCEA's 2022 Power Source Disclosure Report and Power Content Label.

ATTACHMENTS

Attachment A: Resolution 2023-8
- Exhibit I: RCEA 2022 Power Source Disclosure Report
- Exhibit II: RCEA 2022 Power Content Label

RESOLUTION NO. 2023-8

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE REDWOOD COAST ENERGY AUTHORITY APPROVING AND ATTESTING TO THE VERACITY OF THE 2022 POWER SOURCE DISCLOSURE REPORT AND POWER CONTENT LABEL

WHEREAS, Senate Bill 1305 was adopted in 1997, establishing an Electricity Generation Source Disclosure (also known as Power Source Disclosure or "PSD") Program, which requires retail suppliers of electricity to annually submit a PSD Report to the California Energy Commission ("CEC") and to annually mail a Power Content Label ("PCL") to their electricity customers; and

WHEREAS, Redwood Coast Energy Authority ("RCEA") is a retail supplier of electricity as defined by the PSD Program (Ca. Code of Regs., Title 20, Section 1391(r)); and

WHEREAS, the PSD Regulation requiring an annual audit by an outside certified public accountant of the information in the annual PSD Report, was updated effective May 4, 2020, with an exemption from this requirement for retail suppliers that are public agencies providing electric services, provided that the governing body of the public agency approves at a public meeting the submission to the CEC of an attestation of the veracity of the annual report for each electricity product; and

WHEREAS, RCEA is a public agency providing electric services; and

WHEREAS, the CEC exemption therefore allows the RCEA Board of Directors to approve an attestation of the veracity of RCEA's 2022 PSD Annual Report and PCL provided hereto as Exhibits I and II.

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that the Board:

1. Approves the attached 2022 Power Source Disclosure Report and Power Content Label for RCEA's REpower and REpower+ electricity products; and
2. Attests to the veracity of the information presented in the Power Source Disclosure and Power Content Label.

Adopted this 28th day of September 2023.

ATTEST:

Sheri Woo, RCEA Board Chair

Lori Taketa, Clerk of the Board

Date: _____

Date: _____

CLERK'S CERTIFICATE

I hereby certify that the foregoing is a true and correct copy of Resolution 2023-8 passed and adopted at a regular meeting of the Redwood Coast Energy Authority, County of Humboldt, State of California, held on the 28th day of September 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

Clerk of the Board, Redwood Coast Energy Authority

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
For the Year Ending December 31, 2022

Retail suppliers are required to use the posted template and are not allowed to make edits to this format. Please complete all requested information.

GENERAL INSTRUCTIONS

RETAIL SUPPLIER NAME
Redwood Coast Energy Authority

ELECTRICITY PORTFOLIO NAME
REpower

CONTACT INFORMATION	
NAME	Joseph Sloan
TITLE	Power Resources Specialist
MAILING ADDRESS	633 3rd St.
CITY, STATE, ZIP	Eureka, CA 95501
PHONE	(707) 269-1700
EMAIL	jsloan@redwoodenergy.org
WEBSITE URL FOR PCL POSTING	https://redwoodenergy.org/power-resources/

Submit the Annual Report and signed Attestation in PDF format with the Excel version of the Annual Report to PSDprogram@energy.ca.gov. Remember to complete the Retail Supplier Name, Electricity Portfolio Name, and contact information above, and submit separate reports and attestations for each additional portfolio if multiple were offered in the previous year.

NOTE: Information submitted in this report is not automatically held confidential. If your company wishes the information submitted to be considered confidential an authorized representative must submit an application for confidential designation (CEC-13), which can be found on the California Energy Commissions's website at https://www.energy.ca.gov/about/divisions-and-offices/chief-counsels-office.

If you have questions, contact Power Source Disclosure (PSD) staff at PSDprogram@energy.ca.gov or (916) 639-0573.

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
SCHEDULE 1: PROCUREMENTS AND RETAIL SALES
For the Year Ending December 31, 2022
Redwood Coast Energy Authority
RePower

Instructions: Enter information about power procurements underlying this electricity portfolio for which your company is filing the Annual Report. Insert additional rows as needed. All fields in white should be filled out. **Fields in grey auto-populate as needed and should not be filled out.** For EIA IDs for unspecified power or specified system mixes from asset-controlling suppliers, enter "Unspecified Power", "BPA", or "Tacoma Power" as applicable. For specified procurements of ACS power, use the ACS Procurement Calculator to calculate the resource breakdown comprising the ACS system mix. **Procurements of unspecified power must not be entered as line items below; unspecified power will be calculated automatically in cell N9**. Unbundled RECs must not be entered on Schedule 1; these products must be entered on Schedule 2. At the bottom portion of the schedule, provide the other electricity end-uses that are not retail sales including, but not limited to transmission and distribution losses or municipal street lighting. Amounts should be in megawatt-hours.

Retail Sales (MWh)	**591,992**
Net Specified Procurement (MWh)	562,606
Unspecified Power (MWh)	29,386
Procurement to be adjusted	-
Net Specified Natural Gas	-
Net Specified Coal & Other Fossil Fuels	-
Net Specified Nuclear, Large Hydro, Renewables, and ACS Power	562,606
GHG Emissions (excludes grandfathered emissions)	13,264
GHG Emissions Intensity (in MT CO_2e/MWh)	0.0224

DIRECTLY DELIVERED RENEWABLES

Facility Name	Fuel Type	State or Province	WREGIS ID	RPS ID	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	N/A
Monterey Regional Waste Management District	Biomass & biowa	CA	W540	60107A		10748	3,626		3,626	3,626	0.0027	10	
Monterey Regional Waste Management District	Biomass & biowa	CA	W770	60107A		10748	1,782		1,782	1,782	0.0027	5	
Monterey Regional Waste Management District	Biomass & biowa	CA	W771	60107A		10748	2,147		2,147	2,147	0.0027	6	
Monterey Regional Waste Management District	Biomass & biowa	CA	W541	60107A		10748	2,854		2,854	2,854	0.0027	8	
Pacific Lumber Co. - Pacific Lumber Co. Unit 1	Biomass & biowa	CA	W645	60083A		50049	26,889	1,482	25,407	25,407	0.0060	152	
Pacific Lumber Co. - Pacific Lumber Co. Unit 2	Biomass & biowa	CA	W790	60083A		50049	45,062	2,481	42,581	42,581	0.0060	254	
Pacific Lumber Co. - Pacific Lumber Co. Unit 3	Biomass & biowa	CA	W791	60083A		50049	45,062	2,481	42,581	42,581	0.0060	254	
Snow Mtn Hydro (Cove)	Eligible hydro	CA	W674	60178A		10707	5,235		5,235	5,235	-	-	
Snow Mtn. Hydro - Lost Creek 1	Eligible hydro	CA	W670	60179A		10708	406		406	406	-	-	
Snow Mtn. Hydro - Lost Creek 2	Eligible hydro	CA	W671	60180A		10708	185		185	185	-	-	
Copper Mountain Solar 4	Solar	CA	W5023	62662A		59814	27,000		27,000	27,000	-	-	
Redwood Coast Airport Microgrid	Solar	CA	W12135	64947A		64766	448		448	448	-	-	
Solar Star California XX, LLC - AVS 2 Solar Star	Solar	CA	W4457	61364A		58389	10150		10,150	10,150	-	-	
Solar Star California XX, LLC - AVS 2 Solar Star	Solar	CA	W4458	61364A		58389	6,850		6,850	6,850	-	-	
Townsite Project - Townsite Project	Solar	NV	W12063	64813A		P134	82,921		82,921	82,921	-	-	
Alta Wind I - Alta Wind I	Wind	CA	W1727	60794A		57282	19,000		19,000	19,000	-	-	
Alta Wind II - Alta Wind II	Wind	CA	W1841	60795A		57291	16,000		16,000	16,000	-	-	
Voyager Wind I	Wind	CA	W8807	63262A		60594	6,879		6,879	6,879	-	-	

FIRMED-AND-SHAPED IMPORTS

Facility Name	Fuel Type	State or Province	WREGIS ID	RPS ID	EIA ID of REC Source	EIA ID of Substitute Power	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	Eligible for Grandfathered Emissions?
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		

SPECIFIED NON-RENEWABLE PROCUREMENTS

Facility Name	Fuel Type	State or Province	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	N/A
Balch #1 PH	Large hydro	CA				217	559		559	559	-	-	
Balch #2 PH	Large hydro	CA				218	1,954		1,954	1,954	-	-	
Belden	Large hydro	CA				219	1,337		1,337	1,337	-	-	
Bucks Creek	Large hydro	CA				220	631		631	631	-	-	
Butt Valley	Large hydro	CA				221	573		573	573	-	-	
Caribou 1	Large hydro	CA				222	457		457	457	-	-	
Caribou 2	Large hydro	CA				223	2,272		2,272	2,272	-	-	
Cresta	Large hydro	CA				231	1,416		1,416	1,416	-	-	
Drum #1	Large hydro	CA				235	369		369	369	-	-	

Drum #2	Large hydro	CA				236	2,347		2,347	2,347	-	-	
Electra	Large hydro	CA				239	3,024		3,024	3,024	-	-	
Haas	Large hydro	CA				240	1,382		1,382	1,382	-	-	
James B Black	Large hydro	CA				249	2,910		2,910	2,910	-	-	
Kerckhoff #2 PH	Large hydro	CA				682	2,735		2,735	2,735	-	-	
Kings River	Large hydro	CA				254	647		647	647	-	-	
Pit 1	Large hydro	CA				265	930		930	930	-	-	
Pit 3	Large hydro	CA				266	959		959	959	-	-	
Pit 4	Large hydro	CA				267	2,517		2,517	2,517	-	-	
Pit 5	Large hydro	CA				268	4,394		4,394	4,394	-	-	
Pit 6	Large hydro	CA				269	1,921		1,921	1,921	-	-	
Pit 7	Large hydro	CA				270	2,039		2,039	2,039	-	-	
Poe	Large hydro	CA				272	3,044		3,044	3,044	-	-	
Rock Creek	Large hydro	CA				275	2,196		2,196	2,196	-	-	
Salt Springs	Large hydro	CA				279	1,099		1,099	1,099	-	-	
Stanislaus	Large hydro	CA				285	1,955		1,955	1,955	-	-	
Tiger Creek	Large hydro	CA				287	1,972		1,972	1,972	-	-	
NID Chicago Park	Large hydro	CA				412	918		918	918	-	-	
G.M. Shrum Hydroelectric Generation Facility	Large hydro	BC				P206	135,096		135,096	135,096	-	-	
Mica Hydroelectric Generation Facility	Large hydro	BC				P210	57,472		57,472	57,472	-	-	
Mid-C Hydro - Rock Island (Chelan County PUD)	Large hydro	WA				6200	13,901		13,901	13,901	-	-	
Lake Chelan Hydroelectric Facility Mid-C Hydro	Large hydro	WA				6424	64		64	64	-	-	
Rocky Reach (Chelan County PUD)	Large hydro	WA				3883	13,466		13,466	13,466	-	-	

PROCUREMENTS FROM ASSET-CONTROLLING SUPPLIERS

Facility Name	Fuel Type	N/A	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	N/A
										-	#N/A		
										-	#N/A		
										-	#N/A		
										-	#N/A		

END USES OTHER THAN RETAIL SALES	MWh

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
SCHEDULE 3: POWER CONTENT LABEL DATA
For the Year Ending December 31, 2022
REDWOOD COAST ENERGY AUTHORITY
REpower

Instructions: No data input is needed on this schedule. Retail suppliers should use these auto-populated calculations to fill out their Power Content Labels.

	Adjusted Net Procured (MWh)	Percent of Total Retail Sales
Renewable Procurements	296,052	50.0%
Biomass & Biowaste	120,978	20.4%
Geothermal	-	0.0%
Eligible Hydroelectric	5,826	1.0%
Solar	127,369	21.5%
Wind	41,879	7.1%
Coal	-	0.0%
Large Hydroelectric	266,554	45.0%
Natural gas	-	0.0%
Nuclear	-	0.0%
Other	-	0.0%
Unspecified Power	29,386	5.0%
Total	**591,992**	**100.0%**

Total Retail Sales (MWh)	**591,992**

GHG Emissions Intensity (converted to lbs CO_2e/MWh)	**49**

Percentage of Retail Sales Covered by Retired Unbundled RECs	**0.0%**

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
ATTESTATION FORM
For the Year Ending December 31, 2022
Redwood Coast Energy Authority
REpower

I, Joseph Sloan, Power Resources Specialist, declare under penalty of perjury, that the information provided in this report is true and correct and that I, as an authorized agent of Redwood Coast Energy Authority, have authority to submit this report on the retail supplier's behalf. I further declare that all of the electricity claimed as specified purchases as shown in this report was sold once and only once to retail customers.

Name: Joseph Sloan
Representing (Retail Supplier): Redwood Coast Energy Authority

Signature: 

Dated: 05/26/2023

Executed at: Eureka, CA

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
For the Year Ending December 31, 2022

Retail suppliers are required to use the posted template and are not allowed to make edits to this format. Please complete all requested information.

GENERAL INSTRUCTIONS

RETAIL SUPPLIER NAME
Redwood Coast Energy Authority

ELECTRICITY PORTFOLIO NAME
REpower+

CONTACT INFORMATION	
NAME	Joseph Sloan
TITLE	Power Resources Specialist
MAILING ADDRESS	633 3rd St.
CITY, STATE, ZIP	Eureka, CA 95501
PHONE	(707) 269-1700
EMAIL	jsloan@redwoodenergy.org
WEBSITE URL FOR PCL POSTING	https://redwoodenergy.org/power-resources/

Submit the Annual Report and signed Attestation in PDF format with the Excel version of the Annual Report to PSDprogram@energy.ca.gov. Remember to complete the Retail Supplier Name, Electricity Portfolio Name, and contact information above, and submit separate reports and attestations for each additional portfolio if multiple were offered in the previous year.

NOTE: Information submitted in this report is not automatically held confidential. If your company wishes the information submitted to be considered confidential an authorized representative must submit an application for confidential designation (CEC-13), which can be found on the California Energy Commissions's website at https://www.energy.ca.gov/about/divisions-and-offices/chief-counsels-office.

If you have questions, contact Power Source Disclosure (PSD) staff at PSDprogram@energy.ca.gov or (916) 639-0573.

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
SCHEDULE 1: PROCUREMENTS AND RETAIL SALES
For the Year Ending December 31, 2022
Redwood Coast Energy Authority
RePower+

Instructions: Enter information about power procurements underlying this electricity portfolio for which your company is filing the Annual Report. Insert additional rows as needed. All fields in white should be filled out. **Fields in grey auto-populate as needed and should not be filled out.** For EIA IDs for unspecified power or specified system mixes from asset-controlling suppliers, enter "Unspecified Power", "BPA", or "Tacoma Power" as applicable. For specified procurements of ACS power, use the ACS Procurement Calculator to calculate the resource breakdown comprising the ACS system mix. **Procurements of unspecified power must not be entered as line items below; unspecified power will be calculated automatically in cell N9**. Unbundled RECs must not be entered on Schedule 1; these products must be entered on Schedule 2. At the bottom portion of the schedule, provide the other electricity end-uses that are not retail sales including, but not limited to transmission and distribution losses or municipal street lighting. Amounts should be in megawatt-hours.

Retail Sales (MWh)	**6,363**
Net Specified Procurement (MWh)	6,363
Unspecified Power (MWh)	-
Procurement to be adjusted	0
Net Specified Natural Gas	-
Net Specified Coal & Other Fossil Fuels	-
Net Specified Nuclear, Large Hydro, Renewables, and ACS Power	6,363
GHG Emissions (excludes grandfathered emissions)	0
GHG Emissions Intensity (in MT CO_2e/MWh)	0.0000

DIRECTLY DELIVERED RENEWABLES

Facility Name	Fuel Type	State or Province	WREGIS ID	RPS ID	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	N/A
Townsite Project - Townsite Project	Solar	NV	W12063	64813A		P134	2,121	-	2,121	2,121	-	-	
Voyager Wind I	Wind	CA	W8807	63262A		60594	2,121	-	2,121	2,121	-	-	
Snow Mtn Hydro (Cove)	Eligible hydro	CA	W674	60178A		10707	2,121	-	2,121	2,121	-	-	
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		

FIRMED-AND-SHAPED IMPORTS

Facility Name	Fuel Type	State or Province	WREGIS ID	RPS ID	EIA ID of REC Source	EIA ID of Substitute Power	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	Eligible for Grandfathered Emissions?
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		

SPECIFIED NON-RENEWABLE PROCUREMENTS

Facility Name	Fuel Type	State or Province	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	N/A
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		
									-	-	#N/A		

PROCUREMENTS FROM ASSET-CONTROLLING SUPPLIERS

Facility Name	Fuel Type	N/A	N/A	N/A	N/A	EIA ID	Gross MWh Procured	MWh Resold	Net MWh Procured	Adjusted Net MWh Procured	GHG Emissions Factor (in MT CO_2e/MWh)	GHG Emissions (in MT CO_2e)	N/A
										-	#N/A		
										-	#N/A		
										-	#N/A		
										-	#N/A		

END USES OTHER THAN RETAIL SALES	MWh

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
SCHEDULE 3: POWER CONTENT LABEL DATA
For the Year Ending December 31, 2022
REDWOOD COAST ENERGY AUTHORITY
REpower+

Instructions: No data input is needed on this schedule. Retail suppliers should use these auto-populated calculations to fill out their Power Content Labels.

	Adjusted Net Procured (MWh)	Percent of Total Retail Sales
Renewable Procurements	6,363	100.0%
Biomass & Biowaste	-	0.0%
Geothermal	-	0.0%
Eligible Hydroelectric	2,121	33.3%
Solar	2,121	33.3%
Wind	2,121	33.3%
Coal	-	0.0%
Large Hydroelectric	-	0.0%
Natural gas	-	0.0%
Nuclear	-	0.0%
Other	-	0.0%
Unspecified Power	-	0.0%
Total	**6,363**	**100.0%**

Total Retail Sales (MWh)	**6,363**
GHG Emissions Intensity (converted to lbs CO_2e/MWh)	**-**
Percentage of Retail Sales Covered by Retired Unbundled RECs	**0.0%**

ASSET CONTROLLING SUPPLIER RESOURCE MIX CALCULATOR

Instructions: Enter total net specified procurement of ACS system resources into cell A8 or A23. In Column E, the calculator will determine quantities of resource-specific net procurement for entry on Schedule 1.

Bonneville Power Administration

Net MWh Procured	N/A	Resource Type	Resource Mix Factors	Resource-Specific Procurements from ACS
		Biomass & biowaste		-
		Geothermal		-
		Eligible hydroelectric		-
		Solar	0.00	-
		Wind		-
		Coal		-
		Large hydroelectric	0.84	-
		Natural gas		-
		Nuclear	0.11	-
		Other	0.01	-
		Unspecified Power	0.04	-

Tacoma Power

Net MWh Procured	N/A	Resource Type	Resource Mix Factors	Resource-Specific Procurements from ACS
		Biomass & biowaste		-
		Geothermal		-
		Eligible hydroelectric		-
		Solar		-
		Wind		-
		Coal		-
		Large hydroelectric	0.89	-
		Natural gas		-
		Nuclear	0.06	-
		Other		-
		Unspecified Power	0.05	-

2022 POWER SOURCE DISCLOSURE ANNUAL REPORT
ATTESTATION FORM
For the Year Ending December 31, 2022
Redwood Coast Energy Authority
REpower+

I, Joseph Sloan, Power Resources Specialist, declare under penalty of perjury, that the information provided in this report is true and correct and that I, as an authorized agent of Redwood Coast Energy Authority, have authority to submit this report on the retail supplier's behalf. I further declare that all of the electricity claimed as specified purchases as shown in this report was sold once and only once to retail customers.

Name: Joseph Sloan
Representing (Retail Supplier): Redwood Coast Energy Authority

Signature: 

Dated: 05/26/2023

Executed at: Eureka, CA

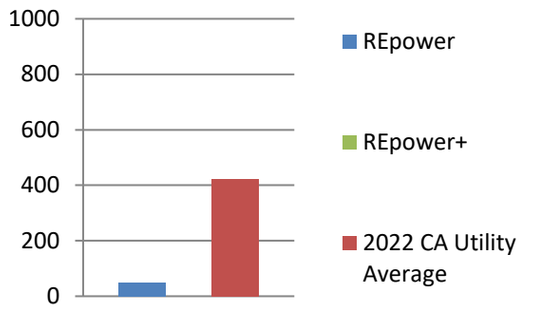
2022 POWER CONTENT LABEL

Redwood Coast Energy Authority

Redwoodenergy.org

Greenhouse Gas Emissions Intensity (lbs CO_2e/MWh)

REpower	REpower+	2022 CA Utility Average
49	**0**	**422**



Energy Resources	REpower	REpower+	2022 CA Power Mix
Eligible Renewable[1]	**50.0%**	**100.0%**	**35.8%**
Biomass & Biowaste	20.4%	0.0%	2.1%
Geothermal	0.0%	0.0%	4.7%
Eligible Hydroelectric	1.0%	33.3%	1.1%
Solar	21.5%	33.3%	17.0%
Wind	7.1%	33.3%	10.8%
Coal	**0.0%**	**0.0%**	**2.1%**
Large Hydroelectric	**45.0%**	**0.0%**	**9.2%**
Natural Gas	**0.0%**	**0.0%**	**36.4%**
Nuclear	**0.0%**	**0.0%**	**9.2%**
Other	**0.0%**	**0.0%**	**0.1%**
Unspecified Power[2]	**5.0%**	**0.0%**	**7.1%**
TOTAL	**100.0%**	**100.0%**	**100.0%**
Percentage of Retail Sales Covered by Retired Unbundled RECs[3]**:**	**0%**	**0%**	

[1]The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.

[2]Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

[3]Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.

For specific information about this electricity portfolio, contact:	**Redwood Coast Energy Authority (707) 269-1700**
For general information about the Power Content Label, visit:	https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program

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REDWOOD COAST Energy Authority

REPORT
Agenda Item # 4.5

AGENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Board Chair Sheri Woo
SUBJECT:	Executive Director Salary Schedule Update

SUMMARY

In December 2016, the RCEA Board adopted an employee compensation policy. To attract and retain qualified employees at all levels of the organization, it is the policy of RCEA to maintain fair and competitive salary ranges consistent with the labor market in which we compete for talented employees, within the economic constraints of RCEA. The RCEA Board identified and updated the comparable labor market agencies in February 2021.

The policy also states that RCEA will conduct a biennial salary survey to identify the "averaged" level of salary for each benchmark position. The most recent biennial salary survey was completed this spring, with the resulting Board-approved salary schedule update going into effect July 1, 2023.

However, in this and past salary surveys, the comparable labor market for the Executive Director position was not identified and benchmarked. This has resulted in a large difference between the salary of RCEA's Executive Director and the average of salaries of other agencies' Executive Directors (sometimes called General Manager or Chief Executive Officer).

The table below summarizes the top executive salary range midpoints, or the specific salary in 2022 for negotiated salaries without an adopted range, of five comparable energy-sector agencies. The table also presents an average of the five comparable salaries and the mid-point salary of our current Executive Director schedule.

Comparable Energy Agency	Top Executive Position	Salary range midpoint or negotiated salary as of 2022
City of Ukiah Electric Utility	Electric Utility Director	$188,500
Trinity County Public Utility District	General Manager	$253,273
Valley Clean Energy	Executive Officer	$240,000
Pioneer Community Energy	Executive Director	$276,659
Sonoma Clean Power	Chief Executive Officer	$394,022
Average		**$270,501**
RCEA (updated July 1, 2023)	Executive Director	$183,946

In keeping with our policies to maintain fair and competitive salary ranges that are necessary to retain and recruit talented employees, I recommend that the Board updates the midpoint of the Executive Director salary range to $267,000, effective July 1, 2023. This will bring RCEA's Executive Director salary schedule into alignment with those of comparable energy agencies.

It is notable that the Boards of three community choice aggregators south of us (San Mateo, San Diego, and Orange County) have hired top executives with management experience but little or no direct experience with power procurement. Our Executive Director has developed extensive energy procurement and CCA experience and has improved his management skills, knowledge, and judgement over his 13 years as our Executive Director.

FINANCIAL IMPACT

Our current Executive Director salary range is $166,230--$208,118. The proposed new midpoint of $267,000 would create a new range of $241,285--$302,086. Our current Executive Director is at step 7 of the salary schedule, so his salary would be increased to $280,517, effective July 1, 2023.

This change would result in a budget increase of $87,260 for the year plus an associated increase of $6,108 to annual employer-provided retirement contributions.

For fiscal year 2023-24, RCEA's personnel expenses are approximately $5.4 million, so this action would result in a 1.7% increase to personnel expenses. The increase to RCEA's total expenses is less than 0.1%.

RECOMMENDATION

Approve the attached update to the Executive Director salary range based on a midpoint of $267,000, effective July 1, 2023.

ATTACHMENT

Current and proposed Executive Director Salary Range

Redwood Coast Energy Authority - Job Classifications and Pay Scales, effective 7-1-2023

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
Assistant/Coordinator/Associate										
Hourly	21.52	22.07	22.63	23.21	23.81	24.40	25.01	25.64	26.28	26.94
Monthly	3,729.51	3,758.03	3,854.39	3,953.22	4,054.59	4,155.95	4,259.85	4,366.35	4,475.51	4,587.39
Annual	44,754.13	45,901.67	47,078.64	48,285.78	49,523.88	50,761.98	52,031.03	53,331.80	54,665.10	56,031.72
Specialist										
Hourly	31.34	32.14	32.97	33.81	34.68	35.57	36.48	37.42	38.35	39.31
Monthly	5,432.01	5,571.29	5,714.14	5,860.66	6,010.93	6,165.06	6,323.14	6,485.27	6,647.40	6,813.59
Annual	65,184.09	66,855.48	68,569.72	70,327.92	72,131.20	73,980.72	75,877.66	77,823.24	79,768.82	81,763.04
Senior Specialist										
Hourly	36.04	36.96	37.91	38.88	39.88	40.90	41.93	42.97	44.05	45.15
Monthly	6,246.81	6,406.98	6,571.26	6,739.76	6,912.57	7,089.82	7,267.06	7,448.74	7,634.96	7,825.83
Annual	74,961.71	76,883.80	78,855.18	80,877.11	82,950.88	85,077.83	87,204.77	89,384.89	91,619.51	93,910.00
Technician										
Hourly	37.04	37.99	38.96	39.96	40.98	42.03	43.11	44.22	45.32	46.46
Monthly	6,419.65	6,584.25	6,753.08	6,926.23	7,103.83	7,285.98	7,472.80	7,664.41	7,856.02	8,052.42
Annual	77,035.74	79,011.02	81,036.94	83,114.81	85,245.96	87,431.76	89,673.60	91,972.92	94,272.24	96,629.05
Senior Technician										
Hourly	42.59	43.68	44.80	45.95	47.13	48.34	49.55	50.79	52.06	53.36
Monthly	7,382.59	7,571.89	7,766.04	7,965.17	8,169.40	8,378.88	8,588.35	8,803.06	9,023.13	9,248.71
Annual	88,591.11	90,862.67	93,192.49	95,582.04	98,032.86	100,546.52	103,060.18	105,636.69	108,277.61	110,984.55
Manager										
Hourly	42.73	43.83	44.95	46.11	47.29	48.50	49.74	51.02	52.30	53.60
Monthly	7,407.28	7,597.21	7,792.01	7,991.81	8,196.73	8,406.90	8,622.46	8,843.55	9,064.64	9,291.25
Annual	88,887.40	91,166.56	93,504.17	95,901.71	98,360.73	100,882.80	103,469.54	106,122.60	108,775.67	111,495.06
Senior Manager										
Hourly	49.14	50.40	51.70	53.02	54.38	55.78	57.17	58.60	60.07	61.57
Monthly	8,518.38	8,736.80	8,960.82	9,190.58	9,426.24	9,667.93	9,909.63	10,157.37	10,411.31	10,671.59
Annual	102,220.51	104,841.55	107,529.79	110,286.96	113,114.84	116,015.22	118,915.60	121,888.49	124,935.70	128,059.09
Director										
Hourly	61.48	63.05	64.67	66.33	68.03	69.73	71.47	73.26	75.09	76.97
Monthly	10,655.75	10,928.97	11,209.20	11,496.62	11,791.40	12,086.19	12,388.34	12,698.05	13,015.50	13,340.89
Annual	127,868.94	131,147.64	134,510.40	137,959.38	141,496.80	145,034.22	148,660.08	152,376.58	156,185.99	160,090.64
Executive Director										
Hourly	79.92	81.97	84.07	86.22	88.44	90.65	92.91	95.24	97.62	100.06
Monthly	13,852.47	14,207.66	14,571.96	14,945.60	15,328.82	15,712.04	16,104.84	16,507.46	16,920.15	17,343.15
Annual	166,229.63	170,491.93	174,863.51	179,347.19	183,945.84	188,544.49	193,258.10	198,089.55	203,041.79	208,117.83

Redwood Coast Energy Authority - Job Classifications and Pay Scales, effective 7-1-2023 Proposed on 9/28/2023

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
Assistant/Coordinator/Associate										
Hourly	21.52	22.07	22.63	23.21	23.81	24.40	25.01	25.64	26.28	26.94
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Annual	102,220.51	104,841.55	107,529.79	110,286.96	113,114.84	116,015.22	118,915.60	121,888.49	124,935.70	128,059.09
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Annual	127,868.94	131,147.64	134,510.40	137,959.38	141,496.80	145,034.22	148,660.08	152,376.58	156,185.99	160,090.64
Executive Director										
Hourly	116.00	118.98	122.03	125.16	128.37	131.57	134.86	138.24	141.69	145.23
Monthly	20,107.06	20,622.62	21,151.41	21,693.75	22,250.00	22,806.25	23,376.41	23,960.82	24,559.84	25,173.83
Annual	241,284.67	247,471.45	253,816.88	260,325.00	267,000.00	273,675.00	280,516.88	287,529.80	294,718.04	302,085.99

REDWOOD COAST EnergyAuthority

STAFF REPORT
Agenda Item # 6.1

AGENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Richard Engel, Director of Power Resources
SUBJECT:	Health Impacts of Biomass Energy Plants on Nearby Populations

BACKGROUND

Many community members have recently submitted comments to the Board and RCEA's Community Advisory Committee (CAC) expressing concern about health impacts of emissions from locally generated biomass power that is procured by RCEA. In recent years, this biomass power from the Humboldt Sawmill Company located in Scotia has made up approximately 10% to 20% of RCEA's total energy portfolio.

At this time, there are no near-term procurement decisions regarding biomass energy coming before the Board. In the medium term, staff is tracking a California Public Utilities Commission proceeding that will allow community choice aggregators such as RCEA to participate in the statewide Bioenergy Market Adjusting Tariff (BioMAT) program. BioMAT allows electricity providers to purchase power at market rates from small (5 MW or smaller) bioenergy plants powered by feedstocks such as dairy biogas, food waste digester gas, or residual material from agriculture and sustainable forestry. Such plants would be new projects and subject to permitting and air quality regulations applicable to new generation facilities. Staff expect to bring the Board a proposal for BioMAT participation in the coming months.

SUMMARY

Staff invited Dr. Candy Stockton, Humboldt County's Public Health Officer, to provide a presentation on health impacts of biomass energy plants on nearby populations. She has kindly agreed to provide this presentation and the attached supporting documentation, and to answer questions the Board may have on this topic.

RCEA's 2019 strategic plan update called for establishment of a biomass technical advisory group (BTAG) to examine alternative, lower impact uses of the biomass feedstock generated by Humboldt County's forest products industry and regional forestland management. This group held its first meeting on September 7. The group includes representatives from local environmental groups, the forest products industry, the North Coast Unified Air Quality Management District (NCUAQMD), the US Forest Service, the County (represented by Dr. Stockton), UC Cooperative Extension, Cal Poly Humboldt, and the Watershed Center.

Staff requested Dr. Stockton's presentation in response to information provided to the Board and CAC by Dr. Wendy Ring and others regarding emissions from biomass plants in general and air quality violations on the part of Humboldt Sawmill Company in particular.

Staff take seriously the community's concerns about air quality and have had multiple discussions with NCUAQMD staff regarding the Scotia plant and its record on air quality compliance. NCUAQMD staff have confirmed the violations but have indicated the facility's pattern of compliance is fairly typical of emitters of this type and scale. They report that Humboldt Sawmill Company has worked in good faith with NCUAQMD to address the violations.

As previously reported to the Board, RCEA staff are in the early stages of planning a "citizen science" project to deploy air quality sensors to install at various locations around the county to monitor ambient air pollutant levels and look for impacts that may be attributable to biomass power production. NCUAQMD has offered to provide equipment for this purpose and guidance on its deployment. Dr. Stockton has recommended RCEA staff confer with air pollution epidemiology experts or knowledgeable faculty at Cal Poly Humboldt in planning this project.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

RCEA's RePower Humboldt plan includes the following strategy:

> **4.1.11.3 Investigate the Impacts of Biomass Emissions.** Support research and quantification of the gross and net emissions of greenhouse gases and criteria pollutants associated with local biomass energy production, and the potential emissions reductions associated with disposing of biomass feedstocks by other means. Support development of a locally specific model to estimate human exposure to criteria pollutants from biomass power plants under different operating scenarios. Adjust RCEA's biomass power procurement strategy as appropriate based on these findings and power producers' progress in limiting emissions, and in keeping with achieving RCEA's power mix goals for 2025 and 2030. Consider power producers' historic emissions performance in making procurement decisions.

Staff will ask BTAG to provide guidance on the various bioenergy-related items in RCEA's RePower Humboldt strategic plan, including assessment of the impacts of biomass emissions.

EQUITY IMPACTS

As this is an information-only item there are no direct equity impacts at this time. However, the location and operation of power plants can have significant equity impacts; increasing the Board's understanding of the environmental, economic, energy, and public health factors related to power production can help inform future Board decisions.

FINANCIAL IMPACT

This item is informational only and will have no direct financial impact for RCEA.

STAFF RECOMMENDATION

None. This item is informational only.

ATTACHMENTS

Eun Kyung Lee, Xiaobo Xue Romeiko, Wangjian Zhang, Beth J. Feingold, Haider A. Khwaja, Xuesong Zhang, and Shao Lin. “Residential Proximity to Biorefinery Sources of Air Pollution and Respiratory Diseases in New York State.” *Environmental Science & Technology* 2021 55 (14), 10035-10045

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Article

Residential Proximity to Biorefinery Sources of Air Pollution and Respiratory Diseases in New York State

Eun Kyung Lee, Xiaobo Xue Romeiko, Wangjian Zhang, Beth J. Feingold, Haider A. Khwaja, Xuesong Zhang, and Shao Lin*

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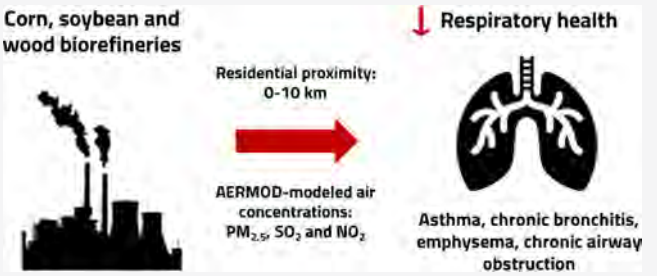
ABSTRACT: Understanding potential health risks associated with biofuel production is critical to sustainably combating energy insecurity and climate change. However, the specific health impacts associated with biorefinery-related emissions are not yet well characterized. We evaluated the relationship between respiratory emergency department (ED) visits (2011−2015) and residential exposure to biorefineries by comparing 15 biorefinery sites to 15 control areas across New York (NY) State. We further examined these associations by biorefinery types (e.g., corn, wood, or soybean), seasons, and lower respiratory disease subtypes. We measured biorefinery exposure using residential proximity in a cross-sectional study and estimation of biorefinery emission via AERMOD-simulated modeling. After controlling for multiple confounders, we consistently found that respiratory ED visit rates among residents living within 10 km of biorefineries were significantly higher (rate ratios (RRs) range from 1.03 to 3.64) than those in control areas across our two types of exposure indices. This relationship held across biorefinery types (higher in corn and soybean biorefineries), seasons (higher in spring and winter), air pollutant types (highest for NO_2), and respiratory subtypes (highest for emphysema). Further research is needed to confirm our findings.



KEYWORDS: *biorefineries, respiratory health, residential exposure, air pollution, cleaner energy, exposure measurement*

1. INTRODUCTION

To combat energy insecurity and climate change, biofuels have been promoted as alternative energy sources to traditional fossil fuels. Currently, a range of national and regional policies are mandating biofuels and encouraging the rapid growth of the biofuel industry. For example, the national Renewable Fuel Standard (RFS2) has requested that ∼36 billion gallons of biofuels should be produced by 2022.[1] As a result of such policies, biorefineries have expanded by almost 3.8 times over the last 2 decades (1997−2017), increasing from 56 to 211 facilities throughout the United States.[2] However, the burgeoning biorefineries emit fine particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2),[3,4] which may cause local increases of air pollution exposure and contribute to adverse respiratory outcomes for nearby residents. Therefore, to achieve energy security and climate adaptation in a sustainable manner, it is critical to understand the potential respiratory health impacts associated with biorefineries.

To date, little is known about the health risks associated with biorefinery-derived air pollutants. Recent studies suggest that biofuels generate higher amounts of $PM_{2.5}$ than fossil fuels.[5,6] For example, Hill et al.[5] and Sengupta et al.[6] found that county-level health costs and impacts from exposure to air pollutants derived from the biorefineries were much higher compared to those health impacts related to gasoline production. In addition, numerous mechanistic studies[7−13] indicate that criteria air pollutants, including $PM_{2.5}$, SO_2, and NO_2, which are also emitted from biorefinery facilities and other sources of pollution, are significantly associated with respiratory diseases. The possible biological mechanisms include irritating effect causing damages to the lung epithelial cells and pulmonary inflammation; damages to the tissues causing oxidative stress; and impairment of mucociliary clearance, which serves as defense mechanisms to environmental insults, causing bronchoconstriction.[11−13] Although these valuable studies began to shed light on the health impacts of biorefineries, significant knowledge gaps remain. First, the effect of residential proximity to biorefineries on respiratory health is unknown. Second, the seasonality of biorefinery-related air emissions and their associations with residential respiratory health have not been investigated. Additionally, the effect of biomass types on the associations between

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biorefinery-related air emissions and residential respiratory health is unknown.

To address these knowledge gaps, we examined the associations between the rates of respiratory diseases and exposure to biorefineries by utilizing two distinct and complementary exposure approaches, i.e., residential proximity to biorefineries and air dispersion-modeled concentrations of multiple pollutants ($PM_{2.5}$, SO_2, and NO_2). We also further assessed whether these relationships varied by biomass types, seasons, and respiratory subtypes.

2. MATERIALS AND METHODS

2.1. Study Population and Study Areas. This study population included all emergency department (ED) visits due to lower respiratory diseases among New York State (NYS) residents aged 1−85 living within 20 km from the biorefinery facilities and the control areas between 2011 and 2015. We excluded infants of age less than 1 because of the difficulties of differentiating asthma with bronchiolitis, viral infections, and other conditions at such early stages after birth.[14−16] Moreover, adults aged over 85 were not included in the study for the following reasons: (1) substantial increase in comorbidities and/or multimorbidities is observed among adults aged over 85, when compared to that among adults aged 65−85 based on the literature;[17−19] (2) changes in daily activity patterns (e.g., use of wheelchairs) and significant decrease in regular activities (e.g., less physical activity, less time spent outdoors) are notably evident among adults aged over 85;[20,21] and (3) within our study population, we found that the percentage of adults aged >85 comprised 1.48% of the total cases.

The study areas included 15 representative biorefinery sites in NYS. These 15 biorefinery facilities in NYS included two corn biorefineries, two soybean biorefineries, and 11 wood biorefineries. We obtained their production capacity, location, and building characteristics from the Renewable Fuel Association (RFA), EPA's National Air Pollutants Emissions Inventory Trends database and biorefinery websites.[2,22] These sites were defined as "biorefinery sites". The 15 selected biorefineries' production capacities ranged from 5.4 to 108.9 million gallons of biofuels per year (MGY). Detailed information on the biorefinery facilities and capacities is described in Table S1.

We selected 15 control areas within NYS matched to the 15 biorefinery sites by similar median income (<10% difference), age distribution (1−85 years), and % of African-Americans (<10% difference) at the census tract level. The control areas were selected ensuring that these areas do not overlap with any biorefinery sites or other control areas, as depicted in Figure S1. We also matched the number of the control areas with the number of biorefinery sites both in New York City (NYC) (1:1) and in the rest of the NYS (14:14) to account for differences in sociodemographic characteristics and exposure sources between NYC and the rest of the state.

2.2. Outcome Definition and Measurement. Information on respiratory hospital ED visits was retrieved from the NYS Department of Health Statewide Planning and Research Cooperative System (SPARCS) database. SPARCS data are NY state's widely used and legislatively mandated collection of health data information on hospital admissions and discharge data, covering ∼95% of all hospitals (excluding federal and psychiatric facilities) in NYS.[23] SPARCS data include information on principal diagnoses of 24 comorbidities, hospital admissions and discharge dates, sources of payment, date of birth, sex, race/ethnicity, length of stay, and street address. SPARCS data have been widely used in previous studies examining similar respiratory outcomes.[24−27]

The lower respiratory diseases (N = 1 285 163 ED visits) in this study include hospital ED visits from January 1, 2011 through December 31, 2015 due to four subtypes with primary diagnosis using the International Classification of Diseases (ICD), 9th and 10th versions.[28] We included the most common types of COPDs, i.e., chronic bronchitis (ICD 491), emphysema (ICD 492), and chronic airway obstruction (ICD 496) rather than other less common subtypes (ICD 490, 494, and 495), in addition to asthma (ICD 493). These respiratory diseases were chosen due to well-established associations previously examined among residents living near industrial areas.[29−32]

We defined the outcome as the number of these cases during the period from 2011 to 2015, overall and aggregated by sex, race, age groups (1−17, 18−44, 45−64, 65−85 years), and distances (0−5, >5−10, >10−15, >15−20 km) of residential proximity to biorefinery facilities and control areas. We obtained 5 year estimates of demographics data from the American Community Survey (ACS) for the years 2011−2015 by census tract.[33] Ethical approval was obtained from the Institutional Review Board of the University at Albany, State University of New York.

2.3. Exposure Definition and Assessment. As it is challenging to measure exposure directly, two complementary approaches were used to assess residential exposure to biorefineries: (1) based on straight-line distances (km) measured between the centroid of each biorefinery site or control area, which was further divided by four distance groups as a dichotomous variable, as described in Section 2.3.1; and (2) air dispersion-modeled concentrations of each air pollutant, including $PM_{2.5}$, SO_2, and NO_2 generated from AERMOD model (described in Section 2.3.2).

We chose to include residents living up to 20 km from the biorefineries since previous studies examining air pollutants from point sources of pollution or industries have demonstrated environmental health impacts on residents up to this distance.[34−37] To identify a threshold cutoff distance of increased risk for respiratory ED visits, the areas surrounding each of the 30 sites (15 biorefinery centroids and 15 census tract centroids) were divided into four distance groups according to the distance to each centroid (0−5, >5−10, >10−15, or >15−20 km). We first examined the range to 20 km and then refined our analyses when we identified 10 km as the possible threshold of health risks. Therefore, most of the analyses were conducted within 10 km (Figure S1).

2.3.1. Residential Proximity to Biorefinery Facilities and Control Areas. All residential addresses of cases and the locations of biorefinery facilities and control areas were geocoded to the street level using ArcGIS (version 10.4, ESRI, Redlands, CA).[38] Residential proximity was measured based on straight-line distances (in km) from the center of each biorefinery facility to the households of cases for the biorefinery sites and from the census tract centroids to the households of cases for the "control areas". Cases were then assigned to the census tracts of the residences to calculate the aggregate number of cases by distance groups (e.g., 0−5 km) (Figure S1). Analyzing the data at a finer geographic scale was not possible due to the lack of availability of census demographics at smaller units (such as census block groups

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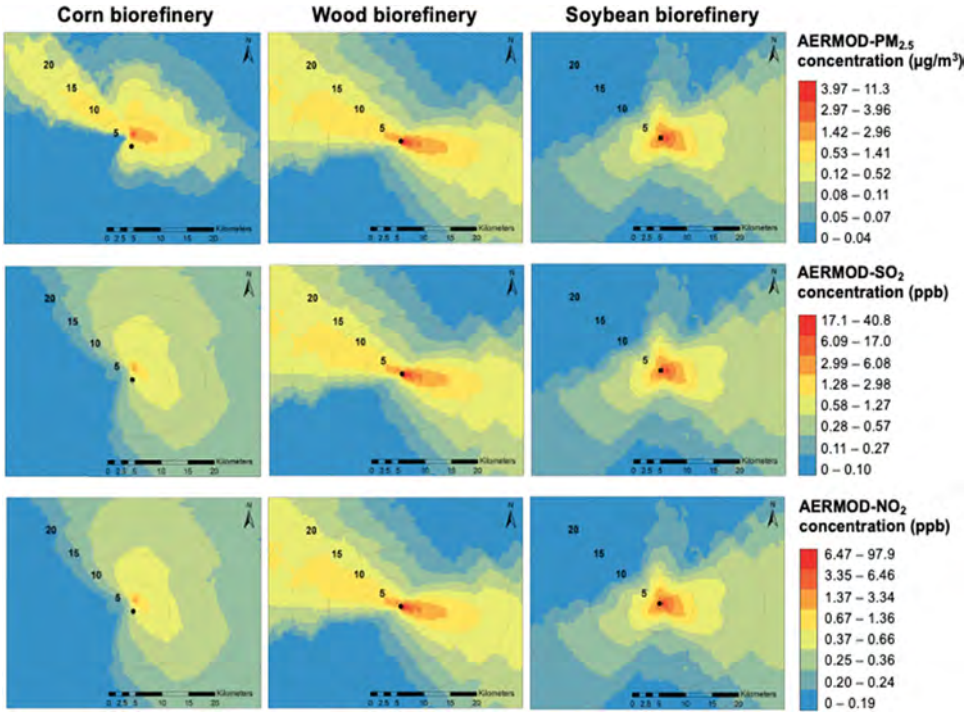

Figure 1. Heat maps showing the dispersion of AERMOD-modeled air pollutants of $PM_{2.5}$, SO_2, and NO_2 by sources of emission (corn, soybean, and wood biorefineries). Black dots represent biorefinery facilities and the gray circles represent distances, and the numbers indicate the distances from the biorefinery facilities (up to 20 km).

or blocks) and the rare occurrences of our outcomes of interest in the data set.

2.3.2. AERMOD Modeling Air Concentrations. The daily air concentrations of fine particulate matter ($PM_{2.5}$, $\mu g/m^3$), sulfur dioxide (SO_2, ppb), and nitrogen dioxide (NO_2, ppb) up to 20 km radii from each of the biorefineries were quantified using the American Meteorological Society and the U.S. EPA (AMS/EPA) Regulatory Model (AERMOD) over a 5 year period (2011−2015). AERMOD-modeled air pollutants were simulated in biorefinery sites only. The selected air pollutants ($PM_{2.5}$, SO_2, and NO_2) are common and major air pollutants from the operational processes[39] in biorefineries.[4,40]

The AERMOD dispersion model, which was approved and preferred by the U.S. EPA for regulatory purposes, is one of the well-recognized air dispersion models for simulating air concentrations from stationary point sources.[41] Several studies applied AERMOD simulations to examine the health impacts associated with residential exposure to air pollution among residents living near industrial sites.[32,42,43] The AERMOD dispersion model was chosen due to its high accuracy and reliability in estimating stationary point sources of air concentrations.[41,44−46] In addition, the AERMOD model simulations have previously been validated against several field site measurements in Canada,[47] Thailand,[48] and several parts of the United States.[49,50]

The AERMOD model is composed of three preprocessors: (1) the AERMOD Meteorological Preprocessor (AERMET), (2) the AERMOD Terrain Preprocessor (AERMAP), and, (3) the Building Profile Input Program for PRIME (BPIPPRM) (for details, see Figure S2 and Table S2).[51,52] Based on the processed outputs from the three preprocessors, we processed AERMOD (v.18081) to obtain the daily air concentrations of $PM_{2.5}$ ($\mu g/m^3$), SO_2 (ppb), and NO_2 (ppb) from 2011 to 2015 at the grid level (1 km × 1 km), yielding a total of 505−541 receptor points within 20 km from each biorefinery facility (Figure 1).[53]

2.4. Covariates. Covariates in this study included (1) the individual patients' age, race, and sex obtained from the SPARCS database;[23] (2) county-level smoking rates (2011−2012) acquired from the Global Health Exchange[54] (Figure S3); (3) meteorological variables (seasonal mean temperature and relative humidity measured from the closest weather station) obtained from the U.S. EPA;[55] and (4) annual mean air pollutant concentrations of $PM_{2.5}$, SO_2, and NO_2 of the nearest air monitors from the biorefinery facilities and control areas for years 2011−2015 obtained from the U.S. EPA.[55] The confounding variables were selected based on evidence in the existing literature on well-established risk factors for respiratory diseases,[56,57] especially those factors related to both respiratory diseases and air pollution exposure or proximity to industrial facilities,[58−62] as well as by consulting subject experts and considering biological plausibility.

2.5. Statistical Analysis. Using Poisson regression models, we regressed the aggregate number of ED visits due to respiratory diseases per distance areas (e.g., 0−5 km) on either the residential proximity to biorefineries or the AERMOD-modeled air concentrations of $PM_{2.5}$, SO_2, and NO_2 while controlling for multiple confounders. We ran separate models by distance groups (e.g., 0−5 km), biorefinery types (e.g., corn biorefinery sites), seasons (e.g., spring), as well as for the different outcomes of different respiratory subtypes (e.g., asthma). For example, for the 0−5 km category for the 30 locations (15 around biorefinery and 15 around control areas), we ran a model as follows (eq 1)

$$\ln(\text{case}) \sim \text{exposure}_{(\text{site/area})} + \text{sex} + \text{age} + \text{race} + \text{smoking} + \text{offset}_{(\text{population})} + \text{other confounders} \quad (1)$$

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Table 1. Adjusted Rate Ratios (RRs) and 95% Confidence Intervals of the Associations between Respiratory Morbidity[a]

		adjusted RR (95% CI)[d]			
	all respiratory (N = 547 437)	asthma (N = 507 066)	chronic bronchitis (N = 27 832)	emphysema (N = 1638)	chronic airway obstruction (N = 10 901)
(A) Residential Proximity to Biorefineries (in km)[b]					
0−5	3.64 (3.47, 3.81)	3.46 (3.29, 3.64)	4.95 (4.01, 6.13)	18.2 (4.35, 75.9)	5.29 (4.35, 6.42)
>5−10	1.50 (1.44, 1.56)	1.42 (1.36, 1.49)	3.02 (2.46, 3.71)	0.17 (0.01, 1.57)	2.06 (1.71, 2.49)
>10−15	0.69 (0.66, 0.72)	0.69 (0.66, 0.72)	0.68 (0.55, 0.85)	0.95 (0.31. 2.92)	0.59 (0.38, 0.94)
>15−20	0.55 (0.52, 0.58)	0.56 (0.53, 0.59)	0.38 (0.29, 0.48)	0.27 (0.07, 0.99)	0.39 (0.23, 0.68)
(B) AERMOD Modeling Air Pollutants (in km)[b,c]					
$PM_{2.5}$ ($\mu g/m^3$)					
0−5	1.15 (1.11, 1.20)	1.10 (1.09, 1.10)	1.13 (1.13, 1.15)	1.25 (1.12, 1.39)	1.14 (1.12, 1.15)
>5−10	1.00 (0.99, 1.01)	1.01 (1.01, 1.01)	1.02 (1.02, 1.03)	0.97 (0.93, 1.01)	1.01 (1.01, 1.02)
>10−15	1.00 (0.99, 1.00)	0.99 (0.99, 0.99)	0.99 (0.99, 0.99)	0.99 (0.98, 1.02)	0.99 (0.98, 0.99)
>15−20	0.99 (0.99, 1.00)	0.99 (0.99, 0.99)	0.99 (0.99, 0.99)	0.99 (0.98, 1.00)	0.99 (0.98, 0.99)
SO_2 (ppb)					
0−5	2.07 (1.68, 2.68)	1.59 (1.57, 1.63)	1.83 (1.69, 1.98)	2.98 (1.74, 5.12)	1.87 (1.74, 2.02)
>5−10	1.02 (0.97, 1.07)	1.03 (1.03, 1.04)	1.11 (1.09, 1.13)	0.85 (0.69, 1.04)	1.07 (1.05, 1.08)
>10−15	0.97 (0.94, 1.01)	0.97 (0.97, 0.97)	0.97 (0.95, 0.99)	0.99 (0.91, 1.09)	0.96 (0.93, 0.99)
>15−20	0.95 (0.93, 0.98)	0.97 (0.97, 0.97)	0.96 (0.94, 0.97)	0.92 (0.85, 0.99)	0.96 (0.93, 0.98)
NO_2 (ppb)					
0−5	2.17 (1.74, 2.87)	1.64 (1.61, 1.68)	1.89 (1.74, 2.07)	3.19 (1.80, 5.65)	1.95 (1.80, 2.10)
>5−10	1.02 (0.96, 1.10)	1.04 (1.04, 1.04)	1.14 (1.12, 1.17)	0.81 (0.62, 1.06)	1.09 (1.07, 1.12)
>10−15	0.97 (0.93, 1.01)	0.97 (0.96, 0.97)	0.97 (0.95, 0.99)	0.99 (0.89, 1.12)	0.95 (0.91, 0.99)
>15−20	0.96 (0.92, 0.98)	0.96 (0.96, 0.97)	0.94 (0.93, 0.96)	0.99 (0.85, 0.99)	0.95 (0.95, 0.98)

[a](A) Residential proximity to biorefineries (0−20 km) and (B) AERMOD-modeled air pollutants of $PM_{2.5}$, SO_2, and NO_2 (0-20 km) from 15 biorefinery facilities in NYS, 2011−2015. Abbreviations: RR, rate ratio; CI, confidence intervals. [b]All models were adjusted for sex, age, race, county-level smoking rate, temperature, relative humidity, and background air pollutants of $PM_{2.5}$, SO_2, and NO_2. [c]RRs were estimated based on $e^{\beta \times IQR}$. [d]All values were statistically significant with p-values <0.05.

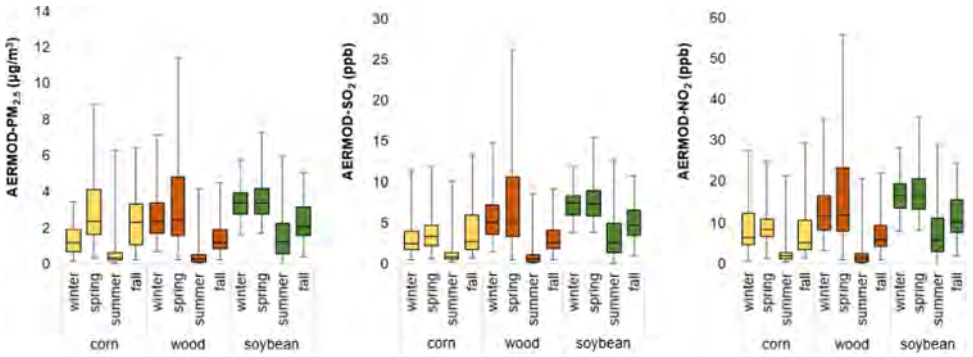

Figure 2. Seasonal estimates of AERMOD-modeled air concentrations of $PM_{2.5}$, SO_2, and NO_2 by biorefinery type (corn, wood, and soybean) within 10 km from biorefinery facilities in NYS, 2011−2015. The box plots show the median and interquartile range (IQR) values, and the error bars represent the minimum and maximum values.

where case represents the number of ED visits aggregated by sex (males and females), age groups (1−17, 18−44, 45−64, 64−85), and race (Whites, Black or African-Americans, Native Americans, Asians, Native Hawaiians or Pacific Islanders, and other races) analyzed within the designated distances (e.g., 0−5 km) or locations (e.g., corn biorefinery sites); exposure was either a dichotomous variable indicating (a) biorefinery site or control area or (b) the annual mean concentrations of $PM_{2.5}$, SO_2, or NO_2 simulated using the AERMOD model or control area; sex, age, and race were indicators of corresponding groups; smoking represents the smoking rate of the county where the study population was located in; and offset represents the 2011−2015 number of population of the corresponding distance groups retrieved from the American Community Survey (ACS).[33] Additionally, we adjusted for other confounders as listed in Section 2.4.

We obtained the rate ratios (RRs) of respiratory diseases from the models and subsequently identified a distance (0−5, >5−10, >10−15, or >15−20 km) at which no associations were observed (Table 1). Once identified, the affected areas were further divided and analyzed every 2 km (i.e., 0−2, >2−4, >4−6, >6−8, and >8−10 km) since, in this study, we identified 10 km as the cutoff point for posing health risks based on the previous step. We chose to analyze in 2 km intervals as opposed to 1 km due to the small sample size within 1 km intervals. All of the analyses were stratified by distances, biorefinery types, seasons, pollutant types, and disease subtypes.

For models with the mean concentration of air pollutants as the major exposure, RRs were scaled to each interquartile range (IQR) increase in the concentrations. Each pollutant was evaluated individually as separate exposures, but a multi-

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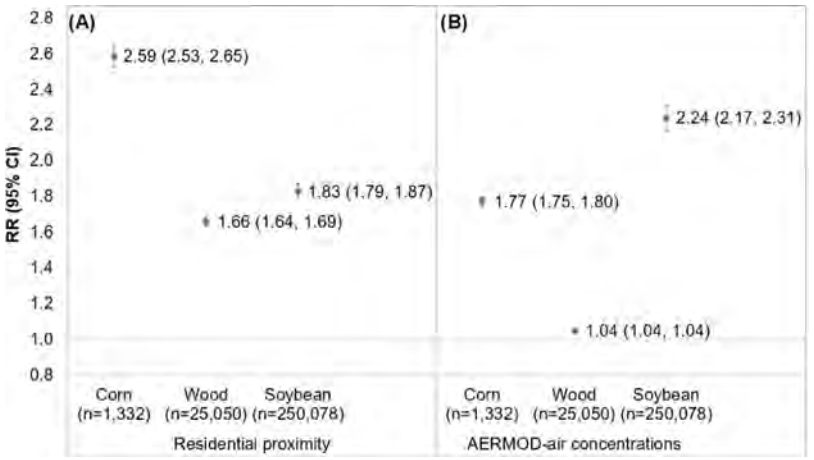

Figure 3. Adjusted rate ratios (RRs) and 95% confidence intervals of the associations between respiratory diseases. (A) Residential proximity to biorefineries and (B) AERMOD-modeled air concentrations by biorefinery type within 10 km from 15 biorefinery facilities (biorefinery sites) compared to the control areas in NYS, 2011−2015. All models were adjusted for age, race, sex, county-level smoking rate, seasonal mean temperature and relative humidity, and background air pollutants of $PM_{2.5}$, SO_2, and NO_2.

pollutant model was used to adjust for the concentrations of $PM_{2.5}$, NO_2, and SO_2 simultaneously. Two-tailed p-values of <0.05 were considered statistically significant. Estimated rate ratios in relation to the exposure were reported with their respective 95% confidence intervals.[63] All statistical analyses were performed using SAS software version 9.4.[64]

3. RESULTS

3.1. Spatial−Temporal Variations of the Modeled Air Pollutants. AERMOD-modeled $PM_{2.5}$, SO_2, and NO_2 mean concentrations decreased with increasing distance from the biorefinery facilities (Figure 1). The modeled concentrations observed within 10 km from the biorefineries were 8−10 times higher compared to the air concentrations beyond 10 km (Table S3). The mean values of AERMOD-modeled air concentrations within 10 km from the biorefinery facilities were 0.39 $\mu g/m^3$, 0.75 ppb, and 0.45 ppb for $PM_{2.5}$, SO_2, and NO_2, respectively, whereas the AERMOD-modeled air concentrations farther away from the biorefinery facilities (i.e., >10 km) were lower, with mean values of 0.05 $\mu g/m^3$, 0.08 ppb, and 0.05 ppb for $PM_{2.5}$, SO_2, and NO_2, respectively.

Moreover, the present study showed substantial seasonal variability in AERMOD-modeled air pollutants across the 5 year period of the study (2011−2015) and by biorefinery types (Figure 2). The median AERMOD-modeled $PM_{2.5}$, SO_2, and NO_2 levels were, in general, higher during the spring and winter seasons (except for $PM_{2.5}$ levels from corn biorefineries that were higher during fall than other seasons) compared to those of other seasons (i.e., summer and fall).

3.2. Residential Proximity to Biorefineries and Respiratory Health (Overall and Respiratory Subtypes). Table 1 describes the association between biorefinery exposures and respiratory health based on two exposure indicators. Based on residential proximity, we found that living within 5 km from biorefinery facilities was significantly and positively associated with overall respiratory ED visit rates (RR: 3.64, 95% CI: 3.47, 3.81), when compared to those in control areas (Figure S4A). The likelihood of visiting ED among those living between >5 and 10 km from biorefinery facilities was 50% higher (95% CI: 1.44, 1.56) compared to those in control areas. However, we found protective effects of exposure on lower respiratory diseases (RRs ranging from 0.55 to 0.69) among residents living beyond 10 km (10−20 km) from the biorefineries compared to those of their control area counterparts. In this study, we also observed particularly high ED visit rates due to emphysema (RR: 18.2, 95% CI: 4.35, 75.9) among residents living within 5 km from a biorefinery facility, followed by asthma (RR: 3.46, 95% CI: 3.29, 3.64), chronic bronchitis (RR: 4.95, 95% CI: 4.01, 6.13), and chronic airway obstruction (RR: 5.29, 95% CI: 4.35, 6.42). In contrast, we observed a 5−83% decreased likelihood of visiting ED due to emphysema for residents living beyond 5 km from biorefinery facilities (>5−20 km) compared to those in control areas. For all other respiratory subtypes (i.e., chronic bronchitis, asthma, chronic airway obstruction), we found consistently increased ED visit rates among residents living within 10 km from the biorefinery facilities (RRs ranging from 1.42 to 5.29), while we found 5−73% decreased ED visit rates among those living beyond 10 km from biorefinery facilities.

When we examined the associations based on AERMOD-modeled pollutants, we observed similar trends, where higher likelihood of visiting ED due to emphysema was observed among residents living within 5 km from biorefinery facilities (RR: 1.25, 95% CI: 1.12, 1.39). For all other respiratory diseases (i.e., chronic bronchitis, asthma, chronic airway obstruction), we found increased ED visit rates for those living within 10 km from the biorefinery facilities (RRs ranging from 1.01 to 1.95). These associations varied significantly depending on where residents lived (near corn, soybean, or wood biorefineries), as described in Section 3.3. Results based on modeled pollutants also revealed the strongest associations with overall lower respiratory diseases among those residing within 5 km from a biorefinery facility (RR: 1.44, 95% CI: 1.43, 1.46), followed by residents living farther away (>5−10 km) (RR: 1.03, 95% CI: 1.03, 1.04) (Figure S4B). Furthermore, when we examined the trends of respiratory risks among residents living within 10 km from biorefinery facilities, we found decreasing associations of modeled air pollutants and respiratory health with increasing distance from the biorefineries (Table S4). However, these decreasing trends were nonexistent when examined based on residential proximity.

3.3. Variation in the Associations among Biorefinery Types. This study found that the likelihood of having respiratory diseases was higher among residents living near

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corn biorefineries (RR: 2.59, 95% CI: 2.53, 2.65), followed by soybean (RR: 1.83, 95% CI: 1.79, 1.87) and wood biorefineries (RR: 1.66, 95% CI: 1.64, 1.69) (Figure 3A). When we examined the associations based on the modeled air pollutants, we found the strongest associations among those living in close proximity to soybean (RR: 2.24, 95% CI: 2.17, 2.31), followed by corn (RR: 1.77, 95% CI: 1.75, 1.79) and wood biorefineries (RR: 1.04, 95% CI: 1.04, 1.04) (Figure 3B).

The associations between residential proximity to biorefineries and respiratory outcomes varied by types of air pollutants examined ($PM_{2.5}$ vs SO_2 vs NO_2) (Table S5). Exposure to the modeled pollutants of NO_2 (RR: 3.63, 95% CI: 3.46, 3.80) and SO_2 (RR: 1.71, 95% CI: 1.68, 1.74) was strongly associated with respiratory-related ED visits in soybean biorefinery areas compared to those in control areas, whereas these associations in these sites were lower for $PM_{2.5}$ exposures (RR: 1.38, 95% CI: 1.36, 1.39). We found similar patterns among residents living near wood biorefineries, where we observed stronger associations due to exposure to NO_2 (RR: 1.06; 95% CI: 1.05, 1.06) and SO_2 (RR: 1.07, 95% CI: 1.07, 1.07), relative to $PM_{2.5}$ (RR: 1.003, 95% CI: 1.003−1.003) compared to control areas. However, among residents living near corn biorefinery facilities, we found that the associations were stronger for the modeled $PM_{2.5}$ (RR: 2.05, 95% CI: 2.01, 2.08) relative to NO_2 (RR: 1.92, 95% CI: 1.89, 1.95) and SO_2 exposures (RR: 1.35, 95% CI: 1.34, 1.36) compared to control sites.

3.4. Seasonal Variation in the Associations between Residential Proximity to Biorefineries and Respiratory Health. Results from this study revealed seasonal variation in the associations between respiratory morbidity and residential proximity to biorefineries and biorefinery-emitted air pollutants (Figure S5). Based on residential proximity, we observed moderate seasonal variability in the associations of biorefinery exposures and lower respiratory diseases, with RRs ranging from 1.32 to 1.39 (Figure S6A). When we examined the associations based on the modeled pollutants of $PM_{2.5}$, SO_2, or NO_2 individually from all three types of biorefineries, the likelihood of visiting ED due to lower respiratory diseases for those living within 10 km from the biorefineries was the strongest during spring (RR: 6.22, 95% CI: 5.75, 6.74), followed by winter (RR: 5.24, 95% CI: 4.89, 5.64) and the lowest during the summer (RR: 3.42, 95% CI: 3.24, 3.60) (Figure S6B).

4. DISCUSSION

4.1. Residential Proximity to Biorefineries and Respiratory Health. In this study, we observed a 3−50% increase in respiratory ED visits among residents living within 10 km of biorefinery facilities compared to that of their counterparts living in control areas. However, these relationships were not evident among residents living beyond 10 km from the biorefineries. Although there is no literature available regarding the health effects associated with residential proximity to biorefinery facilities, our findings were consistent with the findings from previous epidemiological studies conducted in industrial areas in several countries.[32,37,65,66] For example, an Italian study based on five wood factories and two chipboard industries also showed significantly increased odds of respiratory ED visits among children living within 2 km from at least one chipboard industry.[35] This study also observed a decreasing trend of respiratory diseases with increasing distance from the biorefinery facilities, which was consistent by using both exposure indices. In fact, our results reflect a possible protective relationship beyond 10 km distance. This could be due to some uncontrolled confounders such as local unknown exposure sources, greenness coverage, residual socioeconomic confounders, or any of a host of unknown factors within this large spatial distance. Further evaluation of this finding in future work may help explain it.

4.2. Associations Using AERMOD-Modeled Air Pollutants. The present study revealed that residential proximity to biorefineries (<10 km) was significantly associated with all three air pollutants (NO_2, SO_2, and $PM_{2.5}$) emitted from the biorefinery facilities, with the strongest association observed with NO_2. A cross-sectional study[67] based on children in five German communities also found that increases in NO_2 levels by 10−70 $\mu g/m^3$ were associated with a 28% increase in obstructive bronchitis cases, which corroborates the findings of the present study. Additionally, mechanistic studies[11,13] have shown that NO_2 suppresses alveolar macrophages, which are the white blood cells responsible for the initiation of an immune response against foreign organisms.

Moreover, several epidemiological and toxicological studies have supported that exposure to SO_2 is associated with several respiratory symptoms.[32,60,68] Potential biological mechanisms that may explain the increased risk of respiratory symptoms due to SO_2 include the following: (1) the oxidizing and irritating effect of SO_2 causing damage to the lung epithelial cells and pulmonary inflammation[12] and (2) the impairment of mucociliary clearance, which serves as the respiratory system's defense against environmental insults, causing bronchoconstriction.[69]

The modeled $PM_{2.5}$ also showed significant relationship with lower respiratory symptoms as $PM_{2.5}$ are largely known to cause adverse health effects from oxidative stress and damages to respiratory tract cells and alveolar macrophages[7−10] due to their microscopic size and composition of both inorganic and organic materials.[70,71] However, the magnitude of this association was lower compared to the associations with SO_2 or NO_2. This is likely due to the amount of $PM_{2.5}$ (mean emission rates: 1.93 g/s) emitted from the biorefineries, which was roughly 8−13 times lower than the amounts of SO_2 or NO_2 levels (mean emission rates: 24.5 and 15.7 g/s, respectively). Results from this study highlight the importance of including SO_2 and NO_2 air pollutants in future studies due to the demonstrated high risks of their contribution to respiratory ED visits.

4.3. Associations by Respiratory Subtypes. This study found that, among residents living within 5 km from biorefinery facilities, all respiratory subtypes of ED visit rates were statistically associated with biorefinery exposures. Among them, the risk of emphysema was the highest. Findings from this study corroborate with several prior studies showing evidence that residential proximity to industrial facilities, which emit similar air pollutants to biorefineries (i.e., fine particulates, NO_2 and SO_2), was associated with increased risks of developing emphysema.[31,72] For example, a cross-sectional study[31] in South Korea found that the odds of having emphysema were 2.9 times higher among residents living within 1 km from a cement plant compared to those living ≥5 km away from that same plant. Similarly, the multiethnic study of atherosclerosis (MESA) cohort study[72] conducted in six regions of the United States observed that the percentage of emphysema in adults (aged 45−64) increased by 0.11 and 0.06 for every 2 $\mu g/m^3$ and 10 ppb-unit increases in $PM_{2.5}$ and NO_x,

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respectively. The magnitudes of the RRs for each respiratory subtype related to biorefinery exposures found in this study (significant RRs ranged from 3.46 to 18.2) are substantially higher than the risks associated with exposure to any other sources of ambient pollutants, such as from cement plants (OR: 1.68, 95% CI: 0.98, 2.90), industrial facilities (OR: 2.24, 95% CI: 1.27, 3.95), and coal mining sites (OR: 1.03, 95% CI: 0.8, 1.2).[31,36,73]

4.4. Association Differences by Biorefinery Types and Exposure Disparities. This study found that the elevated emergency department visit rates for respiratory diseases significantly associated with residential proximity to all three types of biorefineries: corn, wood, and soybean biorefineries. This finding was consistent across two exposure assessment measures. The health risks appear to be higher with exposure to corn and soybean biorefineries compared to that of wood biorefinery facilities. We also found that the average $PM_{2.5}$ and NO_2 emission rates (g/s) from corn and soybean biorefineries were 1.5−3 times higher than the average $PM_{2.5}$ and NO_2 emission rates from wood biorefineries, which may explain the higher health risks among the residents living proximity to corn and soybean biorefinery sites. The higher emission rates from corn and soybean biorefinery facilities are likely due to the multiple processes associated with converting solid feedstocks to liquid biofuels.[4,74,75] Unfortunately, there is no literature available to compare the health risks among the three biorefinery types. For comparing other sources emitting pollutants, a study conducted by Hill et al.[5] found that producing corn ethanol resulted in emitting higher $PM_{2.5}$ concentrations (average $PM_{2.5}$: 1.32−4.70 $\mu g/m^3$) vs producing cellulosic ethanol (average $PM_{2.5}$: 1.00−1.06 $\mu g/m^3$) or gasoline (average $PM_{2.5}$: 0.55 $\mu g/m^3$).[5] Their study showed that the associated health costs were higher for corn ethanol production ($270−610 million) vs cellulosic ethanol ($102−176 million) or gasoline ($223 million). Moreover, Sengupta et al.[6] found that the health impacts linked to exposure to pollutants from ethanol production were 4−10 times higher than those associated with criteria air pollutants from gasoline production. Additionally, the discrepancies observed in the associations by biorefinery types based on different exposure measurements (i.e., higher among residents near soybean biorefineries based on residential proximity vs higher for corn biorefineries based on modeled pollutants) are likely due to the differences in the biological responses to the specific modeled air pollutants in the latter, compared to the mere effects of living nearby biorefinery facilities of the former, where neighborhood factors may play a greater role in explaining the higher risks.

We also found substantial racial and socioeconomic disparities among all study participants when compared to those of the entire NYS. The median income among the study population in biorefinery sites was 2.7 times lower than that in NYS (median income in NYS: $65,323). Additionally, the percentage of African-Americans in biorefinery sites was 3.4 times higher (54.1%) compared to 15.9% statewide, far exceeding the state's average percentage of African-Americans. Corn and soybean biorefineries were also located in highly populated counties of 1 million residents or more, with a high percentage (9.3−26.2%) of uninsured population.[76] Therefore, this study observed that biorefineries were located in areas where disproportionate percentages of African-Americans and households of lower income resided, a relationship similarly found in previous studies,[77−80] and a point worth further exploration in future research to mitigate potential environmental health disparities that may result from this. Additionally, emerging research shows that government-sponsored historical discriminatory housing policies set in place in the 1930s, namely, "redlining", where some of the biorefineries in this study were located, are significant drivers of modern health inequities. Such historical context, which lies beyond the scope of this paper, may provide additional explanation for the underlying cause of health inequities observed in the present study.[81,82]

4.5. Seasonal Difference in the Biorefineries-Health Associations. We found statistically significant and positive associations between residential exposure to biorefinery facilities and lower respiratory ED visits in all four seasons. Specifically, we observed higher biorefinery-respiratory health associations during the spring and winter compared to those during fall and summer (with the lowest risk). Temperature inversions resulting in air pollutants stagnating in the lower boundary layer during cold temperatures may explain the higher air pollution concentrations during cold seasons.[83−85] Additionally, a decrease in atmospheric temperatures lowers photochemical decomposition rates of air pollutants (gas phase-oxidation/photochemistry), thereby increasing air pollution concentration levels during cold seasons (spring−winter).[86] Furthermore, seasonal variation in air pollutants, i.e., higher average modeled $PM_{2.5}$, SO_2, and NO_2 levels during cold seasons (spring to winter) compared to those during summer seasons reported in another study,[87] is consistent with our finding.

In terms of possible biological mechanisms, respiratory symptoms observed during the cold seasons potentially resulted from (1) higher attachment of influenza viruses to particulate matter affecting the overall respiratory system,[88] particularly affecting children during the school year,[89] and those with compromised immune system due to higher generation of oxidative stress and enhanced attachment of influenza viruses to nasal and bronchial epithelial cells as shown in animal-based studies;[90−92] (2) cold outdoor air triggering bronchoconstriction particularly among people with pre-existing asthma symptoms;[93] and (3) tree and grass pollen triggering asthma during the spring season.[94]

4.6. Strengths and Limitations. To the best of our knowledge, this is the first epidemiological study assessing potential relationships between residential proximity to biorefineries or biorefinery-related air pollutants and respiratory morbidity. This study was based on NY state's legislatively mandated hospital data, which is more accurate than self-reported data due to the cases being reported by physicians' diagnosis. Additionally, this study included a large sample size (N = >500 000 respiratory cases), increasing the statistical power of this analysis. Unlike past studies, this study used two proxies of exposure measurements, i.e., residential proximity to biorefineries and AERMOD-modeled estimates of biorefinery-emitted air pollutants to validate the findings. Multiple air pollutant levels ($PM_{2.5}$, SO_2, and NO_2) based on an air dispersion model, with the capability of capturing location-, time- and source-specific exposures at finer spatial resolutions (1 km × 1 km), were linked to individual cases of respiratory morbidity reduced exposure misclassification in a cross-sectional study. Another strength of this study is the use of AERMOD to compare and validate the findings from our residential proximity models. While the residential proximity in the cross-sectional study is commonly used for hypothesis

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generating, AERMOD modeling is capable of quantifying dispersion of individual air pollutants from biorefineries at daily scale, which minimizes the temporality limitations associated with a cross-sectional study design. Finally, a major strength was that we examined multiple biorefinery sites (corn, wood, and soybean) to identify specific sources of exposure and distances of threshold for potential intervention.

Notwithstanding, we recognize that there are also some limitations to this study. First, since respiratory cases were based on ED hospital data only, this potentially caught the severe cases only rather than mild cases, which likely underestimate the total impact of biorefinery on respiratory health. On the other hand, hospital ED data are more objective and valid than self-reported symptoms from questionnaires, which helped us to minimize the reporting biases that limited many prior studies. Moreover, selection bias might have increased due to the specific geographical locations of the study population. Housing costs near biorefinery industrial areas tend to be lower, which potentially increased the number of nearby residents of lower socioeconomic status (SES), a segment of population that have been found to have higher respiratory ED visits, especially asthma, compared to those with high SES.[78] This potential selection bias might distort the associations we examined. To address this issue, we matched residents in biorefinery areas with those in nonbiorefinery areas based on similar median income, percentage of African-Americans, and age distribution in the study design to ensure that the SES and racial composition are comparable between the biorefinery and control areas. In addition, we also controlled for residual confounders such as individual levels of age, race, and sex, county-level smoking rate, temperature, relative humidity, and local background air levels (e.g., auto vehicles, industrial facilities, and other sources) in the stage of statistical analyses.

We also recognize that unmeasured confounders such as indoor exposures (e.g., indoor chemicals, pets) and activity pattern may have introduced confounding bias. To address this concern, we have controlled for many potential confounders including individual levels of age, sex, and race and community-level smoking rate, temperature, relative humidity, and air pollution levels in the statistical analysis in addition to the matching of sites by income and race described above. In addition, some industrial facilities located in some of the study areas potentially introduce confounding effects. To address this issue, the background level of air pollution sources from transportation, industrial facilities or agriculture, the environmental factors (e.g., elevation, land use), and weather factors (e.g., temperature, precipitation, wind speed) have been automatically controlled through the AERMOD. Finally, due to the nature of the ecological and cross-sectional design of the study, the results might be prone to ecological fallacy and present difficulties for determining the temporality between cause and outcome. However, the cross-sectional study design provided a valuable baseline knowledge to generate a hypothesis to be tested in future studies with a more robust epidemiological study design. More importantly, given that AERMOD modeling factored in temporality into the study design, it would draw more robust conclusions.

In conclusion, this study found that people living within 10 km of a biorefinery facility had an increased risk of visiting ED for lower respiratory diseases compared to those living in areas where no biorefineries were located. These statistically significant increases in health risks were found to be consistently associated with all three biorefinery subtypes (higher in corn and soybean biorefineries), in all seasons (higher in spring and winter), by all three pollutants (highest for NO_2), and all subtypes of the respiratory ED visits (highest for emphysema). Our findings warrant future investigation in a longitudinal study.

■ ASSOCIATED CONTENT

Supporting Information

The Supporting Information is available free of charge at https://pubs.acs.org/doi/10.1021/acs.est.1c00698.

Data sources and parameters for running AERMOD air dispersion modeling; tables including statistical distributions of AERMOD-modeled air pollutants for 15 biorefinery facilities in New York State (NYS), 2011−2015; demographic and neighborhood characteristics of the study sites; and mean smoking prevalence in the study counties in NYS (PDF)

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Notes

The authors declare no competing financial interest.

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Health Impacts of Biomass Energy Plants on Nearby Populations

RCEA Board Meeting: September 28, 2023

Presenter: Candy Stockton, MD, FASAM,
Health Officer, Humboldt County

Main Types of Biomass and Pollution

- **There are two ways for biomass to become an energy source:**

Direct Combustion

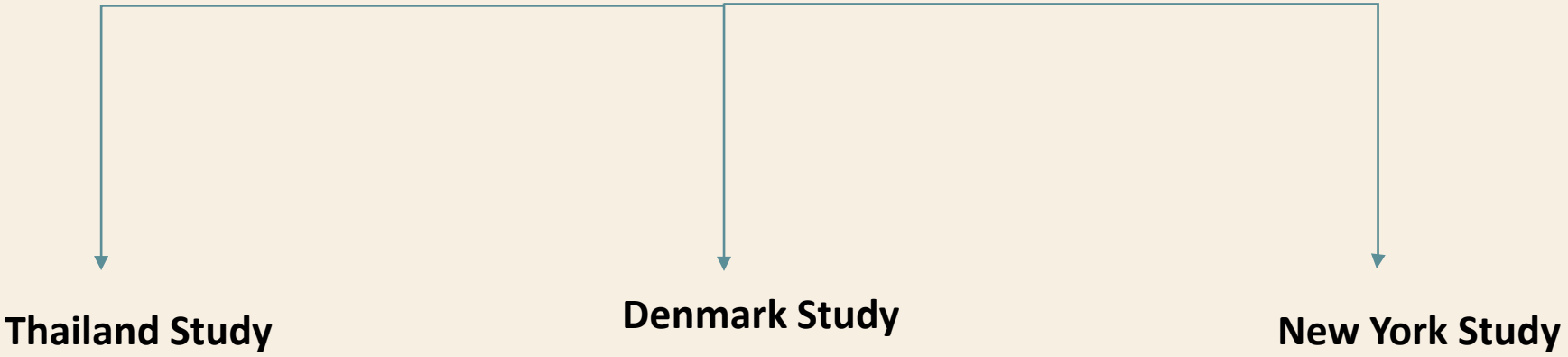
Fermentation

- **Both plants types emit pollutions :**

Chemical and biological pollution: Particulates, gases, and volatile organic compounds (VOCs).

Literature review

- Studies of health symptoms as outcomes



- Studies of cancer/death as an outcome

None

Literature review

New York Study

- **Similar** population sample.
- **First** study in the US and recent
- **Limited reporting bias** by including confirmed cases in hospitals.
- Provides **a baseline knowledge** of exposure-outcome relationship.
- Their contaminant level are close to Humboldt levels
- To understand uncontrolled confounders such as indoor exposure to chemicals and pets' variation, they adjusted for variables like age, race, sex, county-smoking levels, temperature differences, and humidity.

Literature review – New York

- **The New York Study found that living within 10Km of a plant emitting PM2.5, NO2, and SO2 is associated with a higher risk of lower respiratory diseases.**
- **The Study found a significant association between living within 10KM of a plant and emphysema, chronic airway obstruction, chronic bronchitis, and asthma as measured by ED visits for respiratory symptoms.**
- **The study also found an association between living within 5-10KM of a plant and chronic bronchitis, chronic airway obstruction, and asthma.**
- **The reference group (>10Km) did not show any significant association with lower respiratory diseases.**

Data

- Steps to estimate the risk in our county:

A. **Population Number** (Based on Census Reporter):

Area	Population
Scotia, CA	470
Rio Dell, CA	3,385
Total	**3,855**

B. **Pollutant Concentration** *in Scotia and Rio Dell* based on air-quality reports, compared to the NYS study contaminant concentrations:

	$PM_{2.5}$	SO_2	NO_2
New York State	**7 µg/m³**	**0.531 ppb**	**9.4 ppb**
Scotia, CA	**6 µg/m³**	**0.529 ppb**	**4.7 ppb**
Rio Dell, CA	**6 µg/m³**	**0.384 ppb**	**3.17 ppb**

- The contaminant levels were obtained from AccuWeather.com from Aug 17th to Sep 6th. (AccuWeather.com, 2023).
- The population numbers was obtained from Census Reporter on Sep 6th.

Data

- In the study, 3086 individuals **(12.3%)** developed health symptoms as an outcome from the combined exposure to all of the three contaminants.

- The expected risk is estimated to be approximately 474 individuals (12.3%) in our population (3,855) over **5 years** period (An average of ~**94** incident per year).

- Then we can assume, in the absence of confounding, **that ~7-8 cases are likely to visit ED room for respiratory illness or symptom per month.**

Conclusion

- With small populations, normal fluctuations in values can lead to a lot of year to year variation.
- The output reflects the number of estimated ED visits rather than the actual number of cases of illness, so it may underrepresent the effect.
- The key inference here is that individuals living in close proximity to the biomass area are more likely to experience a significant health impact. The economic status of those living near the plant is a confounder factor that we can not completely control for, and it may also have an impact on co-morbidity factors.
- Smaller effects over time are difficult to tease out due to a number of confounding factors related to socioeconomic status.

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REDWOOD COAST Energy Authority

STAFF REPORT
Agenda Item # 6.2

GENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Matthew Marshall, Executive Director
SUBJECT:	RePower Humboldt Energy Strategic Plan Update

BACKGROUND

Following approximately nine months of analysis and gathering public input, the RCEA Board adopted an update to the RePower Humboldt Strategic Plan, RCEA's comprehensive action plan for energy in December 2019. The plan establishes goals and strategies to guide RCEA's work over the 2020-2030 period, and is available online at:
https://redwoodenergy.org/wp-content/uploads/2020/06/RePower-2019-Update-FINAL-.pdf

SUMMARY

Staff intends to provide RePower Humboldt Plan updates every six months to keep the Board informed on implementation progress. At the meeting RCEA department directors will provide a presentation on the current status of plan implementation and related activities. This will include updates on the four focus areas of the plan:

1. Regional Planning and Coordination
2. Integrated Demand Side Management
3. Low-Carbon Transportation
4. Energy Generation and Utility Services.

STAFF RECOMMENDATION

N/A – Information only.

ATTACHMENTS

Presentation slides will be shared at this meeting.

RePower Humboldt
Strategic Plan Introduction
September 2023

RCEA's RePower Humboldt Strategic Plan

Updated December 2019 – 4 focus areas:

Regional Planning & Coordination

Integrated Demand Side Management

Low-Carbon Transportation

Energy Generation & Utility Services

Regional Planning & Coordination

Main goals:

- Achieve net-zero greenhouse gas emissions county-wide by 2030
- Establish Humboldt County as energy secure community by 2030: local capabilities/infrastructure to address energy emergencies and disruptions
- Build the clean energy sector as a cornerstone of the local economy: innovation, R&D, business development

Regional Planning & Coordination

Current activities:

- Continuing work with County and Cities on regional climate action plan
- Pursuing grant funding for energy resilience planning and infrastructure
- With CORE Hub, engaging with offshore wind developers on community benefits strategies
- First round of Humboldt's Electric Future planning process

Integrated Demand Side Management

AKA:

Customer Energy Solutions

Main goals:

- Support the wide-spread installation of customer solar energy systems to reach 30MW of customer solar installed by 2025 and 50MW by 2030.
- Provide energy efficiency and conservation services to every household and business in the county by 2030.
- Implement programs to reduce natural gas use by 20% by 2030 with a trajectory for 90% reduction by 2050.
- Deploy microgrids and renewable back-up power systems to provide energy resiliency and emergency energy supply at all critical facilities by 2030.

Integrated Demand Side Management

AKA:

Customer Energy Solutions

Current activities

- In June wrapped up $1.9M CPUC-funded efficiency program; RCEA Board approved funding to continue programs in July-Dec 2023 gap.
- Local Government Partnership with PG&E to provide customers with technical assistance, assessments, and program referrals; help public agencies secure and manage outside funding for energy projects. $1M, 2.5-year continuation began in July.
- Rural Regional Energy Network funding approved by the CPUC.

Integrated Demand Side Management

AKA:

Customer Energy Solutions

Rural "Regional Energy Network" (Rural REN)

- Approved for launch in Jan 2024
- $84.2 million for 2024-27
- Preliminary authorization of $93.2 million for 2028-31

Energy Generation & Utility Services

Main goals:

- By 2025, 100% of RCEA power mix will be from clean and/or renewable sources
- By 2030 Humboldt will be a net exporter of renewable electricity
- By 2030, power mix will be 100% *local* net-zero-carbon-emission renewables
- Humboldt County able to respond to electric disruptions through grid modernization, local resources, microgrids

Energy Generation & Utility Services

Current activities:

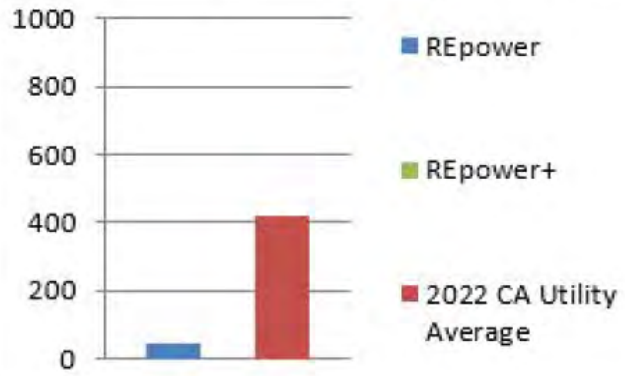
- New solicitation for additional projects open
- Solar and storage projects in the pipeline progressing, but suffering from supply-chain constraints -- 100 MW Sandrini Solar Project delays particularly impactful to financial outlook

2022 Power Content Label post card on its way to customers soon

2022 POWER CONTENT LABEL
Redwood Coast Energy Authority
Redwoodenergy.org

Greenhouse Gas Emissions Intensity (lbs CO_2e/MWh)

REpower	REpower+	2022 CA Utility Average
49	0	422



Energy Resources	REpower	REpower+	2022 CA Power Mix
Eligible Renewable[1]	**50.0%**	**100.0%**	**35.8%**
Biomass & Biowaste	20.4%	0.0%	2.1%
Geothermal	0.0%	0.0%	4.7%
Eligible Hydroelectric	1.0%	33.3%	1.1%
Solar	21.5%	33.3%	17.0%
Wind	7.1%	33.3%	10.8%
Coal	**0.0%**	**0.0%**	**2.1%**
Large Hydroelectric	**45.0%**	**0.0%**	**9.2%**
Natural Gas	**0.0%**	**0.0%**	**36.4%**
Nuclear	**0.0%**	**0.0%**	**9.2%**
Other	**0.0%**	**0.0%**	**0.1%**
Unspecified Power[2]	**5.0%**	**0.0%**	**7.1%**
TOTAL	**100.0%**	**100.0%**	**100.0%**
Percentage of Retail Sales Covered by Retired Unbundled RECs[3]**:**	**0%**	**0%**	

[1]The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.

[2]Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

[3]Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.

For specific information about this electricity portfolio, contact:	**Redwood Coast Energy Authority (707) 279-1700**
For general information about the Power Content Label, visit:	https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program

Sandrini 100MW Solar Project status photos:

Low-Carbon Transportation

Main goals:

- Reach 6,000+ EVs in Humboldt by 2025
  Reach 22,000 EVs by 2030
- Develop EV charging infrastructure to support EV targets
- With other public entities, reduce vehicles miles traveled at least 25% by 2030
- Reduce transportation greenhouse gas emissions by over 65% by 2030

Low-Carbon Transportation

Current activities:

- Wrapping up $200k CA Energy Commission (CEC) grant to develop blueprint for medium-duty/heavy-duty fleet conversions and fueling infrastructure
- $700k CEC grant to install EV charging at rural community service centers
- Launching soon: new round of e-bike rebates

RCEA E-Bike Voucher Program 2023

Image Source: CALBIKE

CARB E-Bike Voucher Program

PROGRAM DETAILS:

- Point-of-sale Voucher
- Brick-and-mortar bike shops only
- Apply through online portal
- Must have operable pedals
- No retro-active vouchers
- Must own E-Bike for 1-year

Image Source: Momentum-biking.com

CARB E-Bike Voucher Program

PROGRAM DETAILS:

- $1,000 for income-eligible CA residents
- Eligibility = 300% Federal Poverty Level (FPL)
- Additional $250 for:
  - Annual household income at 225% FPL
  - Reside in Low-Income Community (LIC)


Image Source: Marinbikes.com

Updated RCEA 2023 E-Bike Voucher

- Q3 target launch date
- 75% of funds reserved for income-qualified residents
  - Income eligibility:
    - Receipt of CA E-Bike voucher
    - CARE/FERA enrollment
- Valid at brick-and-mortar bike shops only
- Eligible E-Bikes:
  - Non-sport, cargo, e-tricycles, and adaptive
  - Must have operable pedals
- $4,000 reserved for Adaptive E-Bikes (4 vouchers)


Image Source: Bicycling.com

Updated RCEA 2023 E-Bike Voucher


Image Source: Discerningcyclist.com

Voucher Levels:

- $150 voucher for any CCE customer
- $350 voucher for cargo E-Bikes
- $500 voucher for income-qualified residents
- $1,000 voucher for Adaptive E-Bikes

AGREEMENT WITH PARTICIPATING BIKE SHOPS

- Provide training on E-Bike use & battery charging
- Maintain e-bikes sold under voucher program
- Free 6-month or 100mile tune-up
- 1-year warranty
- UL listed batteries, chargers, motors
- Provide RCEA with voucher & itemized receipt for reimbursement

Image Source: Liv-cycling.com

Image Source: CALBIKE

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REDWOOD COAST EnergyAuthority

STAFF REPORT
Agenda Item # 8.1

AGENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Jocelyn Gwynn, Senior Power Resources Manager Richard Engel, Director of Power Resources
SUBJECT:	Foster Clean Power A Power Purchase Agreement Amendment 1

BACKGROUND

At its September 2022 meeting, the Board approved a 20-year power purchase agreement (PPA) for Foster Clean Power A, a local project comprised of 3 MW solar plus 1.25 MW battery storage that is being developed by Renewable America (RNA) on land adjacent to Foster Avenue in the Arcata area. The project was procured as part of RCEA's 2021 Request for Offers (RFO) for Long-term Reliability Resources in response to the California Public Utilities Commission's Mid-Term Reliability (MTR) Decision 21-06-035 to address reliability needs of the state's grid in the 2023-2026 term.

Since execution of the PPA, the developer has been reporting to staff about challenges commencing construction of the project and increases in their costs to finance and build the project. In July, RNA formally requested a price increase for the energy storage rate in the PPA, saying it is necessary to get the project financed. Staff are bringing a proposed amendment of the PPA to the Board to mitigate these material impacts to the local project in such a way that helps ensure its success while still returning value for RCEA's power portfolio.

SUMMARY

The proposed Amendment 1 to the Foster Clean Power A PPA extends the guaranteed construction start and commercial operation dates by six months. This is to account for delay in the project's construction due to high soil moisture this past spring and summer after an unseasonably wet winter. The project is now on track to begin construction by November 1, 2023, and to commence commercial operation by June 30, 2024.

The Foster A project was originally contracted with the expectation that it would commence commercial operation by December of this year and would be awarded a resource adequacy (RA) deliverability allocation by Q2 2024, enabling RCEA to count the project toward its June 2024 MTR compliance milestone, as well as being able to count the project's capacity toward RCEA's ongoing monthly RA compliance requirements. However, due to the force majeure delay in construction, RCEA now expects to count the project toward its June 2025 MTR compliance milestone. Despite the schedule change, the project still has compliance value to RCEA, on top of the value as a local community-scale solar project.

Recognizing that RA deliverability for the project is not guaranteed, the existing contract has different energy storage prices for the scenario where RA is provided and the lower-value scenario where it is not. The proposed amendment increases the contract price for the battery storage component in the scenario where RA is allocated by 38%. RNA and RCEA staff have worked together to mitigate this price increase as much as possible so that the project can be financed and built and RCEA still expects to gain some value from the products the project will provide over the life of the contract, relative to purchasing them on a short-term basis.

Under the terms of the existing contract, if the project does not secure RA deliverability by 2025, then the contract price will be reduced to reflect the reduction in value to RCEA. This adjusted energy storage price has also been increased in the proposed Amendment 1 by 120% relative to the original PPA's no-RA deliverability scenario. Again, the developer states the price increase is necessary to finance the project.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

By continuing to build RCEA's portfolio of long-term, local renewable and storage resources, this project contributes to many Strategic Plan goals:

- *4.1.1 Maximize the Use of Local Renewable Energy to the Extent Technically and Economically Feasible and Prudent.*
- *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.*
- *4.1.5 Ensure Diversity in Local Sources*
- *4.1.7.2 Develop Distributed Generation.*
- *4.1.8.1 Support Utility Scale Solar Energy Development.*
- *4.1.8.2 Procure Local Solar Energy.*

EQUITY IMPACTS

Renewable America is not listed in the CPUC's Supplier Diversity Clearinghouse as a diverse business enterprise. They are working with GRID Alternatives on workforce development opportunities through this and their other projects, including potential community benefit or project labor agreements.

FINANCIAL IMPACT

The 38% increase in the energy storage rate and 120% increase in the adjusted storage rate (if the project does not get RA deliverability) result in higher cost of the Foster Clean Power A project than originally transacted for. However, given the increase in forecasted value of the products the project will deliver (energy, renewable certificates, resource adequacy and ancillary services) since PPA execution, staff expect to see a positive return on the project relative to procuring equivalent products on the spot market, even with the price increase. These costs and revenues are accounted for in RCEA's financial model and will be incorporated into the budget starting in fiscal year 2024-2025.

STAFF RECOMMENDATION

Approve Amendment 1 to the Foster Clean Power A LLC Power Purchase Agreement and authorize the Executive Director to execute all applicable documents.

ATTACHMENTS

Amendment 1 to Foster Clean Power A LLC Power Purchase Agreement

FIRST AMENDMENT TO
RENEWABLE PLUS STORAGE POWER PURCHASE AGREEMENT

This is an amendment ("Amendment") to that certain Power Purchase Agreement made by and between the Redwood Coast Energy Authority, a California joint powers authority ("Buyer") and Foster Clean Power A LLC, a Delaware limited liability company ("Seller"), each individually a "Party" and collectively, the "Parties", effective on October 7, 2022 ("PPA"). This Amendment is effective on _____, 2023.

RECITALS

WHEREAS, the Parties seek to amend the Storage Rate and Milestone dates in the PPA.

WHEREAS, the Parties seek to incorporate grid charging capability into the PPA.

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. **Guaranteed Construction Start Date**. The Guaranteed Construction Start Date is hereby amended to November 1, 2023.

2. **Guaranteed Commercial Operation Date**. The Guaranteed Commercial Operation Date is hereby amended to June 30, 2024.

3. **Contract Price**. The Storage Rate is hereby amended to:

Contract Year	Storage Rate
1- 20	$[redacted] per kW-month, subject to modification pursuant to Section 3.8(c)

Section 3.8 subsection (c) is hereby replaced with the following:

(c) "If the Facility has not achieved FCDS by the RA Guarantee Date, then the provisions of Section 3.8(a) and (b) shall be suspended and, as an alternative basis of liquidated damages, the Storage Rate shall be reduced to [redacted] per kilowatt-month ($[redacted]/kW-month) for all subsequent months. If the Facility subsequently achieves FCDS, the Storage Rate shall be increased to [redacted] per kilowatt-month ($[redacted]/kW-month) and the requirements of the Sections 3.8 (a) and (b) shall apply to all such months occurring after the Facility achieves FCDS."

4. **Grid Charging Capability**.

   a. **Contract Definitions**. Section 1.1, Contract Definitions, is hereby revised to delete the definitions for "Buyer Bid Curtailment" and "Facility Energy" and replace those definitions with the following:

   "**Buyer Bid Curtailment**" means the occurrence of all of the following:

(a) the CAISO provides notice, including through ADS, to a Party or the Scheduling Coordinator for the Facility, requiring the Party to deliver less Facility Energy or Grid Energy from the Facility than the full amount of energy forecasted in accordance with Section 4.3 to be produced from the Facility for a period of time; and

(b) for the same time period as referenced in (a), the notice referenced in (a) results from the manner in which Buyer or the SC schedules or bids the Facility, Facility Energy, Grid Energy, or Ancillary Services, including where the Buyer or the SC for the Facility:

(i) did not submit a Self-Schedule for the MW subject to the reduction; or

(ii) submitted an Energy Supply Bid and the CAISO notice referenced in (a) is solely a result of CAISO implementing the Energy Supply Bid; or

(iii) submitted a Self-Schedule for less than the full amount of Facility Energy and Grid Energy forecasted to be generated by or delivered from the Facility.

"**Facility Energy**" means the sum of Energy Generation and Discharging Energy, minus the amount of any Grid Energy, during any Settlement Interval or Settlement Period, net of Electrical Losses and Station Use, as measured by the Facility Meter, which Facility Meter will be adjusted in accordance with CAISO meter requirements and Prudent Operating Practices to account for Electrical Losses and Station Use.

b. **Delivery**. Section 4.1, Delivery, is hereby replaced in its entirety with the following:

4.1 Delivery.

(a) Energy. Subject to the provisions of this Agreement, commencing on the Commercial Operation Date through the end of the Contract Term, Seller shall supply and deliver the Product to Buyer at the Delivery Point, and Buyer shall take delivery of the Product at the Delivery Point in accordance with the terms of this Agreement. Seller will be responsible for paying or satisfying when due any costs or charges imposed in connection with the delivery of Facility Energy to the Delivery Point, including without limitation, Station Use, Electrical Losses, any costs associated with delivering the Charging Energy from the Generating Facility to the Storage Facility, and any operation and maintenance charges imposed by the Transmission Provider directly relating to the Facility's operations. Buyer shall be responsible for all costs, charges, and penalties, if any, imposed in connection with the delivery of Facility Energy at and after the Delivery Point, including without limitation transmission costs and transmission line losses and imbalance charges. Buyer shall be responsible for all costs, charges, and penalties, if any, imposed in connection with the delivery of Grid Energy to the Storage Facility. The Facility Energy will be scheduled to the CAISO by Buyer (or Buyer's designated Scheduling Coordinator) in accordance with Exhibit D.

(b) Green Attributes. All Green Attributes associated with the Test Energy and the Facility during the Delivery Term are exclusively dedicated to and vested in Buyer. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Facility, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Facility.

c. **Charging Energy Management**. Section 4.5, Charging Energy Management, is hereby replaced in its entirety with the following:

4.5 Charging Energy Management.

(a) Upon receipt of a valid Charging Notice, Seller shall take any and all action necessary to deliver the Charging Energy or Grid Energy to the Storage Facility in order to deliver the Storage Product in accordance with the terms of this Agreement, including maintenance, repair or replacement of equipment in Seller's possession or control used to deliver the Charging Energy from the Generating Facility or Grid Energy to the Storage Facility.

(b) Buyer will have the right to charge the Storage Facility seven (7) days per week and twenty-four (24) hours per day (including holidays), by providing Charging Notices to Seller electronically, provided that Buyer's right to issue Charging Notices is subject to the requirements and limitations set forth in this Agreement, including the Operating Restrictions and the provisions of Section 4.5(a). Each Charging Notice issued in accordance with this Agreement will be effective unless and until Buyer modifies such Charging Notice by providing Seller with an updated Charging Notice. Buyer shall have the right to charge the Storage Facility with Grid Energy rather than Energy from the Generating Facility.

(c) Seller shall not charge the Storage Facility during the Term other than pursuant to a valid Charging Notice, or in connection with a Storage Capacity Test, or pursuant to a notice from CAISO, the PTO, Transmission Provider, or any other Governmental Authority, or as reasonably determined to be necessary for maintenance or repairs consistent with Prudent Operating Practice. If, during the Contract Term, Seller charges the Storage Facility in violation of the first sentence of this Section 4.5(c), then (x) Seller shall be responsible for all energy costs associated with such charging of the Storage Facility, (y) Buyer shall not be required to pay for the charging of such energy (i.e., Charging Energy), and (z) Buyer shall be entitled to discharge such energy and entitled to all of the benefits (including Storage Product) associated with such discharge.

(d) Buyer will have the right to discharge the Storage Facility seven (7) days per week and twenty-four (24) hours per day (including holidays), by providing Discharging Notices to Seller electronically, and subject to the requirements and limitations set forth in this Agreement, including the Operating Procedures. Each Discharging Notice issued in accordance with this Agreement will be effective unless and until Buyer modifies such Discharging Notice by providing Seller with an updated Discharging Notice.

(e) Notwithstanding anything in this Agreement to the contrary, during any Settlement Interval, Curtailment Orders, Buyer Curtailment Orders, and Buyer Bid Curtailments applicable to such Settlement Interval shall have priority over any Charging Notices and Discharging Notices applicable to such Settlement Interval, and Seller shall have no liability for violation of this Section 4.5 or any Charging Notice or Discharging Notice if and to the extent such violation is caused by Seller's compliance with any Curtailment Order, Buyer Curtailment Order, Buyer Bid Curtailment or other instruction or direction from a Governmental Authority or the PTO or the Transmission Provider. Buyer shall have the right, but not the obligation, to provide Seller with updated Charging Notices and Discharging Notices during any Buyer Curtailment Order, Buyer Bid Curtailment or Curtailment Order consistent with the Operating Procedures.

d. **Grid Charging Transition.** Section 4.11, Grid Charging Transition, is hereby deleted in its entirety.

e. **Invoicing**. Section 8.1, Invoicing, is hereby replaced in its entirety with the following:

8.1 Invoicing. Seller shall make good faith efforts to deliver an invoice to Buyer for Product no sooner than fifteen (15) Business Days after the end of the prior monthly billing period. Each invoice shall reflect (a) records of metered data, including CAISO metering and transaction data sufficient to document and verify the amount of Product delivered by the Facility for any Settlement Period during the preceding month, including the amount of Energy Generation produced by the Generating Facility as read by the Facility Meter, the amount of Charging Energy delivered to the Storage Facility, the amount of Grid Energy delivered to the Storage Facility, and the amount of Discharging Energy delivered from the Storage Facility, in each case, as read by the Storage Facility Meter, the amount of Replacement RA and Replacement Product delivered to Buyer (if any), the calculation of Adjusted Facility Energy, Deemed Delivered Energy and Adjusted Energy Production, the LMP prices at the Delivery Point for each Settlement Period, and the Contract Price applicable to such Product in accordance with Exhibit C; (b) access to any records, including invoices or settlement data from the CAISO, necessary to verify the accuracy of any amount; and (c) be in a format reasonably specified by Buyer, covering the services provided in the preceding month determined in accordance with the applicable provisions of this Agreement. Buyer shall, and shall cause its Scheduling Coordinator to, provide Seller with all reasonable access (including, in real time, to the maximum extent reasonably possible) to any records, including invoices or settlement data from the CAISO, forecast data and other information, all as may be necessary from time to time for Seller to prepare and verify the accuracy of all invoices.

f. **Grid Charging Authorization.** Exhibit T, GRID CHARGING AUTHORIZATION, is hereby deleted in its entirety.

[*Signature page follows*]

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be duly executed as of the Effective Date.

Seller:	**Buyer:**
FOSTER CLEAN POWER A LLC, a Delaware limited liability company	**REDWOOD COAST ENERGY AUTHORITY**, a California joint powers authority
By: _____	By: _____
Name:_____	Name:_____
Title:_____	Title:_____

REDWOOD COAST EnergyAuthority

STAFF REPORT
Agenda Item # 8.2

AGENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Dana Boudreau, Director of Infrastructure Planning and Operations Mike Avcollie, Manager, Infrastructure Projects
SUBJECT:	Rural Electric Vehicle Charging CEC Grant Design Award

BACKGROUND

On December 14, 2021, the California Energy Commission (CEC) released a Grant Solicitation entitled "Rural Electric Vehicle (REV) Charging" under the Clean Transportation Program. This grant solicitation was an offer to demonstrate replicable and scalable business and technology models for deployment of public electric vehicle (EV) charging infrastructure capable of maximizing access and EV travel for rural residents.

In March 2022, RCEA submitted a grant application titled "North Coast Plug-In Electric Vehicle Charging Network Phase 2," requesting $700,000. The grant requires a minimum match requirement of 20 percent, or $175,000 for this submission, resulting in a total project budget of $875,000. In September 2022, RCEA received a Notice of Proposed Award, and the contract was fully executed in March 2023. Staff are now bringing the engineering design award to the Board for approval.

SUMMARY

The goal of this project is to install ten Level 2 electric vehicle charging sites at strategic community hub locations around Humboldt County. The project started in April 2023, with a deadline of March 2028.

In August 2023 Staff issued a competitive solicitation for this engineering design work. RCEA received proposals from two firms and both proposals were deemed responsive to the request in its entirety. Staff evaluated the proposals according to the weighted criteria set forth in the RFP, and the proposals received averaged rankings of 67% and 85%.

Staff is recommending entering into an agreement with Whitchurch Engineering, Inc. as a well-qualified firm with direct experience in work similar in scope and scale, the highest selection criteria ranking, and the lowest cost proposal of the two firms.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

By expanding our existing EV charging network and enabling future resiliency work at locations across the county, this project contributes to these Strategic Plan goals:

- *2.1.5 Integrate Distributed Energy Resources.*
- *3.2.2 Promote Advanced Fuels.*
- *3.2.3 Support Electric Vehicle Adoption.*
- *3.3.1 Develop Transportation Electrification Infrastructure.*
- *3.3.4 Promote Vehicle-to-Grid Connection.*

EQUITY IMPACTS

The grant solicitation required that at least 50% of project costs be spent on low-income or disadvantaged communities or both. RCEA's "North Coast Plug-In Electric Vehicle Charging Network Phase 2" project will support switching from gasoline vehicles to EVs and reduce criteria air pollutants and greenhouse gas (GHG) emissions in California. All project sites are within the AB 1550 Low-income Communities designated area, and an August 2022 California Energy Commission staff report "Localized Health Impacts Report" lists our project sites as meeting one or more Environmental Justice indicators for age, poverty, or unemployment.

FINANCIAL IMPACT

RCEA received a Notice of Proposed Award for the North Coast Plug-In Electric Vehicle Charging Network Phase 2 Project. The total project cost is $875,000 and includes $700,000 in CEC grant funds and $175,000 in RCEA matching funds. Project costs include electric vehicle charging equipment, vendor costs for site preparation and installation, and RCEA staff time for grant administration and planning.

Several factors emerged following the award of the grant, including award delays, inflation, labor cost increases, and supply chain issues. The design services will help inform projected costs and potential impact to the project scope and budget. Any modifications will be presented and addressed as part of Board approval for construction services.

The not-to-exceed value of the proposed design engineering contract will be $99,088.

The new charging stations will be capital assets owned and operated by RCEA and will generate revenue from the sale of electricity to EV drivers.

STAFF RECOMMENDATION

Authorize the Executive Director to execute all applicable documents for Professional Electrical Design And Engineering Services associated with the North Coast Plug-In Electric Vehicle Charging Network Phase 2 Project with Whitchurch Engineering, Inc for a not to exceed value of $99,088, subject to RCEA General Counsel review.

ATTACHMENTS

Request for Proposal (RFP) for Design and Engineering Services for the Electric Vehicle Charging Network Phase II Project

Whitchurch Engineering proposal and updated schedule

Request for Proposal (RFP)

for Design and Engineering Services for the Electric Vehicle Charging Network Phase II Project

RFP-23-501

Redwood Coast Energy Authority

www.RedwoodEnergy.org

Responses to this RFP due by 1:00pm PDT on
September 21st, 2023 via email to
procurement@redwoodenergy.org

NOTICE INVITING PROPOSALS FOR DESIGN AND ENGINEERING SERVICES FOR THE ELECTRIC VEHICLE CHARGING NETWORK PHASE II PROJECT

NOTICE IS HEREBY GIVEN that Redwood Coast Energy Authority (RCEA) is seeking proposals from qualified firms for Design and Engineering Services for the Electric Vehicle Charging Network Phase II Project.

Responses to this Request for Proposal (RFP) will be accepted in electronic format only, until September 21, 2023 at 1:00 p.m. Responses to this solicitation received after the stated deadline will not be accepted.

Proposals shall be delivered by electronic mail to procurement@redwoodenergy.org with a subject line: "RFP-23-501". Electronic copies shall be searchable PDF format and may be delivered as a zipped file or via VPN.

All responses must be completed as required, signed by an officer of the firm who is authorized to enter into a binding agreement with RCEA on behalf of the firm, and must be received at the place and by the time designated above.

All notifications, updates and addenda will be posted on RCEA's Contracting page at https://redwoodenergy.org/contracting/. Changes to this RFP, if any, will be issued by RCEA as separate addenda and posted to this page. Proposers shall be responsible for monitoring the site to obtain information regarding this solicitation. Failure to respond to required updates may result in a determination of a nonresponsive proposal.

It is the Proposer's sole responsibility to ensure that their proposal, inclusive of any or all addenda, is received by RCEA at the stated time in the required format. Any proposal received after the scheduled closing time for receipt of proposals will not be considered and will remain unopened.

Proposals must be submitted to RCEA as set forth in this Request for Proposal document. Unless otherwise specified, proposals submitted by any other method than that set forth herein will be disqualified.

TABLE OF CONTENTS

SECTION I – PROJECT INTRODUCTION AND OVERVIEW

Introduction

The Redwood Coast Energy Authority (RCEA) was formed in 2003 as a Joint Powers Authority (JPA), a local government agency of the State of California. RCEA is governed by an eleven-member Board of Directors comprised of representatives from each of its member agencies, including the Blue Lake Rancheria, County of Humboldt, the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell and Trinidad, the Humboldt Municipal Water District, and the Yurok Tribe.

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. In 2017, RCEA became a community choice aggregator (CCA) and currently serves 93% of eligible electricity customers within its jurisdiction.

RCEA currently owns, operates, and maintains a network of twenty-seven (27) publicly available electric vehicle charging stations (EVCS) offering fifty-two (52) Level-2 charging ports to communities across Humboldt County.

General Information

The Redwood Coast Energy Authority is soliciting proposals from qualified firms for Design and Engineering Services for the Electric Vehicle Charging Network Phase II Project. This EVCS network expansion project is funded by the California Energy Commission's (CEC's) Clean Transportation Program (CTP) based on the RCEA's response to the CEC's Grant Funding Opportunity (GFO) for Clean Transportation Program's Rural Electric Vehicle Charging. RCEA was awarded this grant funding in 2023 via the grant agreement titled Alternative and Renewable-Fuel Vehicle ARV-22-008 ("ARV-22-008 Grant").

The goal of the ARV-22-008 Grant is to increase rural charging access and build community resilience in rural areas in Humboldt County. This grant-funded project will expand RCEA's current network of EVCS by adding a total of thirty-two (32) Level-2 charging ports by installing sixteen (16) dual-port, Level-2 EVCS at ten (10) strategic community hub locations across Humboldt County.

Description of Work

The purpose of this RFP is to solicit proposals from qualified firms to provide civil and electrical design and engineering services for RCEA's grant-funded EVCS network expansion. The work will consist of project coordination, engineering and design, and the production of a final construction plan set that includes all civil and electrical designs, engineering, and specifications to be used in the during installation at each of the 10 installation sites detailed in Attachment 1: Site Details. Each site will require civil and electrical design and engineering services as described in the Scope of Work.

Proposal Evaluation Schedule

Table 1 identifies the estimated dates/time frame for receipt, evaluation, and award of the work specified in this RFP. Please note the following key dates, when preparing your response to this RFP.

Table 1 – Proposal Evaluation Schedule

Distribution of RFP	August 28, 2023
Deadline for Questions	4:00pm PDT, September 11, 2023
Responses to Written Questions Regarding RFP	September 13, 2023
Proposal Due Date	1:00pm PDT, September 21, 2023
Firm Interviews, as needed	Week of September 25, 2023
Contract Award	September 28, 2023

Evaluation and Selection Process

A committee will review, evaluate and rank each submittal to determine if it meets the RFP requirements. Failure to meet the requirements set forth in the RFP will be cause for eliminating the Proposer from further consideration.

The RCEA governing Board of Directors will award the contract based on the final rankings of the selection committee.

The committee may interview any or all Proposers. The evaluation criteria and weighting are as follows:

Evaluation Criteria	Weight of Score
Past performance and qualifications of the team members on design of EV charging station installations of the size and configuration specified in the Scope of Work.. Familiarity with and capacity to handle all aspects of the work.	25%
Ability to complete the project within the proposed time frame outlined in the Scope of Work.	20%
Technical approach and understanding, preparation of project specific plans and specifications for EV charging stations in accordance to State of California Requirements, Americans with Disabilities Act of 1990 Requirements, and PG&E Greenbook requirements.	10%
Knowledge and experience with local projects.	7.5%
Additions, Deletions and/or Exceptions taken to the Standard Agreement	7.5%
Cost and fees.	30%

SECTION II – PROPOSAL REQUIREMENTS

The proposal should respond to the requirements set forth herein. In addition, Proposers need to demonstrate their capabilities, background, expertise, etc. in order for RCEA to effectively evaluate the proposals, and award to the firm that provides the best value to RCEA based on the selection criteria in Section I. At a minimum, the information described below must be included in the proposal.

A. General Requirements

- An understanding of the project and approach to accomplish the work in a timely and acceptable manner.
- A detailed description of the services to be provided based on the firm's understanding of the project scope; include a list of anticipated drawings.
- A detailed work schedule for all work and time frame for items of work.
- A project organization and staffing chart.
- Identification of the individual who will have overall responsibility for the project and who must be a licensed Professional Engineer (Civil and/or Electrical) in the State of California.
- A resume of the key staff who will be working on this project, including specific experience on similar projects.
- List of Subcontractors (see Exhibit A). Include a full description of the subcontractor's experience and personnel in the Statement of Qualifications.
- Firm's Business Information (see Exhibit B).
- A not-to-exceed fee based on the services outlined in the Scope of Work.
- At the time of the opening of proposals each Proposer shall be presumed to have read and be thoroughly familiar with the RFP and proposal requirements (including all Addenda).

B. Executive Summary

- A brief summary of the firm's origin, background, and size of the company, an overall organizational chart, the overall capabilities of the organization, appropriate licenses and certifications, and proximity of company's resources to RCEA's offices and facilities.
- Name(s) of person(s) authorized to represent the firm, authorized to answer questions and bind the firm, including the person(s) title and contact information.
- A summary of the qualifications and licenses held by key staff assigned to the project and an affirmative statement that the firm and all assigned key professional staff are properly licensed to practice in California.
- A list of any professional relationships involving RCEA for the past five (5) years, together with a statement explaining why such relationships do not constitute a conflict of interest relative to performing the proposed work.

The Executive Summary shall be no more than 3 pages.

C. Statement of Qualifications

Qualifications and Experience (Firm and Personnel)

- A description of the firm's expertise related to services requested and a full discussion of the company's recent experience directly related to designing EV Charging Station installations.
- Resumes of key people that describe experience and qualifications, educational background, and skills.

The design professional responsible for and in charge of the project must be a licensed Professional Engineer (Civil and/or Electrical) in the State of California.

Availability

- A briefly description of the firm's ability to meet RCEA's needs in a consistent and timely manner.

References

- Three (3) former local government (preferred) or private clients for whom comparable services have been performed within the last five (5) years, with a description of the project(s), completion date(s), and approximate cost. Include the name, mailing address, telephone number, and email address of each referenced client's principal representative.

D. Project Fee Proposal

- A detailed personnel-hour estimate by personnel classification for the major portions of the work broken down for each task, milestone report and/or plan deliverable.
- Fees for any subcontractors.
- A total not-to-exceed fee estimate based on services outlined in Scope of Work.

The method of compensation shall be based on a time and expense basis subject to a not-to-exceed amount to complete the project. Proposed rates shall be effective for the term of the contract.

E. Additions, Deletions and/or Exceptions

The successful Proposer will be expected to execute RCEA's Standard Agreement (attached as Exhibit C). The Proposer may note any additions, deletions and/or exceptions to the Standard Agreement by listing on a separate page 1) the specific Standard Agreement provision proposed for revision, 2) the proposed revision, and 3) the reason for the proposed revision. Please note that proposing revisions to the Standard Agreement is strongly discouraged. If there are no proposed revisions, please note in the form: "There are none".

F. Other Requirements

Proposal Term. RCEA reserves the right to withhold award of contract for a period of ninety (90) days following RFP opening. All proposals received are considered firm for that 90-day period.

Standard Agreement, Flow Down Terms. After award of contract, RCEA must obtain approval from the California Energy Commission Agreement Manager prior to execution of the Standard Agreement. Thereafter, an execution-ready Standard Agreement will be sent to the successful Proposer for execution within 5 business days. Consultant shall comply with all provisions of the

Standard Contract including all ARV-22-008 Grant Flow Down Terms. Any additional terms and conditions requested or comments by Proposer must be submitted with the proposal (Section II.E. Additions, Deletions and/or Exceptions) and will be considered as part of the selection/negotiation process.

Requests for Information/Clarification. Any questions as to the meaning of the Scope of Work and/or Technical Specifications or other pre-proposal documents must be directed to the Project Manager, Mike Avcollie, and submitted electronically to procurement@redwoodenergy.org with "RFP-23-501" in the subject line. Any and all such interpretations and any supplemental instructions will be detailed in an addendum and made publicly available no later than that date set forth in Table 1. Project Specific Dates. All addenda so issued shall become part of the contract documents. Under no circumstances may the Proposer contact any other department or individual for clarification or interpretation of any requirements herein.

Rights Reserved. RCEA reserves the right to reject any or all proposals, either separately or as a whole and to waive any informality in a proposal or to accept any proposal presented which it deems best suited to the interest of RCEA and is not to be bound to accept the lowest price.

Costs and Ownership. The cost for developing the proposal is the sole responsibility of the Proposer. All proposals submitted shall become the property of RCEA.

Confidentiality. All proposals will be held in confidence until a contract with the successful proposer is executed or this RFP solicitation process is terminated by RCEA, which ever comes first. Thereafter, public disclosure of proposals is subject to the California Public Records Act ("PRA," Government Code §§ 7920.000). If a proposer believes any portion of their proposal is proprietary, they shall clearly mark each such page as confidential. RCEA will evaluate each claim that marked material is confidential under the PRA and make a determination in its sole discretion whether the material may be publicly disclosed. Notwithstanding the above, RCEA reserves the right to forward complete, unredacted proposals to the California Energy Commission Agreement Manager in compliance with RCEA's ARV-22-008 Grant requirements.

Supplier Clearinghouse and Labor Practices. Consistent with the California Public Utilities Code and California Public Utilities Commission (CPUC) policy objectives, RCEA collects information regarding supplier diversity and labor practices from its contractors 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. Proposers 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.

Discrepancies and Misunderstandings. Firms must satisfy themselves by reasonable examination of the specifications, and other contract documents and by any other means as they may believe necessary, as to the actual physical conditions, requirements and difficulties under which the work must be performed. No firm will at any time after submission of a proposal make any claim or

assertion that there was any misunderstanding or lack of information regarding the nature or amount of work necessary for the satisfactory completion of the job. Any errors, omissions, or discrepancies called to the attention of RCEA will be clarified by RCEA in writing prior to the submission of proposals.

Proposer Licensing Requirements. All Proposers and proposed subcontractors must be properly licensed in accordance with California Business and Professions Code and local law.

Non-Collusion. In submitting a response to this RFP, the Proposer declares that the only persons or parties interested in its proposal as principals are those named therein; that no officer, agent, or employee of RCEA is personally interested, directly or indirectly, in its proposal; and that its proposal is in all respects fair and without collusion or fraud.

SECTION III - SCOPE OF WORK

The expected scope of work for the successful Proposer is as follows:

Project Coordination

a. Project kick-off meeting with RCEA.
b. Coordinate meetings with RCEA as needed.
c. Bi-weekly project updates via email and/or telephone to discuss budget, schedule, and project issues.
d. Coordinate meetings with other project stakeholders and agencies as needed.
e. All correspondence, submittals, and deliverables (preliminary and final) shall be submitted to RCEA electronically (CAD, smart pdf, word, excel, and original file formats on a thumb drive or secure file transfer).
f. After completion of the 100% plan set, Consultant shall be available to respond to requests from RCEA for clarifications or modifications to the plan set as needed during the installation phase expected to occur in the summer of 2024.

A. Engineering Evaluation and Design

a. **Electrical Design and Engineering** – Provide design details and specifications, including but not limited to:
    i. Meter Main Service Panel: Location, service voltage, number of phases, service configuration (delta, wye, etc.) and mounting details (pedestal or backboard),
        i. Must be PG&E Greenbook compliant.
    ii. Circuit Requirements: Number of circuits, ampacity, circuit length, conductor size, grounding requirements.
    iii. Overcurrent Protection: Main service breaker and distribution circuit breaker ratings and specifications.
    iv. One-line diagram depicting all major electrical components.
    v. Incorporate and coordinate design with PG&E Rule 29 Interconnection design for "To the meter" infrastructure.

b. **Civil Design and Engineering** – Provide design details and specifications, including but not limited to:
    i. Trench details: Location, length, depth and width of any required trenches. Conduit placement, back fill details (bedding sand to top of conduit, warning tape location, compaction requirements).
        i. Design to be coordinated with PG&E Rule 29 Interconnection design and meet PG&E Greenbook requirements.
    ii. Underground boring details (if required).
    iii. Concrete pad/slab details for meter/main service equipment and EVCS including slab dimensions, reinforcing steel specifications, anchor bolt specifications, locations, and depth of embedment.

c. **Site Plans and Parking Details** – Provide design details and specifications that meet ADA and CA building code requirements, including but not limited to:
    i. Walkways, ramps (if applicable), transitions to existing walkways.

ii. Parking space and van accessible aisle layout and striping plan
iii. Signage (EV Charging, Van Accessible, or other) details, including height, type and locations.

B. Preparation of Final Plans and Specifications

a. Prepare a single set of plans for all ten (10) EVCS installation sites detailed in Attachment 1: Site Details. The goal is to create a comprehensive plan set that addresses each site with as few sheets as is necessary. Each site will have unique site plan(s), electrical plan(s), and one-line diagram with sufficient detail, when combined with project specifications, to construct each site. Details and specifications that are common to all sites can be included in shared sheets. Provide a single set of project specifications that covers all ten (10) installation sites that can be used in RCEA's construction bid package to procure the installation contractor. Plans shall be prepared in AutoCAD (or approved equal). Plans, contract documents and specification formats, templates and standards will be approved by RCEA. Plan template shall be 22" x 34".

b. Three sets of plan submittals are required: 65%, 95%, and 100% complete. The 65% submittal shall include at a minimum: cover sheet, civil sheets, electrical sheets, site plans and equipment specifications (as applicable). The 95% submittal shall be delivered to RCEA on or before December 1, 2023 and shall be comprised of a complete submittal including all plan sheets and specifications . RCEA will review the submittals and provide comments. The Consultant shall incorporate all comments and provide a final 100% complete set along with a detailed cost estimate, signed by the licensed civil and/or electrical engineer(s) in charge of the project on or before December 20, 2023.

c. For the 65% and 95% submittals provide three (3) copies of reduced (11"x17") plans, and three (3) copies of the plans and specifications , plus one (1) electronic copy (searchable pdf) of the plans and specifications. For the 100% final submittal, provide one (1) full-sized copy (22"x34"), five (5) copies of reduced (11"x17") plans, and three (3) copies of the plans and specifications and cost estimate plus one (1) electronic copy of the plans and specifications (searchable pdf) and cost estimate, . Provide the AutoCAD drawing files electronically. Include any special formats, fonts, etc. to ensure the drawing files can be printed.

ATTACHMENT 1 – SITE DETAILS

A summary of the site locations and number of Level 2 charging ports per site can be found in the table below. All EV charging stations will be dual-port charging stations.

ID	Site	Ports
1	Orleans Volunteer Fire Department, Orleans	2
2	Azalea Hall, McKinleyville	4
3	Mad River Community Hospital, Arcata	4
4	Carlson Park, Arcata	4
5	Sequoia Park, Eureka	4
6	College of the Redwoods, Eureka	4
7	Rohner Park, Fortuna	2
8	Providence Redwood Memorial Hospital, Fortuna	4
9	Redwoods Rural Health Center, Redway	2
10	Jerold Phelps Community Hospital, Garberville	2
	Total:	**32**

Table 1 Summary of the ten sites in RCEA's application for GFO 21-604

The figure below provides a geographic overview of the site locations.

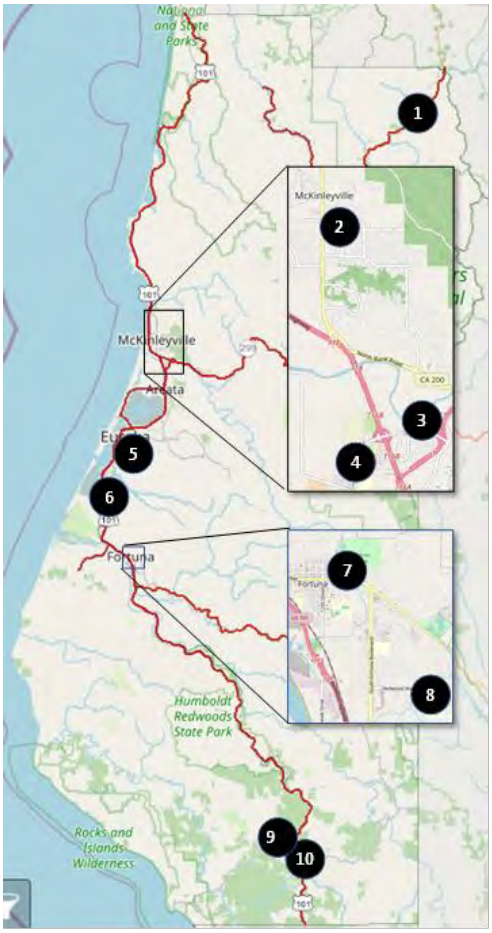


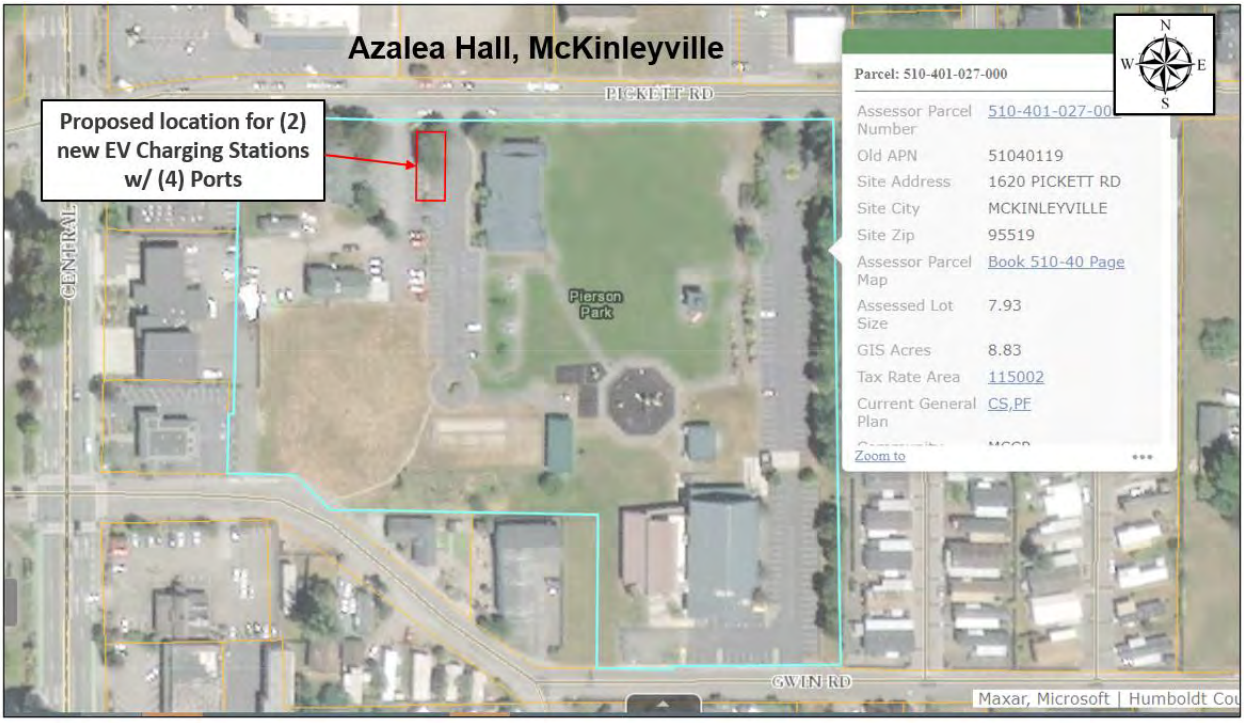
Figure 1 Geographic overview of the location of EVCS installation sites.

Orleans Volunteer Fire Department, Orleans

ID	Site	Address	Number of EVCS	Number of Ports
1	Orleans Volunteer Fire Department, Orleans	166 Ishi Pishi Road Orleans, 95556	1	2

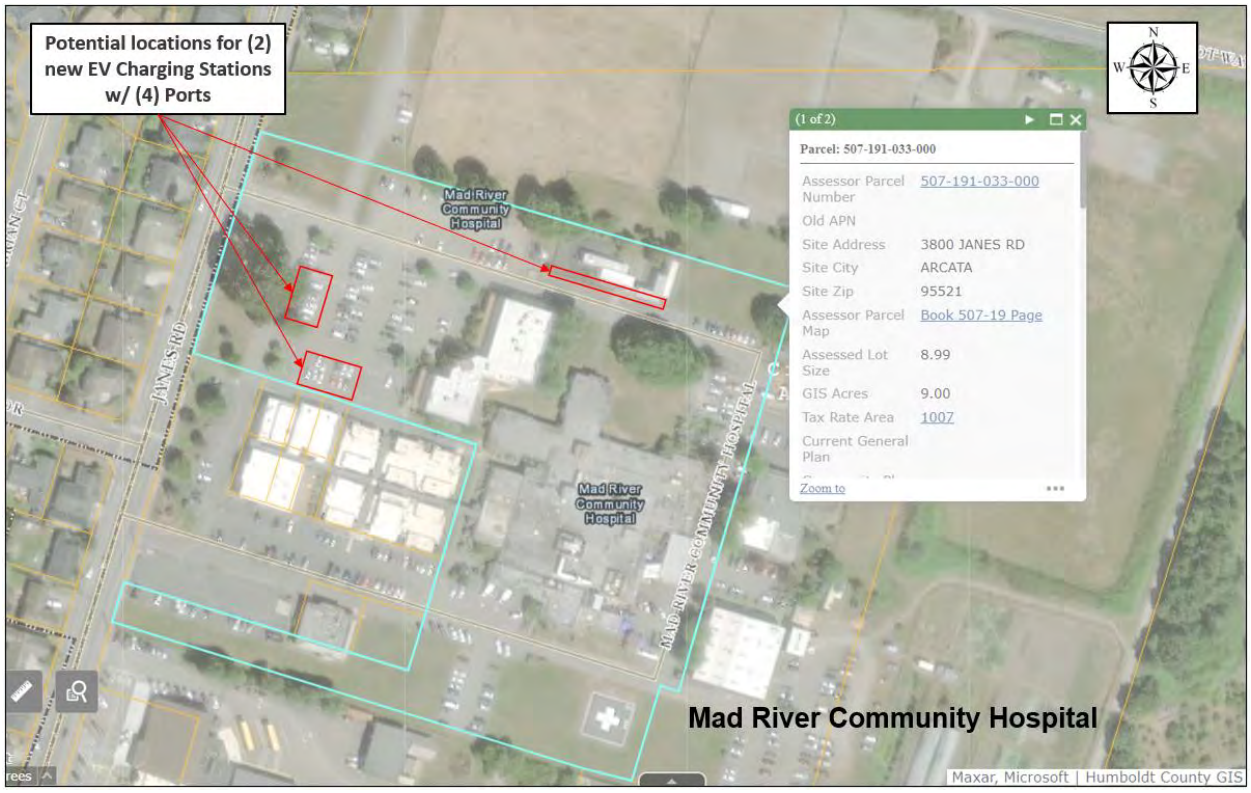
Azalea Hall, McKinleyville

ID	Site	Address	Number of EVCS	Number of Ports
2	Azalea Hall, McKinleyville	1620 Pickett Road McKinleyville, 95519	2	4



Mad River Community Hospital, Arcata

ID	Site	Address	Number of EVCS	Number of Ports
3	Mad River Community Hospital, Arcata	3800 Janes Road Arcata, 95521	2	4



Carlson Park, Arcata

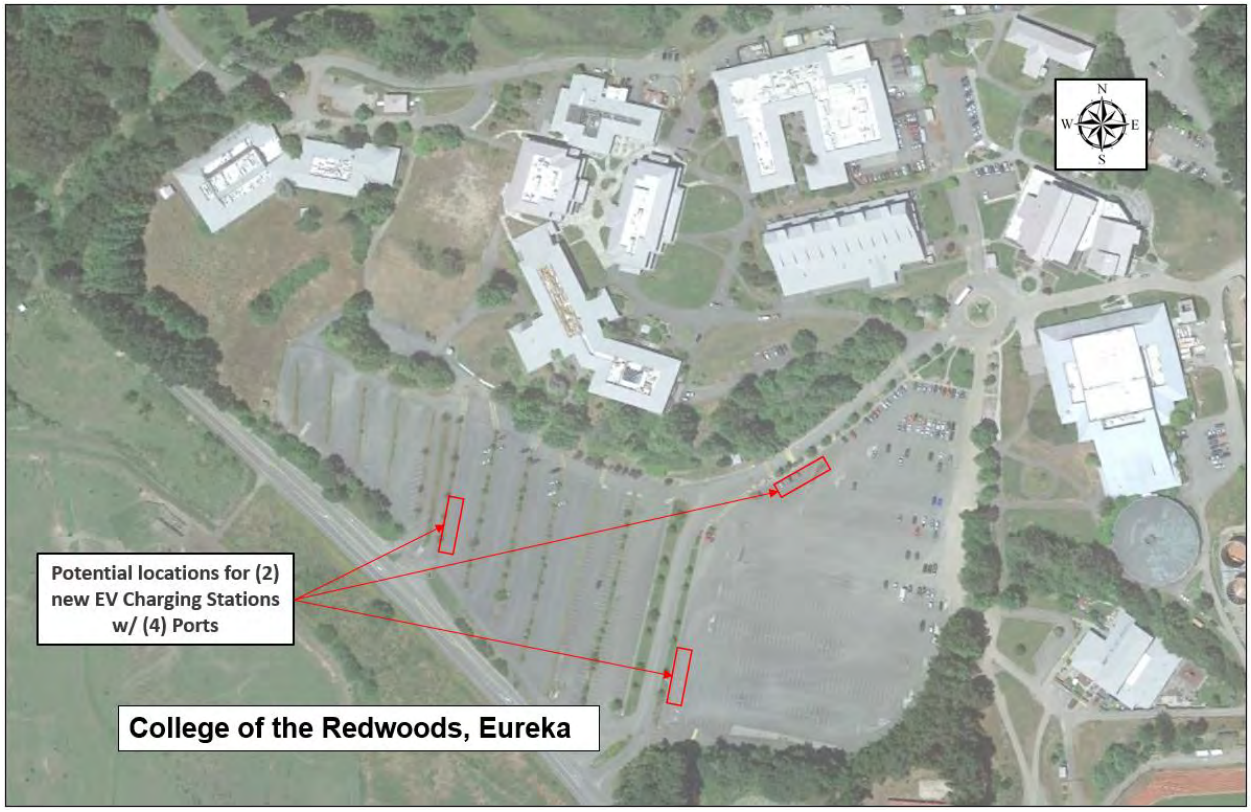
ID	Site	Address	Number of EVCS	Number of Ports
4	Carlson Park, Arcata	5201 Carlson Park Drive Arcata, 95521	2	4

Sequoia Park, Eureka

ID	Site	Address	Number of EVCS	Number of Ports
5	Sequoia Park, Eureka	3414 W Street Eureka, 95501	2	4

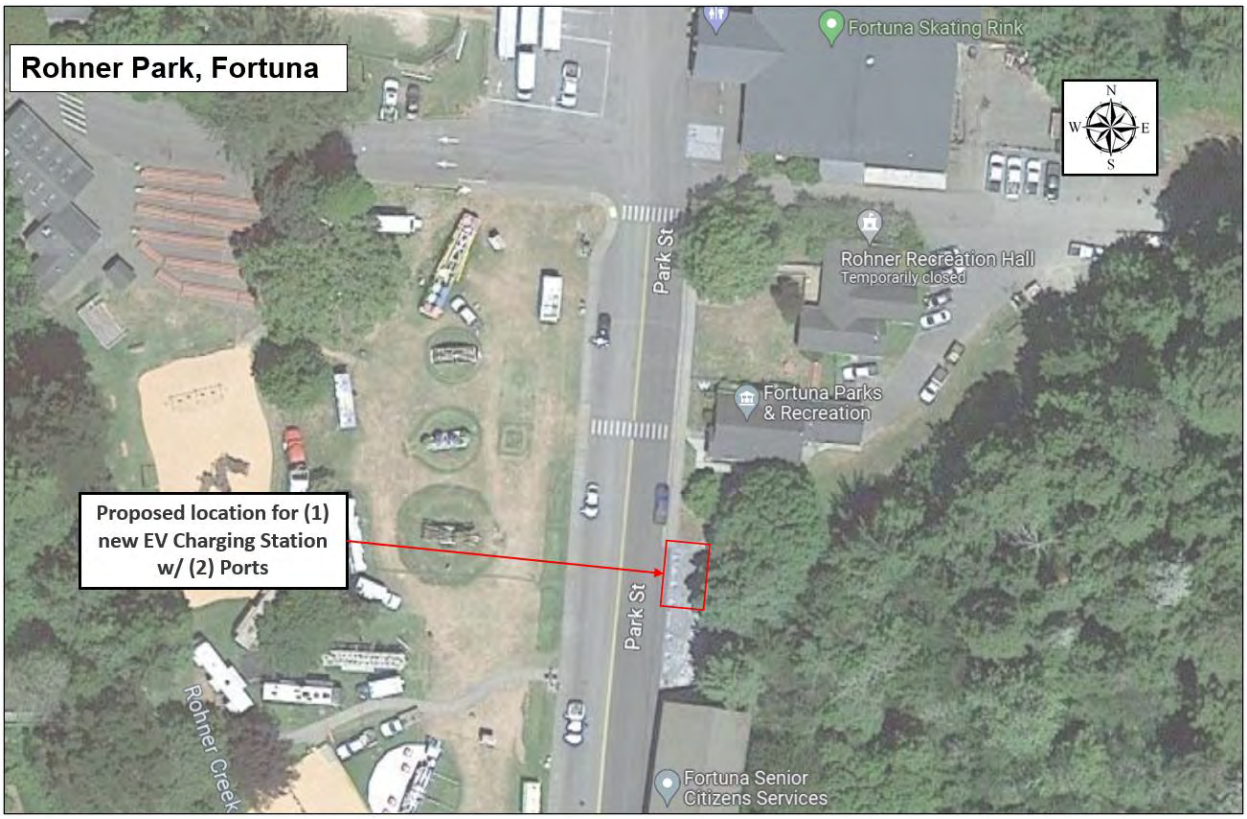
College of the Redwoods, Eureka

ID	Site	Address	Number of EVCS	Number of Ports
6	College of the Redwoods, Eureka	7351 Tompkins Hill Road Eureka, 95501	2	4



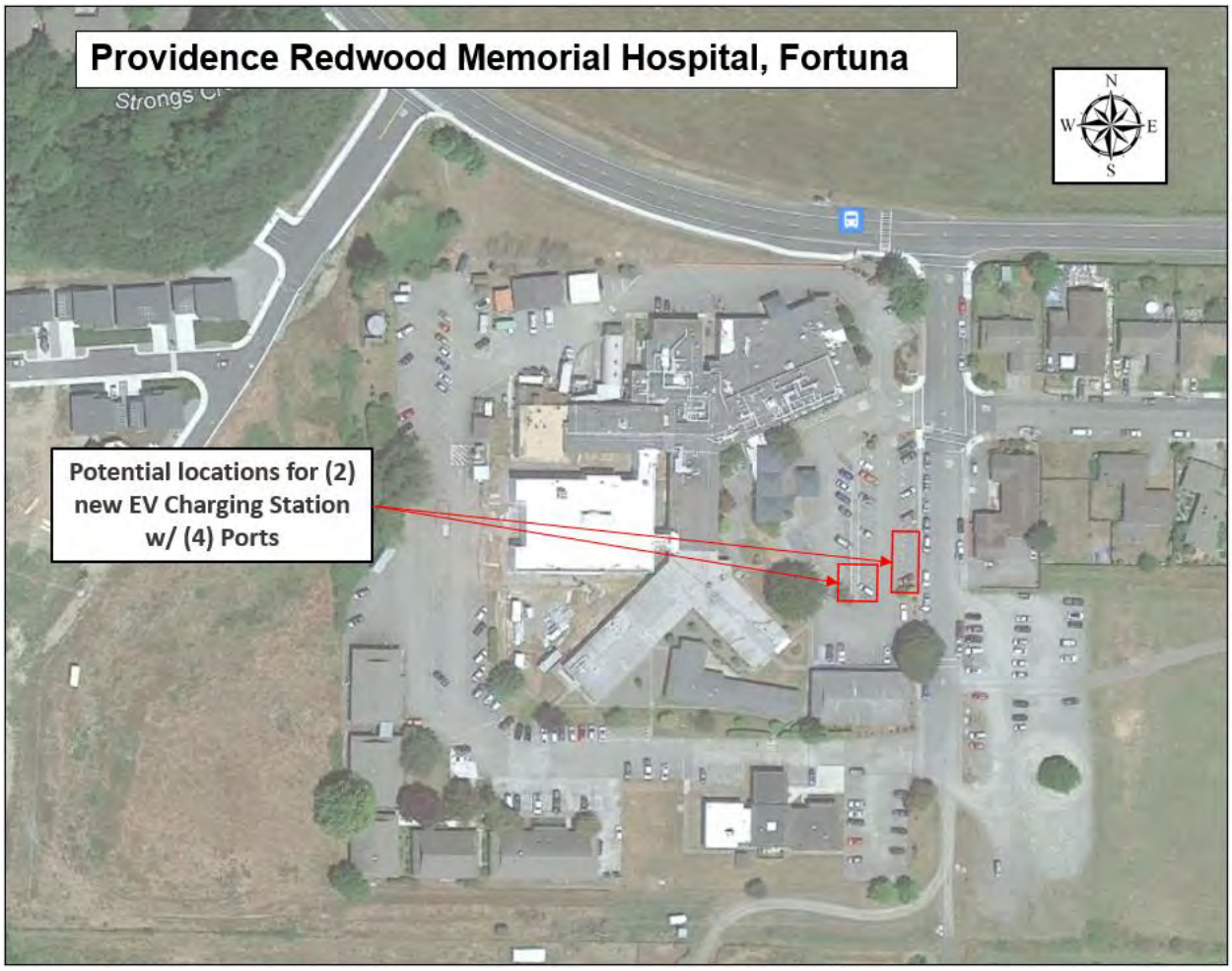
Rohner Park, Fortuna

ID	Site	Address	Number of EVCS	Number of Ports
7	Rohner Park, Fortuna	9 Park St. Fortuna, CA 95540	1	2



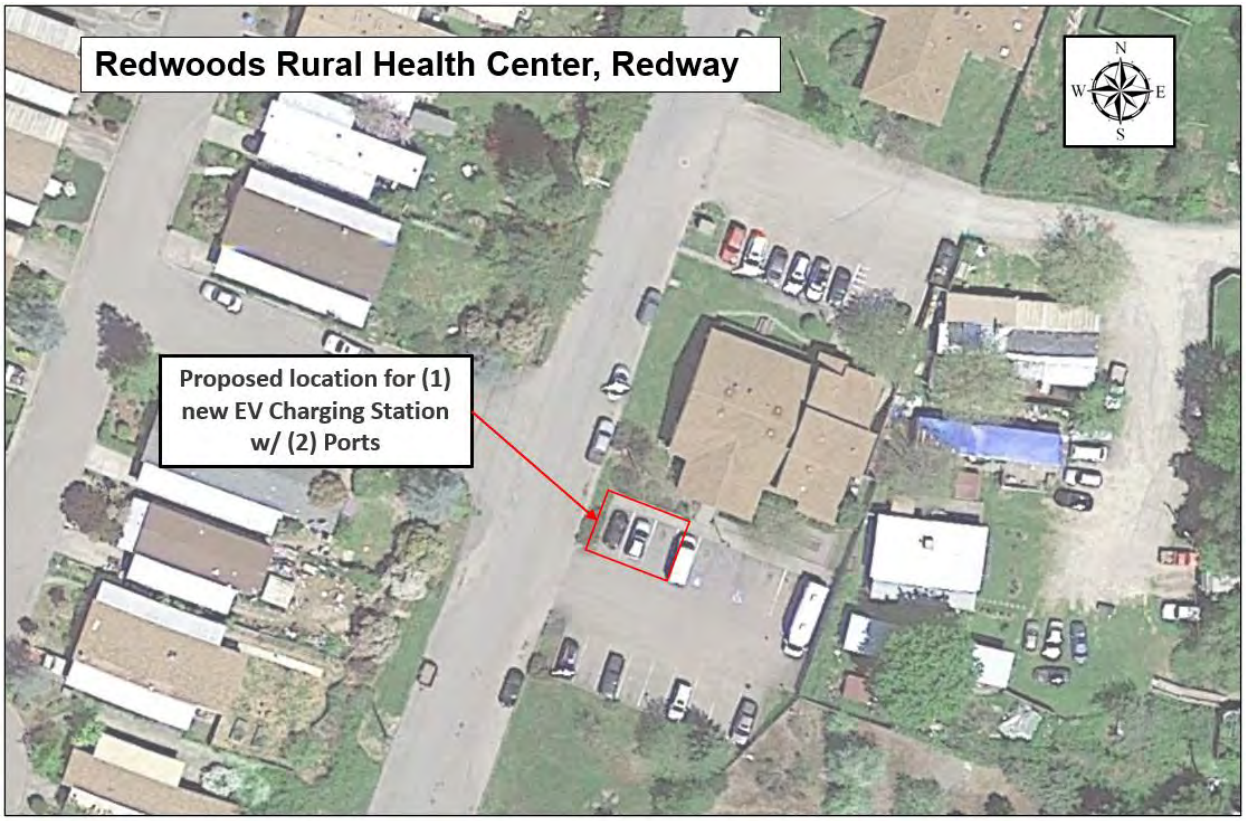
Providence Memorial Hospital, Fortuna

ID	Site	Address	Number of EVCS	Number of Ports
8	Providence Memorial Hospital, Fortuna	3300 Renner Drive, Fortuna, 95540	2	4



Redwood Rural Health Center, Redway

ID	Site	Address	Number of EVCS	Number of Ports
9	Redwood Rural Health Center, Redway	101 West Coast Road, Redway, 95560	1	2



Jerold Phelps Community Hospital, Garberville

ID	Site	Address	Number of EVCS	Number of Ports
10	Jerold Phelps Community Hospital, Garberville	733 Cedar Street, Garberville, 95542	1	2

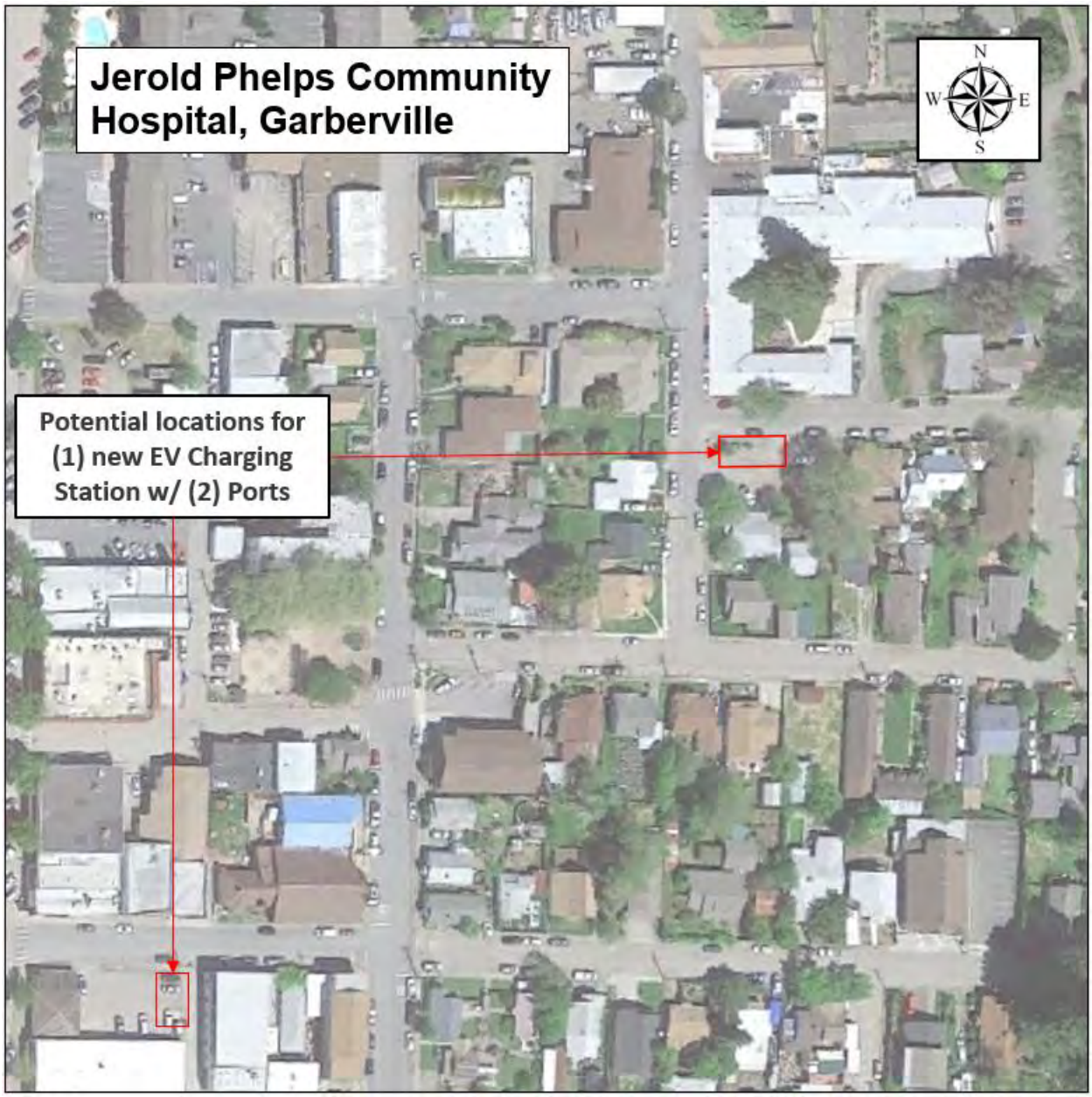


EXHIBIT A – LIST OF SUBCONTRACTORS

Subcontractor Name: _____

Services for which Subcontractor is being used: _____

Subcontractor qualifications: _____

_____

Subcontractor's relevant experience (attach separate page(s), as needed): _____

_____

_____

_____

_____

_____

Subcontractor Name: _____

Services for which Subcontractor is being used: _____

Subcontractor qualifications: _____

_____

Subcontractor's relevant experience (attach separate page(s), as needed): _____

_____

_____

_____

_____

_____

(ATTACH ADDITIONAL SHEETS IF MORE THAN TWO SUBCONTRACTORS ARE REQUIRED)

EXHIBIT B – FIRM'S BUSINESS INFORMATION

Length of time your firm has been in business:	
Length of time at current location:	
List types and business license number(s):	
California State Contractor's License number:	
Names and titles of all officers of the firm:	
Is your firm a sole proprietorship doing business under a different name? If yes, please indicate sole proprietorship name and the name you are doing business under:	☐Yes ☐No
Please indicate your Federal Tax Number:	
Is your firm incorporated?	☐Yes ☐No
Name and remittance address that will appear on invoices:	
Physical Address:	

EXHIBIT C - STANDARD AGREEMENT

AGREEMENT FOR
PROFESSIONAL ELECTRICAL DESIGN AND ENGINEERING SERVICES
BETWEEN THE REDWOOD COAST ENERGY AUTHORITY AND
_____

This Agreement For Professional Electrical Design And Engineering Services ("Agreement") is made and entered into by and between the Redwood Coast Energy Authority ("RCEA"), a Joint Powers Authority, and_____, ("CONSULTANT"), a _____. RCEA and CONSULTANT are hereinafter also referred to collectively as the "Parties" and individually as a "Party". This Agreement is effective _____.

RECITALS

WHEREAS, RCEA has entered into the Alternative and Renewable-Fuel Vehicle ARV-22-008 grant agreement with the California Energy Commission (CEC) as a recipient of a CEC Clean Transportation Program grant for rural electric vehicle charging ("Grant Agreement");

WHEREAS, pursuant to the Grant Agreement RCEA seeks to build rural charging access and community resilience in Humboldt County by adding to its existing electric vehicle charging station ("EVCS") infrastructure16 dual-port Level 2 ECVS at ten strategic community hub locations across Humboldt County;

WHEREAS, through an open and competitive process, RCEA solicited professional design and engineering services proposals to assist with its implementation of the Grant Agreement;

WHEREAS, CONSULTANT has the demonstrated qualifications, skills and training necessary to perform the Grant Agreement services needed by RCEA, and RCEA desires to retain CONSULTANT to complete the said services based on the terms and conditions below.

NOW, THEREFORE, based on the conditions recited herein and made a material part hereof, the Parties agree as follows:

1. **Contract Documents**. Contract documents consist of the following documents, including all changes, addenda, and modifications thereto:

   1.1 Agreement and all attachments;
   1.2 AVR-22-008 Grant Agreement
   1.3 RCEA's Request for Proposals (RFP);
   1.4 CONSULTANT's proposal submitted in response to RFP.

   For avoidance of doubt, the order of priority for interpreting conflicting provisions among these documents is in the order stated above, with Section 1.1, this Agreement and all attachments, taking the highest order of priority.

2. **Scope of Services.**

   2.1 Services Defined. CONSULTANT agrees to perform the services as set out in Exhibit A, "Scope of Work" attached hereto and incorporated by reference ("Services"). Services shall be provided

in accordance with the terms and conditions of this Agreement. In the event of conflict between the provisions contained in Sections 1 - 27 of this Agreement and those within Exhibit A, the terms and conditions of Sections 1 -27 shall control over those in Exhibit A.

2.2 Special Conditions. CONSULTANT shall comply with all additional terms and conditions set forth in Exhibit C "Special Conditions," if any are required [*check applicable box*]:

__X__ Special Conditions _____ No Special Conditions

2.3 Materials and Equipment. CONSULTANT shall, at its sole cost and expense, furnish all materials and equipment which may be required for performing Services excepting those items specifically identified in Exhibit A.

2.4 Representations: CONSULTANT represents that it has reviewed the RFP and that in its professional judgment the services to be performed under this Agreement can be performed within the maximum fee set forth in (Section 3.1 - Compensation) and within the time specified in the project schedule (Exhibit "A") attached hereto. CONSULTANT, further represents that it is qualified to perform the professional services required by this Agreement and that it possesses the necessary licenses and permits required to perform said services.

3. Term. Services by Consultant shall commence upon full execution of this Agreement by both parties. Consultant shall complete all Services in accordance with the time schedule set forth in Exhibit A.

4. Compensation, Billing and Payment.

4.1 Compensation. CONSULTANT shall be paid for Services on a time and materials basis, based on the rate and budget attached hereto and incorporated herein as Exhibit B, "Compensation" for a maximum amount not to exceed _____ Dollars ($_____).

4.2 Billing. CONSULTANT shall submit invoices no more frequently than monthly and the final bill upon completion of Services. Invoices shall contain a time summary of work performed by each person for whom charges are billed. Invoices shall be sent to RCEA, 633 3rd Street, Eureka, CA 95501, Attention: Accounting, or emailed to accounting@redwoodenergy.org.

4.3 Payment. If RCEA disputes an invoice, it may withhold that portion so contested and shall pay the undisputed amount. RCEA may withhold all or any portion of the funds provided for by this Agreement in the event that the CONSULTANT has materially violated, or threatens to materially violate, any term, provision, or condition of this Agreement; or the CONSULTANT fails to maintain reasonable progress toward completion of the Services or any component thereof. RCEA shall make payment to CONSULTANT within thirty (30) working days after approval of the invoice.

5. Standard of Care. All professional services to be provided by CONSULTANT pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with care, diligence and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. CONSULTANT shall be responsible for the professional and technical soundness, accuracy, and adequacy of all designs, drawings, specifications, and other work and materials furnished under this Agreement. the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices.

6. **Prevailing Wage and Labor Code Compliance**. This project is assumed to be a public works project and subject to Labor Code compliance for prevailing wage monitoring and enforcement by the Department of Industrial Relations in addition to other applicable provisions.

6.1 Prevailing Wages. A determination of the general prevailing rates of per diem wages and holiday and overtime work applicable to the work is available for review upon request at the RCEA office, and shall be posted at the job site. CONSULTANT and all subcontractors will not pay less than the prevailing rates of wages. The statutory provisions for penalties for failure to comply with state's wage and hour laws will be enforced (Labor Code § 1813). CONSULTANT shall forfeit as penalty to the RCEA the sum of up to two hundred dollars ($200.00) for each calendar day or portion thereof, and for each worker paid less than the prevailing rates.

6.2 Overtime pay. Pursuant to the California Labor Code, eight hours labor constitutes a legal day's work and is applicable to certain workers on public works projects. CONSULTANT shall ensure that its workers for which this requirement is applicable are paid at a rate of one and one-half times the basic rate of pay for work in excess of eight hours during a calendar day or 40 hours during a calendar week. CONSULTANT shall forfeit as penalty to the RCEA twenty-five dollars ($25.00) for each worker, including subcontractors' workers, for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of this provision.

6.3 Other Labor Code Requirements. CONSULTANT shall comply with Labor Code § 1777.5 concerning employment of apprentices. CONSULTANT shall comply with California Labor Code Section 1776 for payroll accounting.

6.4 Certification. CONSULTANT shall certify to RCEA on each invoice, either that (1) prevailing wages were paid to eligible workers who provided labor for work covered by the payment request and that CONSULTANT and its subcontractors otherwise complied with all California prevailing wage laws, or (2) that the project is not a public work requiring the payment of prevailing wages.

7. **Conflicts of Interest**. CONSULTANT hereby warrants and represents the following:

7.1 CONSULTANT does not and will not participate in the making of RCEA or decisions;

7.2 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;

7.3 CONSULTANT does not have any separately defined financial or other interests that could be characterized as conflicts of interest under the PRA;

7.4 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

7.5 CONSULTANT does not have a separate financial relationship with any RCEA employees that would qualify as a conflict of interest under the PRA.

7.6 CONSULTANT agrees to comply with RCEA's conflict of interest policy.

8. **Hold Harmless and Indemnification**. If this Agreement is for design professional services subject to California Civil Code § 2782.8(a) and CONSULTANT is a design professional as defined in California Civil Code § 2782.8(c)(2), to the fullest extent allowed by law, CONSULTANT shall hold harmless, defend and indemnify RCEA, its officers, agents, employees, and volunteers from and against all claims, damages, losses, and expenses including attorneys' fees arising out of, or pertaining to, or relating to the negligence, recklessness, or willful misconduct of CONSULTANT, not to exceed CONSULTANT'S proportionate percentage of fault.

If this Agreement is not for design professional services subject to California Civil Code § 2782.8(a) or CONSULTANT is not a design professional as defined in California Civil Code § 2782.8(c)(2), to the fullest extent permitted by law, CONSULTANT shall indemnify and hold harmless RCEA and its board, committees, officials, employees and agents (collectively "Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including attorney's fees and costs to the extent same are caused in whole or in part by any negligent or wrongful act, error or omission of CONSULTANT, its officers, agents, employees or subcontractors or any entity or individual for which CONSULTANT shall bear legal liability in the performance of professional services under this Agreement.

CONSULTANT's responsibility for defense and indemnity obligations shall survive the termination or completion of this Agreement for the full period of time allowed by law. The defense and indemnification obligations of the Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this Agreement

9. **Insurance**. CONSULTANT agrees to maintain, at a minimum, the insurance coverage as set out below at all times during the terms of this Agreement and all additional terms set forth in Exhibit D "Special Insurance Conditions," if any are so required [*check applicable box, below*]. Failure to maintain the required insurance shall be grounds for termination of this Agreement.

_____ Special Insurance Conditions _____ No Special Insurance Conditions

9.1 All insurance carriers shall be admitted in the state of California and with an A.M. Best's rating of A- or better and a minimum financial size VII. Said coverage shall include an endorsement to add RCEA, its officers, agents and employees, as additional insureds with respect to liability arising out of or connected with the services to be provided under this Contract. Said coverage shall additionally be endorsed to specify that the CONSULTANT'S insurance is primary and that insurance or self-insurance maintained by RCEA shall not contribute with it. Upon request, CONSULTANT shall furnish RCEA with certificates of insurance and endorsements of all required insurance. Said documentation shall state that coverage shall not be cancelled except after thirty (30) days prior written notice has been given to RCEA. In the event CONSULTANT subcontracts any part of the Services, each subcontractor shall be bound by the same terms and conditions concerning insurance as required by this Agreement will be made a part of any such subcontract agreement. RCEA reserves the right at any time during the term of the Agreement to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice.

9.2 Workers' Compensation and Employers' Liability Insurance: CONSULTANT shall provide Workers' Compensation and Employers' Liability insurance for CONSULTANT's employees and agents to the extent required by law.

9.3 Commercial General Liability: CONSULTANT shall maintain $1 million minimum commercial general liability insurance coverage on an occurrence basis, including products and completed operations, property damage, bodily injury and personal and advertising injury.

9.4 Business Auto: If applicable, CONSULTANT shall maintain $1 million minimum business automobile insurance coverage.

9.5 Professional or Errors and Omissions Insurance. CONSULTANT shall maintain such Professional or Errors and Omissions Insurance as will provide protection from any claim arising out of any negligent act, error or omission in rendering or failing to render professional services either committed or alleged to have been committed by CONSULTANT or by anyone employed by CONSULTANT to perform or furnish any of the Services, or by anyone for whose acts any of them may be liable. Such coverage shall not be less than $1,000,000 single limit, any one claim and $2,000,000 annual aggregate.

9.6 Insurance Reductions, Waivers. RCEA may, in its sole discretion, reduce or waive any insurance coverage requirements provided herein based on an analysis of the availability of insurance coverage for the type of professional consultant retained by this agreement, the type of risk exposure for RCEA, and the financial capability of CONSULTANT to bear the risk of losses without insurance. Any specific insurance coverage reductions or waivers shall be itemized in Exhibit D.

9. Independent Contractor Status. CONSULTANT shall perform all Services as an independent contractor. No person performing any of the Services shall be considered an officer, agent, servant or employee of RCEA, nor shall any such person be entitled to any benefits, including but not limited to Workers Compensation Benefits, available or granted to employees of RCEA. CONSULTANT shall be solely responsible for the acts or omissions of its officers, agents, employees, and subcontractors. Nothing herein shall be construed as creating a partnership or joint venture between RCEA and CONSULTANT.

10. Assignment. Neither party may assign its obligations under this Agreement without the prior written consent of the other, except that CONSULTANT may assign the proceeds due under this Agreement to any bank or person without such written consent. Any assignment by the CONSULTANT in violation of this provision shall be void, and shall be cause for immediate termination of this Agreement. Subject to the provisions of this Section, this Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties.

11. Subcontracting. The CONSULTANT shall not subcontract any portion of the work required by this Agreement without prior written approval of the RCEA, except for any subcontract work identified herein. If CONSULTANT shall cause any part of the project to be performed by a subcontractor, the provisions of this contract shall apply to such subcontractor, and CONSULTANT shall be liable hereunder for all acts and negligence of the subcontractor.

12. Retention of Books of Record and Audits. The CONSULTANT shall maintain on a current basis complete books and records relating to this Agreement (including financial records, progress reports, payment records and payroll records) for a minimum of four years from the (i) RCEA's acceptance of all services under this Agreement and (ii) receipt of final payment, whichever comes last. The CONSULTANT will permit RCEA to audit all books, accounts or records relating to this Agreement.

13. Document Submission and Title to Documents. CONSULTANT agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or

graphic work and intellectual property produced in the performance of this Agreement is considered work made for hire and shall be the property of RCEA upon delivery. RCEA may disclose, disseminate and use in whole or in part, any final form data and information received, collected, and developed under this Agreement.

14. Confidentiality. CONSULTANT acknowledges RCEA may provide it with confidential information and CONSULTANT shall sign a non-disclosure agreement before receiving such information.

15. Nondiscriminatory Employment. During the performance of this contract, CONSULTANT and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, reproductive health decision making, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. CONSULTANT and its subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination. CONSULTANT and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12900 et seq.) and the applicable regulations promulgated thereunder (Cal. Code Regs., tit. 2, § 11000 et seq.). The applicable regulations of the Civil Rights Council implementing Government Code section 12990, set forth in Subchapter 5 of Division 4.1 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a part hereof as if set forth in full. CONSULTANT and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

16. Entirety of Contract. This Agreement shall constitute the entire agreement between the parties relating to the subject matter of this agreement, and shall supersede any previous agreements, promises, representation, understanding and negotiation, whether oral or written, concerning the same subject matter. Any and all act which may have already been consummated pursuant to the terms which are embodied in this Agreement are hereby ratified.

17. Amendment. No addition to, or alteration of, the terms of this Agreement shall be valid unless made in writing and signed by the parties hereto.

18. Suspension, Termination

18.1 Suspension. At any time and for any reason, RCEA may temporarily suspend the Services upon five days' written notice to CONSULTANT. In such event, CONSULTANT shall perform no additional Services under this Agreement until RCEA has provided written notice to CONSULTANT to re-commence Services.

18.2 Termination. This Agreement may be terminated for any reason set forth below:

(a) *With Cause*. RCEA may, for cause, terminate this Agreement upon giving five (5) calendar days advance written notice to CONSULTANT. In this event, the Recipient will use all reasonable efforts to mitigate its expenses and obligations. The term "for cause" includes but is not limited to the following:

(i) Partial or complete loss of ARV-22-008 Grant Funds;

(ii) CONSULTANT's persistent failure to perform Services in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, failure to adhere to the progress

schedule as approved from time-to-time by RCEA);

(iii) CONSULTANT's disregard of applicable laws and regulations;

(iv) CONSULTANT's repeated disregard of the authority or orders of the RCEA;

(v) CONSULTANT's repeated or persistent default of any of the provisions of the Contract Documents;

(vi) CONSULTANT's material breach of any provision of the Contract Documents;

When RCEA terminates CONSULTANT's Services under this Section, CONSULTANT shall be entitled to receive payment only for such Services accepted by RCEA prior to the date of termination. The termination of CONSULTANT's services under this paragraph will not affect any rights or remedies RCEA may have against CONSULTANT existing at the time of termination or which may later accrue. Any release of retention or payment by RCEA will not release CONSULTANT from liability.

(b) *Without Cause*. RCEA may cancel this Agreement at any time and in RCEA's discretion upon giving thirty das advance written notice to CONSULTANT. CONSULTANT shall be entitled to receive payment for acceptable Services performed prior to the termination date. CONSULTANT shall be entitled to no further compensation for SERVICES performed after such date.

(c) *Product and Document Delivery*. Upon termination of the Agreement for any reason, CONSULTANT will deliver to RCEA all data and originals of all plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work and other materials prepared or produced under this Agreement, whether completed or incomplete, and all such material shall become the property of RCEA upon the termination date.

19. <u>Designation of Representative</u>. CONSULTANT and RCEA shall designate specific individuals to act as representatives ("Designated Representative"), who shall have authority to transmit instructions, receive information, and implement the Agreement on behalf of each respective party. Either Party may change its Designated Representative or the address of its Designated Representative by giving reasonable notice to the other Party.

20. <u>Notices</u>

All notices or other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been given when delivered if personally delivered, or three (3) business days after mailing if mailed by certified mail, postage prepaid, return receipt requested, and shall be addressed as follows:

Notices shall be given to RCEA at the following address:

Lori Biondini, Director of Business Development and Planning
Redwood Coast Energy Authority
633 3rd Street
Eureka, CA 95501

Notices shall be given to CONSULTANT at the following address:

_____
_____
_____

21. **Compliance with Applicable Laws**. The CONSULTANT shall perform the services required by this Agreement in compliance with any and all applicable federal, state and local laws affecting the Services covered by this Agreement, including, but not limited to, those laws related to minimum hours and wages; occupational health and safety; fair employment and employment practices; workers' compensation insurance and safety in employment; and all other Federal, State and local laws and ordinances applicable to the services required under this Agreement.

22. **Jurisdiction and Venue**. This Agreement shall be construed in accordance with the laws of the State of California, and the parties hereto agree that venue shall be in Humboldt County, California.

23. **Headings**. The headings of this Agreement are for purposes of reference only and shall not limit or define the meaning of the provisions of this Agreement.

24. **Severability**. If any paragraph, section, sentence, clause or phrase contained in this Agreement shall become illegal, null or void or against public policy, for any reason, or shall be held by any court of competent jurisdiction to be illegal, null or void or against public policy, the remaining paragraphs, sections, sentences, clauses or phrases contained in this Agreement shall not be affected thereby.

25. **Waiver**. The waiver of any breach of any provision hereunder by any party hereto shall not be deemed to be a waiver of any preceding or subsequent breach hereunder.

26. **Authority**. Each of the undersigned hereby warrants that he/she has authority on behalf of his or her principal to execute this agreement.

27. **Counterpart Signatures**. This Agreement may be signed in separate counterparts, and all counterparts, when signed, shall constitute an enforceable agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement to be effective on the date and year first hereinabove written.

RCEA:	**CONSULTANT:**
_____	_____
Matthew Marshall, Executive Director	Name:
Redwood Coast Energy Authority	Title:
Date: _____	Date: _____

EXHIBIT A: SCOPE OF WORK

EXHIBIT B: COMPENSATION

EXHIBIT C: SPECIAL CONDITIONS

Additional Provisions

CONSULTANT agrees to comply with, and to ensure that all of CONSULTANT's subcontractors and subconsultants agree to comply with, the following:

1. Nondiscrimination.

a. During the performance of this Agreement, CONSULTANT, and its subcontractors shall not deny the Agreement's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, reproductive health decision making, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. CONSULTANT shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

b. CONSULTANT shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12900 et seq.), the regulations promulgated thereunder (Cal. Code Regs., tit. 2, § 11000 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code, §§ 11135-11139.8), and the regulations or standards adopted by the awarding state agency to implement such article.

c. CONSULTANT shall permit access by representatives of the Civil Rights Department and the awarding state agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause.

d. CONSULTANT and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

e. CONSULTANT shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

2. Standard of Performance.

CONSULTANT, in the performance of work under this Agreement shall be responsible for exercising the degree of skill and care required by customarily accepted good professional practices and procedures used in the COUNSULANT's field.

Any costs for failure to meet the foregoing standard or to correct otherwise defective work that requires re-performance of the work, as directed by the Energy Commission Manager, shall be borne in total by CONSULTANT and not the Energy Commission. The failure of a project to achieve the performance goals and objectives stated in the Scope of Work is not a basis for requesting re-performance unless the work conducted by CONSULTANT and/or its subcontractors is deemed by the Energy Commission or RCEA to have failed the foregoing standard of performance.

In the event CONSULTANT fails to perform in accordance with the above standard:

a. CONSULTANT will re-perform, at its own expense, any task which was not performed to the reasonable satisfaction of the Energy Commission Contract Manager and RCEA. Any work re-performed pursuant to this paragraph shall be completed within the time limitations originally set forth for the specific task involved. COSULTANT shall work any overtime required to meet the deadline for the task at no additional cost to the Energy Commission or RCEA;

b. The Energy Commission or RCEA shall provide a new schedule for the re-performance of any task pursuant to this paragraph in the event that re-performance of a task within the original time limitations is not feasible; and

c. The Energy Commission or RCEA shall have the option to direct CONSULTANT not to re-perform any task which was not performed to the reasonable satisfaction of the Energy Commission Contract Manager or RCEA pursuant to application of (a) and (b) above. In the event the Energy Commission or RCEA directs CONSULTANT not to re-perform a task, the Energy Commission or RCEA and CONSULTANT shall negotiate a reasonable settlement for satisfactory work performed. No previous payment shall be considered a waiver of the Energy Commission's or RCEA's right to reimbursement.

Nothing contained in this section is intended to limit any of the rights or remedies which the Energy Commission may have under law.

3. **Retention of Records**.

CONSULTANT shall retain all project records (including financial records, progress reports, and payment requests) for a minimum of three (3) years after the final payment has been received by RCEA from the Energy Commisssion or three years after the federal grant term, whichever is later, unless otherwise specified in the funding Agreement.

4. **Indemnification**.

CONSULTANT agrees to indemnify, defend, and save harmless the State, its officers, agents, and employees from any and all claims and losses accruing or resulting to Recipient and to any and all contractors, subcontractors, materialmen, laborers, and any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by CONSULTANT in the performance of this Agreement.

5. Audits.

Upon written request from the Energy Commission, CONSULTANT shall provide detailed documentation of all expenses at any time throughout the project. In addition, CONSULTANT agrees to allow the Energy Commission or any other agency of the State, or their designated representative, upon written request, to have reasonable access to and the right of inspection of all records that pertain to the project during the term of this Agreement and for a period of three (3) years thereafter or three years after the federal grant term, whichever is later, unless the Energy Commission notifies CONSULTANT or RCEA, prior to the expiration of such three-year period, that a longer period of record retention is necessary. Further, CONSULTANT agrees to incorporate an audit of this project within any scheduled audits, when specifically requested by the State. CONSULTANT agrees to include a similar right to audit in any subcontract.

6. **Prevailing Wages**. The Energy Commission assumes that this project is subject to the payment of prevailing wages. By accepting this Agreement, CONSULTANT as a material term of this Agreement shall be fully responsible for complying with all California public works requirements including but not limited to payment of prevailing wage. Therefore, as a material term of this Agreement, CONSULTANT must ensure that:

    a. the project budget for labor reflects these prevailing wage requirements; and

    b. the project complies with all other requirements of prevailing wage law including but not limited to keeping accurate payroll records, and complying with all working hour requirements and apprenticeship obligations.

7. **Assembly Bill 841 (2020)**. By signing this Agreement, CONSULTANT as a material term of this Agreement shall be fully responsible for complying with this section. AB 841 (Ting, 2020) added Public Utilities Code (PUC) section 740.20, which requires Electric Vehicle Infrastructure Training Program (EVITP) certification to install electric vehicle charging infrastructure and equipment for work performed on or after January 1, 2022, subject to certain exceptions. As a policy matter, the CEC is applying the EVITP certification requirements to project work funded under this Agreement, regardless of whether it might be performed prior to January 1, 2022, unless an exception applies. Therefore, applying PUC 740.20 EVITP requirements to this Agreement means that all electric vehicle charging infrastructure and equipment located on the customer side of the electrical meter shall be installed by a contractor with the appropriate license classification, as determined by the Contractors' State License Board, and at least one electrician on each crew, at any given time, who holds an EVITP certification. Projects that include installation of a charging port supplying 25 kilowatts or more to a vehicle must have at least 25 percent of the total electricians working on the crew for the project, at any given time, who hold EVITP certification. One member of each crew may be both the contractor and an EVITP certified electrician. The requirements stated in this paragraph do not apply to any of the following:

    a. Electric vehicle charging infrastructure installed by employees of an electrical corporation or local publicly owned electric utility.

    b. Electric vehicle charging infrastructure funded by moneys derived from credits generated from the Low Carbon Fuel Standard Program (Subarticle 7 (commencing with Section 95480) of Article 4 of Subchapter 10 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations).

    c. Single-family home residential electric vehicle chargers that can use an existing 208/240-volt outlet.

EXHIBIT D: SPECIAL INSURANCE REQUIREMENTS, REDUCTIONS, WAIVERS

[*attach if applicable*]

September 21, 2023

Redwood Coast Energy Authority
633 3rd Street
Eureka, CA 95501
Email: procurement@redwoodenergy.org

RE: Request for Proposal (RFP) for Design and Engineering Services for the Electric Vehicle Charging Network Phase II Project (RFP-23-501)

Mr. Avcollie,

Thank you for the opportunity to respond to the Request for Proposal for Design and Engineering Services for the Electric Vehicle Charging Network Phase II Project (RFP-23-501). Please find included within this packet our project understanding and experience, executive summary, statement of qualifications and project fee proposal. The fee proposal is a firm offer valid for 90-days after the proposal has been opened. My signature below provides authority on behalf of Whitchurch Engineering, Inc. to commit to this agreement.

Whitchurch Engineering, Inc. (WEI) is focused on providing solution-oriented services for our clients. We have an excellent reputation and relationship with local and regional permitting jurisdictions. Our team members have extensive experience coordinating and working with our clientele during project design phases and supporting construction. Our skill set is ideally suited for your project.

WEI has been providing cost effective, quality civil and structural engineering services since 1996. WEI has compiled an experienced team with a commitment to providing buildable solutions. Our talent pool has expanded over the years to include a Licensed Architect, Mechanical, Electrical & Plumbing (MEP) engineers, a Certified Building Official, and one of our engineers also holds a California Contractors license. WEI can be found in two locations: our home office located at 610 9th Street in Fortuna and our branch office located at 716 Harris Street in Eureka.

Please consider our high level of engineering competence, long history of positive client relations, and strong work ethic as key factors when reviewing our qualifications. Please reach out to us with any questions, comments or concerns regarding your project or this proposal.

Sincerely,

Darren Tully, PE
Engineering and Contract Manager
716 Harris Street
Eureka, CA 95503
Office: (707) 444-1420
[redacted]
Email: [redacted]@whitchurchengineering.com

Table of Contents

General Requirements

Understanding of Project and Approach

This deliverable and coordination task list includes the representative deliverables for each stage of the project. This list will be similar but not exact for each project site. These stages and deliverables are represented in our project approach and schedule. Duplicate details, technical specifications, and design info that is redundant between the (10) listed site locations will be consolidated and referenced appropriately in effort to minimize the volume of the construction drawing set. The below breakdown is intended to provide transparency into the design approach and ensure that accurate project percentages can be furnished based on the below metrics to the client upon request.

Preliminary Drawing Development Phase (5%)

1. Key coordination tasks will include:
    a. Preliminary review of background project documents, plans, and reports. Prepare list of questions in preparation of the Kickoff meeting.
    b. Kickoff meeting attendance with client, and other stakeholders to confirm design intent, and establish operational and facility needs at new locations
    c. Development of a project schedule
    d. A site visit to obtain site measurements and evaluate existing equipment condition
    e. Bi-Weekly coordination meetings by the design team to update schedule and budget progress
2. Development of existing conditions drawings

Schematic Design Development (15%)

1. Development of schematic drawings based on layout provided by the Client in the kickoff phase
2. Key coordination tasks will include:
    a. A meeting with client to review the schematic drawings, develop a list of client comments, and discuss project schedule
    b. Distribution of base drawings to engineering disciplines
3. Revision of schematic drawings to incorporate client comments

Design Drawing Development (30%)

1. Development of 30% Design Development drawings based on the approved drawings from the Schematic Design Phase.
2. A meeting with client and stakeholders to review drawings, update project schedule
3. Revise the preliminary project cost estimate provided during the Schematic Phase to reflect the 30% Design Development Plan set updates.

Construction Document Development (65% to 95%)

1. Development of 65% Electrical and Civil Construction drawings including at a minimum; Cover sheet, site plan, civil utility drawings, electrical sheets and equipment specifications
2. Key 65% coordination tasks will include:
    a. Submittal of 65% construction progress drawing set to client
    b. Establishment of project technical specifications required for installation
3. Development of 95% Civil Construction drawings which will include additional detailing, complete specifications (on the drawings) and the following drawings: Coversheet, project site plan, civil layout, utility plan, notes sheet
4. Development of 95% Electrical drawings which will include additional detailing and complete notes and the following drawings: finalized electrical load calculations, equipment layout, panel schedules, plan view electrical layout and home runs, conductor schedule

5. Key 95% coordination tasks will include:
    a. Submittal of 95% construction drawings to client
    b. Submittal of Project Technical Specifications in the drawings based on 95% design basis
    c. A meeting with client to review final drawings and update progress schedule
    d. Update project cost estimate per 95% design

Construction Document Completion (100%)

6. Key 100% milestone tasks will include:
    a. Submittal of 100% construction drawings to client with 95% comments addressed
    b. Project Technical Specifications (in drawings) based on 100% design basis
    c. Finalized project cost estimate based on the 100% Construction Drawing Set

Construction Supporting Activities

1. Provide clarification for any questions related to the plans or drawings prepared by this firm.
1. Provide responses to material submittals for review and approval by the designer.
2. Responding to RFIs during the construction phase.
3. Review of contract change orders as requested.
4. Construction meeting attendance with contractors (virtual meeting attendance is assumed) as requested

Services to Be Provided

Each of the listed locations described will have the stated deliverables generated with an effort being made to consolidate redundant information and minimize the overall size of the plan set.

Location Descriptions with desired quantity of ports;

ID	Site	Ports
1	Orleans Volunteer Fire Department, Orleans	2
2	Azalea Hall, McKinleyville	4
3	Mad River Community Hospital, Arcata	4
4	Carlson Park, Arcata	4
5	Sequoia Park, Eureka	4
6	College of the Redwoods, Eureka	4
7	Rohner Park, Fortuna	2
8	Providence Redwood Memorial Hospital, Fortuna	4
9	Redwoods Rural Health Center, Redway	2
10	Jerold Phelps Community Hospital, Garberville	2

A. Electrical Vehicle (EV) Charging Station Plan established as per the below work description – Provide plans and details as needed to obtain a permit for proposed new "EV Installed" charging stations at the specified project locations. Scope also provides for ADA accessibility considerations from charging spots.

1. Project Management
    a. Initial project kickoff meeting with the RCEA and project team (one meeting anticipated to address all (10) proposed site locations)
    b. Bi-weekly updates on project via email or phone call to the RCEA point of contact
        i. Meetings will be scheduled by the consultant on an as needed basis to address questions or

issues that arise on the project.

ii. If possible, meetings will correspond with the bi-weekly project updates being provided regularly, however, questions and issues will be addressed expediently as they arise.

c. Maintaining up to date project schedule and tracking of available budget for statusing and reporting purposes

2. Site visit to assess and review existing conditions
   a. electrical panel conditions
   b. ADA path of travel considerations relative to proposed EV charging station
   c. Obtain spot elevations and measurements for ADA path of travel design
3. Electrical Design
   a. Prepare a site plan of the parking lot area identifying the locations, conduit routing, and quantity of EV charging stations to be installed.
   b. Coordinate brand and location of EV charging stations with the client.
   c. Prepare the following plans and evaluations based on the current National Electric Code (NEC), California Energy Code (CEC), California Building Code (CBC), PG&E Greenbook and Rule 29 requirements in addition to any local jurisdictional ordinances:
      i. Electrical Notes Sheet
      ii. Specifications for main service panel, and supporting electrical components.
      iii. Overcurrent protection specification
      iv. Panel schedule
      v. One-Line Diagram for electrical and grounding
      vi. Conduit and conductor schedules
4. Supporting Design activities:
   a. Civil Support
      i. Preparation of existing Site plan
      ii. Prepare Civil Layout Drawing indicating the proposed parking details and requirements.
         a. Details for ADA parking location requirements, signage, and markings.
         b. Slab and paving sections and details for construction
         c. ADA path of travel to locations identified in RFP-23-501
      iii. Site Utility layout drawing
         a. Routing and installation details for below ground conductors and conduits directly related to the placement and installation of the specified quantity of Level 2 charging station ports
         b. Trench section with material and installation specifications
         c. Backfill and compaction specifications.
         d. Details for repair of impacted existing concrete slabs or AC surfaces.
      iv. Anchorage calcs and installation details for charging station installation
   b. Plan Check - Address (1) round of jurisdictional plan check comments pertaining to Consultant's scope of work
   c. Construction Assistance and Verification
      i. Review of provided submittals to support the above-described SOW.
      ii. Respond to RFIs from bidders.
      iii. Periodic site visits to verify construction is being performed in accordance with the

plans and specifications.

B. Deliverables

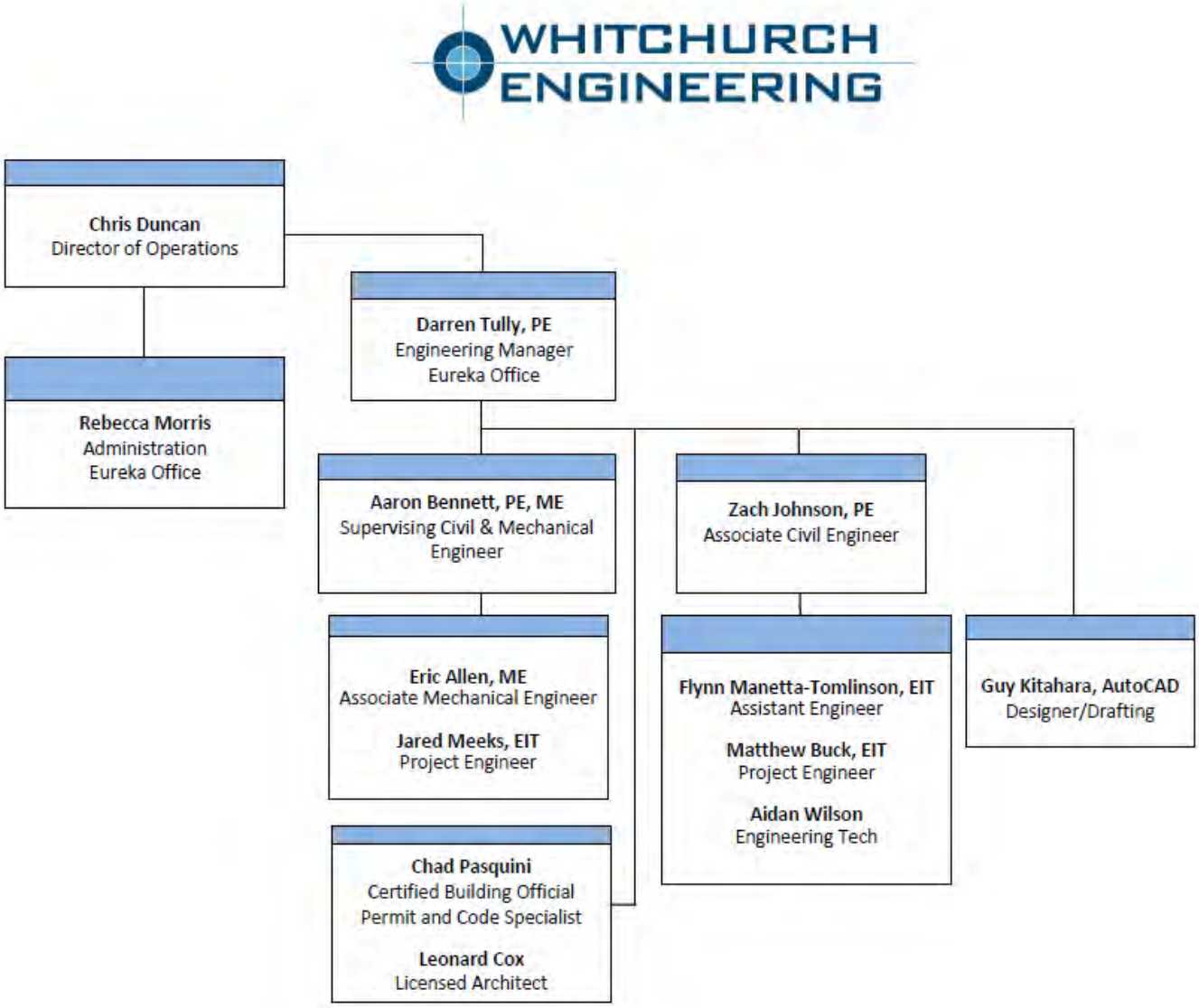
1. 65 & 95% submittals including plans and equipment specifications will be provided as specified in RFP-23-501

2. 100% submittals will be stamped and signed sets of plans and supporting calculations for the installation of new EV charging stations and required supporting ADA features and path(s) of travel. Plans will be delivered as specified in of RFP-23-501, including in both electronic and paper formats.
    a. Electrical Plan Sheets; Plan, Notes, One-Lines, Grounding diagram, Updated Panel Schedules, Conductor/conduit schedule, Details, Equipment Specifications.
    b. Civil Plan Sheets; Coversheet, project site plan, civil layout, utility plan, notes sheet
    c. Project technical specifications to be included in the plan sets
    d. Project cost estimate(s)

Work Schedule

See Attachment 1 for project work schedule to meet the December 20th submittal milestone date.

Project Organization and Staffing Chart



Firm's Business Information

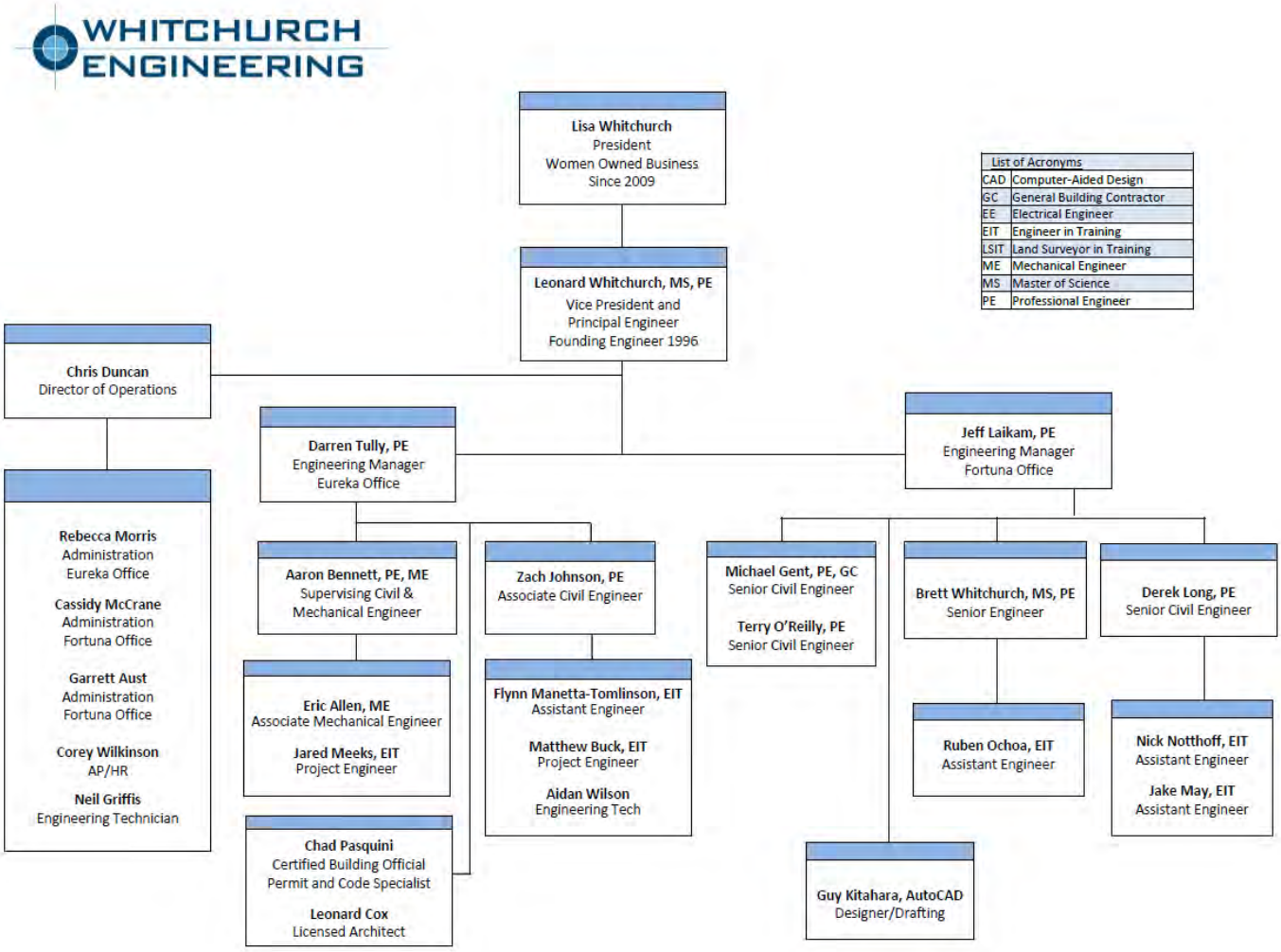
Length of time your firm has been in business:	27 years
Length of time at current location:	27 years in Humboldt County
List types and business license number(s):	City of Fortuna Business License Number: 0892 City of Eureka Business License Number: BL-3137
California State Contractor's License number:	N/A
Names and titles of all officers of the firm:	Lisa Whitchurch, President Leonard Whitchurch, Vice President Chris Duncan, Director of Operations
Is your firm a sole proprietorship doing business under a different name? If yes, please indicate sole proprietorship name and the name you are doing business under:	☐Yes ☒No
Please indicate your Federal Tax Number:	[redacted]
Is your firm incorporated?	☒Yes ☐No
Name and remittance address that will appear on invoices:	Whitchurch Engineering, Inc. 610 9th Street Fortuna, CA 95540
Physical Address:	Whitchurch Engineering, Inc. 610 9th Street Fortuna, CA 95540

Executive Summary

WEI has been providing cost effective, quality civil and structural engineering services to the Humboldt County, since 1996. With 27 years in Humboldt County, WEI has compiled an experienced team with a commitment to providing buildable solutions. Our talent pool has expanded over the years to include a Licensed Architect, Mechanical, Electrical & Plumbing (MEP) engineers, a Certified Building Official, a Certified Project Management Professional, and one of our engineers also holds a California Contractors license. WEI is owned, operated and managed by Lisa and Leonard Whitchurch, was incorporated in 2001 and is an S-Corporation

WEI has two offices in Humboldt County: one in Fortuna and one in Eureka, where the work will be performed. Our Eureka office is a five-minute drive from RCEA's offices and facilities. We currently have 27 employees, with each key member of our staff brings a unique advantage to our projects using past experiences, engineering basis, and an eye for detail. WEI alone has over 100 years of combined engineering, design and construction experience in Humboldt County.

Overall Organizational Chart



Authorized Representative of the Firm

Darren Tully
Engineering Manager
Office Phone: 707-444-1420
Cell Phone: [redacted]
Email: [redacted]@whitchurchengineering.com

Qualifications and Licenses of Key Staff Assigned to Project

Our team is comprised of experienced design engineers and supporting personnel. Each having a specialty that relates to the proposed project. Below are their brief qualifications and licenses. Resumes can be found in Attachment 2.

Darren Tully, PE – Engineering Manager/Team Lead – California No 73755

In a managerial role, Darren assists project engineers with code compliance, project scheduling, budgeting, permit assistance and contract management for all aspects of residential, commercial, municipal, and industrial projects. Darren has been the designer of record for many large-scale projects, consistently provides buildable solutions and excels in managing contracts and client communications. He also provides Quality Assurance / Quality Control for our branch office. Darren provides engineering guidance, project reviews and engineering experiences to all of his projects.

Leonard Cox – Licensed Architect - California No. C26300

Leonard has extensive experience designing commercial, educational, institutional and residential projects. He provides schematic design, construction drawings, specifications, permit approval support, bid processing and construction administration. Leonard understands the importance of communication and seeks to design buildable solutions within a client's budget and schedule. He is proficient at preliminary site planning, production of final site plan and elevation drawings, and obtaining final Division of State Architect approval for educational and clinical facility projects.

Aaron Bennett, PE, ME – Mechanical Engineering Supervisor- California No. 79365, California No. 38514

Mr. Bennett has 17 years of experience and is a self-motivated Senior Engineer having worked in nuclear decommissioning, demolition, restoration, and construction industries for over 12 years. He is a licensed Civil Engineer, licensed Mechanical Engineer, and experienced Project Planner. He recognizes that establishing and maintaining good client and stakeholder relationships promotes successful project completion. Aaron recently completed the Humboldt Bay Power Plant Decommissioning and Restoration Project. For the entire project, Aaron provided engineering and planning expertise for site owner during self-performed scope and later as a subcontractor to the prime civil works contractor. He is well diversified in all aspects of project planning and engineering with excellent understanding of field construction support needs and intelligent site infrastructure planning.

Eric Allen – Mechanical Engineer – California No. 41001

Eric has both professional and practical experience as a mechanical engineer. He has spent most of his career working within the practical mechanical processes. He has also obtained the professional designation. His experience with the functionality of mechanical equipment allows him to reduce client cost through optimization and diagnostic efficiency. Eric specializes in electrical, HVAC, and water systems.

Zach Johnson, PE – Civil Engineer – California No. 92416

Zach Johnson is an experienced Professional Civil Engineer with a degree in Environmental Resource

engineering. Zach has worked with WEI for 10 years, starting with fuel station projects for Renner Petroleum. Since he started working for WEI, Zach has acquired a select set of skills that has let him excel in site development, civil engineering solutions, and stakeholder coordination. Zach is our lead Low Impact Development designer, as well as our lead Civil 3D designer on large projects.

Chad Pasquini - Certified Building Official – Code Review

Chad has spent his entire career in the building industry. His most recent 19-years has been as a Certified Building Official, Building Inspector, Plans Examiner, and Code Enforcement Officer ensuring the health and safety of the public. His experience encompasses a full range of development review from residential additions through large commercial projects. He ensures compliance with all applicable building and energy codes, coordinates and schedules with permitting agencies and helps to expedite plan issuance. Chad aids architects, contractors, designers, engineers, and home owners to achieve their goals in completing building projects from the ground up such as new single-family residences, residential remodels and additions, land use permits, commercial tenant improvements, new commercial construction, and hotels, apartments, and multi-story buildings.

Guy Kitahara – CAD Drafter

Guy has spent his entire career in the building industry and has been performing professional drafting services for over 30 years. His experience encompasses all project types and the quality of his drafting reflects the length of time that Mr. Kitahara has been performing this type of work.

The firm and all assigned key professional staff are properly licensed to practice in California.

Statement of Qualifications

Qualifications and Experience

The projects have three major parts in regard to design; survey, civil engineering, and electrical engineering. WEI has been providing survey and civil design since 1996. We have worked with many agencies, tribes, and developers completing accessible designs throughout Humboldt County and beyond. In 2009, WEI began working for PGE in regard to the nuclear decommissioning of the Humbold Bay Power plant. During that time, Aaron Bennett, P.E. completed his Civil Engineering professional license and Mechanical Engineering professional license. Aaron and Eric Allen, with WEI, perform our Electrical, Plumbing and Mechanical engineering designs.

Whitchurch has completed a number of EV ready installations throughout the counties of Humboldt and Mendocino. This includes providing infrastructure and readiness for “EV ready” locations for;

Orr Creek Commons (phases 1 & 2) in Ukiah Ca, 2019; 2020; Project completed

Pinehill Village in Eureka, Ca; 2020; Project Completed

The Moorpark development in Moorpark, Ca; 2021; Project underway

In 2022, the Blue Lake Rancheria selected WEI to perform the survey, Civil, Structural, Electrical, Plumbing and Mechanical work for their Resiliency campus to be sited northwest of the current Casino. Part of this work was the design of EV parking stalls and associated charging stations. Working with the Schatz Energy Lab, building electrical was incorporated in to the building backup power systems and the onsite infrastructure. The work has not started at this time.

In 2023, United Indian Health Services hired WEI to provide EV parking stalls in the parking lot next to a proposed dental clinic in downtown Eureka. The work has not started at this time, except for preliminary investigations and discussions with PG&E.

Resumes can be found in Attachment 2.

Availability

The timeline for the 95% plan submittal milestone is essentially 2 months from award to December 1st. Due to this time of the year. Most of our construction projects are wrapping up or have been completed as the Humboldt rainy season is beginning, therefore, we have more availability for completing survey work, drafting and designing. Most customers start bringing new projects after the 1st of the year and rarely in the fall season.

Whitchurch Engineering, inc. also has two offices. While the majority of work is expected to be completed by the Eureka office, should necessity prevail we have another group of talented engineers to pull from. Should employees become sick and unavailable, we do have further resources to ensure the work is being completed on schedule.

For the purposes of completing this project by the requested milestone date, shared details and notes between project locations will be consolidated into common sheets to eliminate redundancy. The civil site designs for each location will be site specific and are planned to be worked in parallel allowing the overall completed plan set to be completed in the most expedient manner.

References

WEI has gained experience providing services for governmental agencies with varying work similar to this project. Two of our most recent contracts with agencies are below. We have also performed specific Electric Vehicle charging engineering for the Blue Lake Rancheria with their resiliency project as listed below the local governmental agencies.

Local Government and Client References

County of Humboldt

WEI is currently the Engineering firm for on-call Architectural Design and Project Management Services for ADA Remodeling Projects with the County of Humboldt. Our contact, Travis Smith is the CAO Project Manager for the County's ADA Compliance Team, and his information is below.

Travis Smith
CAO Project Manager, ADA Compliance Team
825 5th Street Room 112
Eureka, CA 95501
Phone: [redacted]
Email: [redacted]@co.humboldt.ca.us

To date we have provided the County with the following work:

- Clam Beach ADA Improvements Contract Services:
  - Design of ADA Parking, Path of Travel, and Signage
  - Perform Topographic Survey of Project Site
  - Prepare Site Plan
  - Prepare Grading Plan and Construction Details for all Improvements
  - Prepare Specification Package
  - Perform Bidding Services and Assist County with Bid Review
  - Construction Administration, Submittal Review, RFI Responses, Oversee Schedule, Perform Inspections
  - Project was stopped after design by client.
  - Design Budget was $15,000, work was stopped at $9,816.
- ACV Airport Improvements:
  - Topographic Survey of Parking and Proposed EV Charging Station Locations
  - Prepare Grading Plan of Site
  - Prepare Schematic Design of Parking and Path of Travel
  - Design 8 new Accessible Parking Stalls and EV stalls with Path of Travel
  - Coordinate with EV Charging Station Design Team
  - Prepare Specification Package
  - Perform Bidding Services and Assist County with Bid Review
  - Construction Administration, Submittal Review, RFI Responses, Oversee Schedule, Perform Inspections
  - Project was stopped after design by client.
  - Design Budget was $37,300, work was stopped at $24,052
- Arcata/Fortuna Library – Cost Estimate Services for ADA Improvements:
  - Provide Cost Estimate for Architectural Design, Construction Management, and Probable Construction Costs for Fortuna and Arcata Libraries Accessibility and Remodel.
  - Time and Materials Budget estimated at $2,500, final cost was $3,280
- Ferndale Veterans Hall – Professional Architectural Design Services
  - Topographical Survey of Project Site
  - Site Plan of Project Site
  - Creation of Building Floor Plans
  - Prepare Design for Improvements to Accessible Parking, Path of Travel, Ramps, Landings, Stairwells, and Handrails, Signage, Switches, Faucets, Hardware, and make Bar Area Accessible.

  - Prepare Specification Package
  - Perform Bidding Services and Assist County with Bid Review
  - Construction Administration, Submittal Review, RFI Responses, Oversee Schedule, Perform Inspections
  - Plans have been submitted and ready for bid
  - Current design budget for project is $41,472
- Big Lagoon Campground ADA Improvements:
  - Design ADA Improvements to the Campgrounds Day Use Area, and Design of Accessible Camp Sites.
  - Topographic Survey of Project Site
  - Creation of Grading/Drainage Plan
  - Remodel Plans for Bathroom
  - Prepare Specification Package
  - Perform Bidding Services and Assist County with Bid Review
  - Construction Administration, Submittal Review, RFI Responses, Oversee Schedule, Perform Inspections
  - Plans have been submitted and ready for bid
  - Current design budget for project is $131,000

Scotia Community Services District, Scotia, CA

WEI employee, Jeff Laikam, P.E. is the current District Engineer for Scotia Community Services District and he started working there with the former General Manager, Leslie Marshall. He now works with the new General Manager, Steve Coppini.

Reference**:**
Steve Coppini
Scotia Community Services District General Manager
400 Church St.
Scotia, CA 95565
Phone: (707) 764-3030
Email: infoscotiacsd@gmail.com

Jeff Laikam with our Fortuna office is the current District Engineer for the Scotia Community Services District. He has been providing the below work to date:

- On-Call Engineering Services 10/31/19 – Current

  - Oversee services such as water, sewer, and recreation for the Scotia Community Service District operating in the Town of Scotia.
- Scotia Soccer Field Accessibility Improvements
  - Topographic Survey of Project Site
  - Design of new accessible parking, seating, and path of travel for spectator area.
  - Bid Services, Construction Administration, and Inspections
- ADA Restrooms and Parking Lot Improvements at the Scotia Ballpark
  - Design new accessible parking, remodel of bathroom, and path of travel
  - Currently in the bid process now.
- Scotia Museum Remodel
  - Prepare Improvement Drawings for the Scotia Museum
  - Oversee Architect for Remodel
  - Perform Bid Services and Construction Administration
  - Mechanical and Electrical Engineering Design
  - Project Management
- Remodel of Winema Theater (Scotia)
  - Prepare Improvement Drawings for the Winema Theater
  - Oversee Architect for Remodel
  - Perform Bid Services and Construction Administration
  - Structural Engineering Design
  - Project Management

Blue Lake Rancheria – TOMA Resilience Campus

The Blue Lake Rancheria received funding for a resiliency campus, and we worked with an out of the area Architect to provide the design for the new Commercial Buildings and Campus with approximately 20,000 sq ft of floor area. Within the design was the addition of Electric Vehicle Charging Stations (EVCS) into the parking areas.

Reference:

Steven Huegli
833 Market Street, 7th Floor
San Francisco, CA 94103
Phone: [redacted]
Email: [redacted]@jensen-architects.com

The new facility was designed to support regional economic and environmental resiliency, workforce development and training, conferencing, and natural disaster recovery. The facility's stated program includes training facilities; flexible incubator workspace; makerspace/shop; youth lab; commercial teaching kitchen; retail store and café; exhibition lobby, access drive, and parking lot. The project is currently in the bid phase. The engineering design budget to date is $249,400.

Orr Creek Commons (phases 1 & 2) in Ukiah Ca, Ph 1-2019; Ph 2-2020; Project completed

This project consisted of a multifamily affordable housing project that was completed over 2 successive phases. Whitchurch was responsible for the mechanical, electrical, plumbing and structural design support.

This included supporting site civil aspects including sizing of the site service and incorporation of EV ready charging locations into the design for each phase.

Pinehill Village in Eureka, Ca; 2020; Project Completed

This project consisted of a multifamily affordable housing project that was completed in Eureka, CA. Whitchurch was responsible for the mechanical, electrical, plumbing and structural design support. This included supporting site civil aspects including sizing of the site service and incorporation of EV ready charging locations into the design.

Project Fee Proposal

Total Contract Price (Not to Exceed): $99,088 Time and Materials (T&M)

Whitchurch Engineering Staffing Titles and Rate

Staff Member Position Title Rate	Staff Member Position Title Rate	Staff Member Position Title Rate
Darren Tull, $200/hour	PE Engineering Manager	$200/hour
Aaron Bennett, PE, ME	Mechanical Engineering Supervisor, Senior Civil Engineer	$175/hour
Eric Allen	ME MEP Engineer	$125/hour
Zach Johnson, PE	Site Civil Design Lead	$140/hour
Flynn Manetta-Thomlinson	Civil Engineer	$110/hour
Leonard Cox	Architect	$100/hour
	Certified Building Official	$100/hour
	Design Engineers	$70 to $100/hour
	Drafting	$100/hour
	Survey Equipment	$300 per day
	Mileage	$.90/mile

Billing rates are subject to potential annual merit or inflation raises for personnel. Annual inflation or merit raises will not exceed 10%. Engineers with engineer in training certifications may receive up to a 20% raise if the professional engineer certification for California is attained.

Contract Exclusions: Contract exclusions include any items not specifically listed in the Scope of Work description and task breakdown provided in this RFP response.

Project Estimate is based on the task breakdown with assigned budget for each item specified in Attachment 3.

Additions, Deletions and/or Exceptions

Exhibit C – Standard Agreement

1) Specific Standard Agreement provision proposed for revision
   Section 9.3 on page C-5:

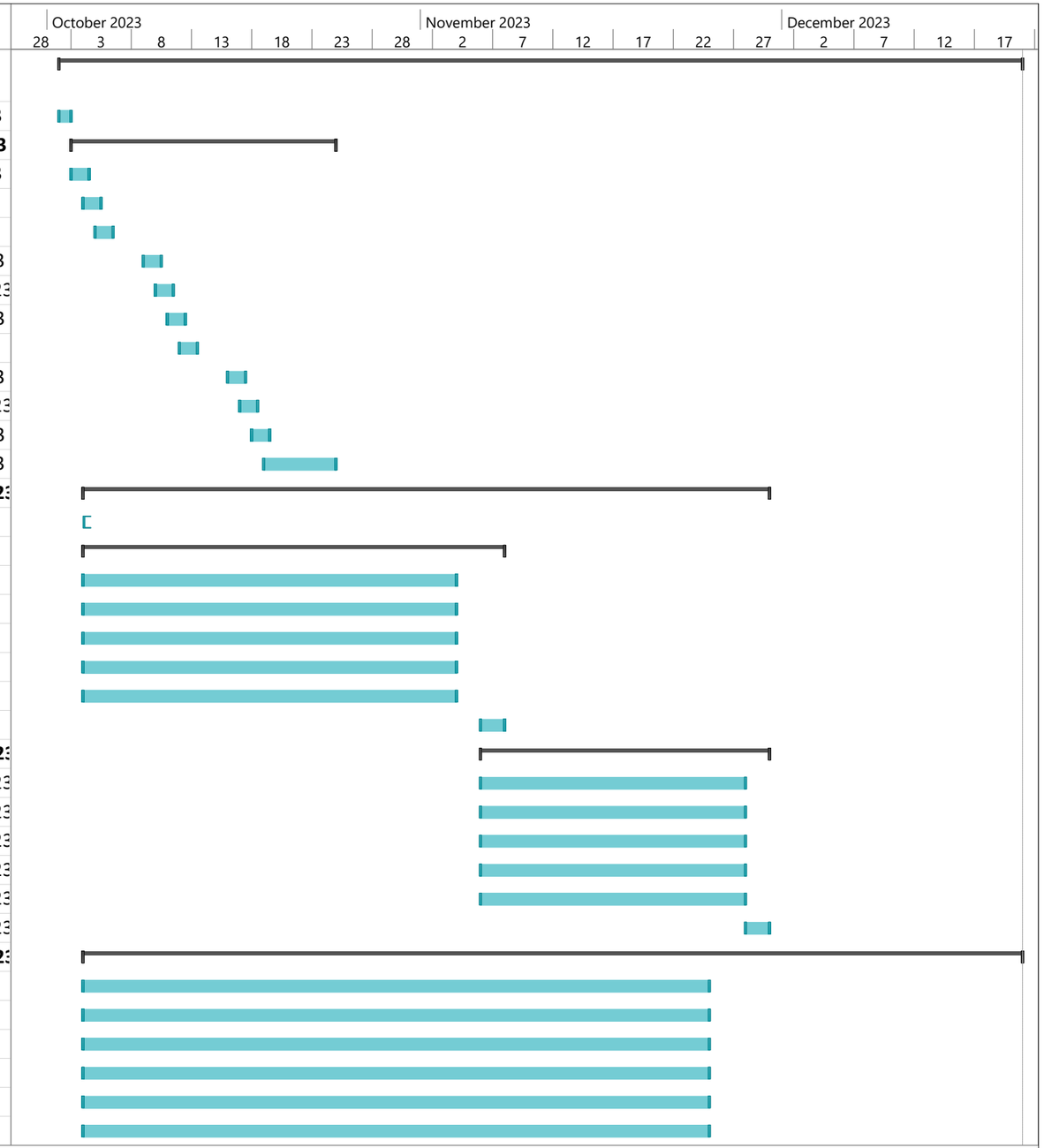
   Commercial General Liability: CONSULTANT shall maintain $1 million minimum commercial general liability insurance coverage on an occurrence basis, including products and completed operations, property damage, bodily injury and personal and advertising injury.

2) Proposed Revision
   We would need the requirements for "products and completed operations" removed as an aspect of our General Liability coverage.

3) Reason for Proposed Revision
   We carry a $2,000,000 General Liability policy but it does not cover "products and completed operations". This requested coverage applies more to companies that manufacture/sell products and/or perform construction or installation at clients' homes or business. Our products are designs/plans/documents/etc. and errors on our part are covered by our Professional Liability policy.

Attachment 1 – Project Schedule

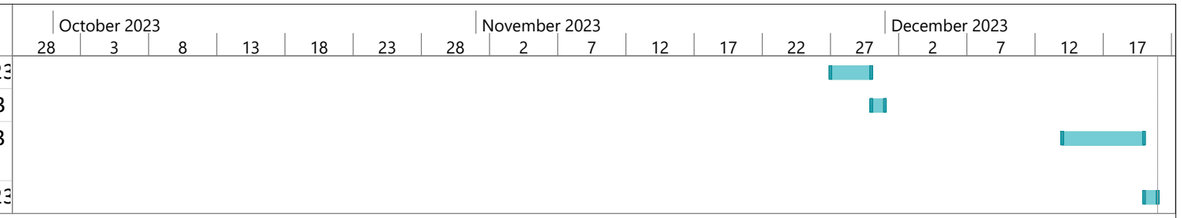
ID	Task Mode	Task Name	Duration	Start	Finish
1		**RCEA's RFP 23-501 for Design and Engineering Services for the Electric Vehicle Charging Network Phase II**	**58 days**	**Mon 10/2/23**	**Wed 12/20/23**
2		Kickoff meeting with client	1 day	Mon 10/2/23	Mon 10/2/23
3		**Site visit - see existing, site measurements for equipment siting**	**16 days**	**Tue 10/3/23**	**Tue 10/24/23**
4		Location 1 survey/visit	1.5 days	Tue 10/3/23	Wed 10/4/23
5		Location 2 survey/visit	1.5 days	Wed 10/4/23	Thu 10/5/23
6		Location 3 survey/visit	1.5 days	Thu 10/5/23	Fri 10/6/23
7		Location 4 survey/visit	1.5 days	Mon 10/9/23	Tue 10/10/23
8		Location 5 survey/visit	1.5 days	Tue 10/10/23	Wed 10/11/23
9		Location 6 survey/visit	1.5 days	Wed 10/11/23	Thu 10/12/23
10		Location 7 survey/visit	1.5 days	Thu 10/12/23	Fri 10/13/23
11		Location 8 survey/visit	1.5 days	Mon 10/16/23	Tue 10/17/23
12		Location 9 survey/visit	1.5 days	Tue 10/17/23	Wed 10/18/23
13		Location 10 survey/visit	1.5 days	Wed 10/18/23	Thu 10/19/23
14		Preliminary site plan, project info, cover sheets	4 days	Thu 10/19/23	Tue 10/24/23
15		**EV Station and Infrastructure Design****	**41 days**	**Wed 10/4/23**	**Wed 11/29/23**
16		Elect. Notes and details		Wed 10/4/23	
17		**2 Port**	**25 days**	**Wed 10/4/23**	**Tue 11/7/23**
18		Panel sizing and equipment specification	23 days	Wed 10/4/23	Fri 11/3/23
19		One-Line	23 days	Wed 10/4/23	Fri 11/3/23
20		Equipment schedule	23 days	Wed 10/4/23	Fri 11/3/23
21		Conductor schedule	23 days	Wed 10/4/23	Fri 11/3/23
22		Technical specifications	23 days	Wed 10/4/23	Fri 11/3/23
23		PM oversite/review comment incorp	2 days	Mon 11/6/23	Tue 11/7/23
24		**4 Port**	**18 days**	**Mon 11/6/23**	**Wed 11/29/23**
25		Panel sizing and equipment specification	16 days	Mon 11/6/23	Mon 11/27/23
26		One-Line	16 days	Mon 11/6/23	Mon 11/27/23
27		Equipment schedule	16 days	Mon 11/6/23	Mon 11/27/23
28		Conductor schedule	16 days	Mon 11/6/23	Mon 11/27/23
29		Technical specifications	16 days	Mon 11/6/23	Mon 11/27/23
30		PM oversite/review comment incorp	2 days	Tue 11/28/23	Wed 11/29/23
31		**Civil layout plan/drawing**	**56 days**	**Wed 10/4/23**	**Wed 12/20/23**
32		Drafting	38 days	Wed 10/4/23	Fri 11/24/23
33		ADA plans and details	38 days	Wed 10/4/23	Fri 11/24/23
34		UG utility plan and details	38 days	Wed 10/4/23	Fri 11/24/23
35		ESCP	38 days	Wed 10/4/23	Fri 11/24/23
36		OT and anchorage calcs	38 days	Wed 10/4/23	Fri 11/24/23
37		Structural details for plans	38 days	Wed 10/4/23	Fri 11/24/23



Project: RCEA - Schedule
Date: Thu 9/21/23

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

ID	Task Mode	Task Name	Duration	Start	Finish
38		PM oversite/review comment incorp	3 days	Mon 11/27/23	Wed 11/29/23
39		Submittal	1 day	Thu 11/30/23	Thu 11/30/23
40		Plancheck responses (2 weeks assumed for jurisdictional Comments)	4 days	Thu 12/14/23	Tue 12/19/23
41		Resubmittal	1 day	Wed 12/20/23	Wed 12/20/23



Project: RCEA - Schedule
Date: Thu 9/21/23

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

Attachment 2 – Resumes

Aaron Bennett, Mechanical & Civil Engineer

Aaron is an experienced civil and mechanical engineer with a keen understanding of maintaining strong client and stakeholder relationships culminating in successful project completions. He has provided his expertise in project planning, design, and field construction support for residential, commercial, and industrial projects. Aaron provides intelligent site infrastructure planning for complex projects and thrives in an environment of strict timelines and budgetary constraints. In a supervisory role, Aaron is responsible for the mechanical engineering department's project management and staff relating to design and support for all aspects of the company's mechanical projects.

EDUCATION
B.S., Mechanical Engineering, University of Idaho

REGISTRATIONS
Licensed Professional Engineer
CA No. 79365 PE
CA No. 38514 ME

AREAS OF EXPERTISE
Project Stakeholder Coordination

Schedule Development & Optimization

Mechanical Design Review & Development

Instrumentation & Equipment Troubleshooting

Rick Mitigation & Hazard Evaluation

Technical & Contract Oversight

TOTAL YEARS EXPERIENCE
17 years

WHITCHURCH ENGINEERING

SELECT PROJECT EXPERIENCE

Eureka Mall Space #33 7,968 sq ft Merchant/Retail Conversion to Office Space
Eureka

Orr Creek Commons
Multi-Story Affordable Housing Development Phases I & II
Ukiah

The Plateau - Multi-Story Housing Project – 23 Senior Units, 20 Supportive Housing Units, 25 Family Townhomes
Fort Bragg

Sunset Apartments - Multi-Story, Multi-Phased, 43-units Phase 1
Eureka

Pine Hill, Multi-Story, Multi-Phased Affordable Housing
Eureka

Mixed Use Multi-Family, Commercial, Retail Building
Eureka

Blue Lake Rancheria – Multi-Story 20,000 sq ft facility
Blue Lake

Eureka Rescue Mission – Women's Shelter Renovation
Eureka

Eureka Natural Foods – Dining Expansion
Utility Relocation
Eureka

New Commercial Structure, 10,000 sq ft including 6,000 outpatient medical facility
Oroville

Blue Lake Rancheria, New 20,000 sq ft facility with 80,000 parking area
Blue Lake

Mendocino Animal Hospital Tenant Improvements - Mechanical
Ukiah

Market Expansion, Tenant Improvements, Addition, Commercial Kitchen, South State Street
Ukiah

Fortuna Fire Department – New 6,380 sq ft Commercial Structure
Fortuna

Fortuna Senior Center – New 7,700 sq ft Building
Fortuna

PG&E, Humboldt Bay Power Plant Building Remodel from laboratory/shipping to office space
Eureka

RCHCD Emergency Electrical Power Systems calculations and design
Ukiah

Scotia Community Services District, Scotia Museum, Remodel/Mechanical and Accessibility Improvements
Scotia

Resident Owned Parks – Electrical Distribution Upgrade
Eureka

Darren Tully, Civil Engineer, Office Manager

In a managerial role, Darren assists project engineers with code compliance, project scheduling, budgeting, permit assistance and contract management for all aspects of residential, commercial, municipal, and industrial projects. Darren has been the designer of record for many large-scale projects, consistently provides buildable solutions and excels in managing contracts and client communications. He also provides Quality Assurance / Quality Control for our branch office. Darren provides construction inspections and project reviews in the field to assess project progress.

EDUCATION
B.S., Environmental Engineering, California State University, Humboldt

REGISTRATIONS
Licensed Professional Engineer
CA No. 73755 PE

AREAS OF EXPERTISE
Project Stakeholder Coordination

Schedule Development & Optimization

Civil Design & Review

Hydrology Studies

Soils Reports

Septic Design

Accessibility Design

Technical & Contract Oversight

TOTAL YEARS EXPERIENCE
19 years

SELECT PROJECT EXPERIENCE

Hampton Inn & Suites Multi-Story, 82-units
Arcata

Campbell Creek Apartments Multi-Story, 60-units
Arcata

Juvenile Hall – Muti-Story Housing
County of Humboldt

Redwood Community Action Agency – Multi-Duplex Reconstruction
McKinleyville

Blue Lake Rancheria – Multi-Story 20,000 sq ft facility
Blue Lake

Eureka Co-Op (Remodel)
Eureka

Humboldt County Big Lagoon Parks Rehabilitation of Day Use and Camping (In progress)
Trinidad

SISU Extracts Hazardous Facility
Eureka

WHITCHURCH ENGINEERING

Eric Allen, Professional Mechanical Engineer

Eric has both professional and practical experience as a mechanical engineer. He has spent most of his career working within the practical mechanical processes. He has also obtained the professional designation. His experience with the functionality of mechanical equipment allows him to reduce client cost through optimization and diagnostic efficiency. Eric specializes in electrical, HVAC, and water systems.

EDUCATION

B.S., Mechanical Engineering
University of Chico

Ashworth College Continuing Education – Heating and Air Conditioning

REGISTRATIONS

Licensed Professional Mechanical Engineer
CA 41001

AREAS OF EXPERTISE

Code Compliance

Schedule Development & Optimization

Mechanical Design

Electrical Design

Energy Systems Design

System Trouble Shooting

Water Systems / Boilers

TOTAL YEARS EXPERIENCE

11 years

SELECT PROJECT EXPERIENCE

Blue Lake Rancheria, New 20,000 sq ft facility with 80,000 parking area
Blue Lake

Mendocino Animal Hospital Tenant Improvements - Mechanical
Ukiah

Orr Creek Commons
Multi-Story Affordable Housing Development Phases I & II
Ukiah

The Plateau - Multi-Story Housing Project – 23 Senior Units, 20 Supportive Housing Units, 25 Family Townhomes
Fort Bragg

Pine Hill, Multi-Story, Multi-Phased Affordable Housing
Eureka

Mixed Use Multi-Family, Commercial, Retail Building
Eureka

Moorpark, Multi-Family Development 11-Structures including community building and covered parking
Moorpark

New Commercial Structure, 10,000 sq ft including 6,000 outpatient medical facility
Oroville

Market Expansion, Tenant Improvements, Addition, Commercial Kitchen, South State Street
Ukiah

PG&E, Humboldt Bay Power Plant Building Remodel from laboratory/shipping to office space
Eureka

Scotia Community Services District, Scotia Museum, Remodel/Mechanical and Accessibility Improvements
Scotia

Resident Owned Parks – Electrical Distribution Upgrade
Eureka

Flynn Manetta Tomlinson, Design Engineer

Since starting with Whitchurch Engineering, Inc. Flynn has moved from an ~~engineer-in-training to leading the design, permitting and inspection~~ process for a number of projects. Flynn's attention to detail, organization, excellent communication skills has been allow him to provide valuable support services with public jurisdictions and clientele. Additionally, Mr. Tomlinson has managed a wide variety of development projects including nuclear, commercial buildings, and subdivisions.
Flynn designs and assists our junior engineers with inspections, surveying, grading and detailing for accessibility projects.

EDUCATION
B.S., Environmental Resources Engineering, Humboldt State University

REGISTRATIONS
CA Engineer-In-Training
CA No. 162781

American Concrete Institute (ACI) – Concrete Field-Testing Technician – Grade 1

AREAS OF EXPERTISE
Permit Assistance

Building Design

Water Resources Planning/ Management

Project Management

Stormwater Mitigation

Accessibility Design

QSP Inspector

Surveying

TOTAL YEARS EXPERIENCE
5 years

SELECT PROJECT EXPERIENCE

Orr Creek Commons
Multi-Story Affordable Housing Development Phases I & II
Ukiah

Multi-Story Housing Project – 2,3 and 4-story Structures, Community Buildings and Covered Parking
Moorpark, CA

Sunset Apartments - Multi-Story, Multi-Phased, 43-units Phase 1 Eureka

Mixed Use Multi-Family, Commercial, Retail Building
Eureka

Kuda– Multi-Story Cannabis Project 10,000 sq ft facility
Eureka

Smith Lane Subdivision for ACGC
Fortuna

SWPPP QSP Inspections
Various projects throughout Humboldt

Blue Lake Rancheria, New 20,000 sq ft facility with 80,000 parking area
Blue Lake

Emerald Family Farms Cannabis
Permitting and design for structures, zoning, change of use
Willow Creek

Market Expansion, Tenant Improvements, Addition, Commercial Kitchen, South State Street
Ukiah

Fortuna Senior Center – New 7,700 sq ft Building
Fortuna

Frito Lay Warehouse
Design and permitting
McKinleyville

A Street Cannabis Building Upgrades
Eureka

WHITCHURCH ENGINEERING

LEONARD COX, Licensed Architect

Leonard has extensive experience with commercial, educational, institutional and residential projects. He provides schematic design, construction drawings, specifications writing, permit approval support, bid processing and construction administration. Leonard understands the importance of communication and seeks to design buildable solutions within a clients' budget and schedule. He is proficient at preliminary site planning, production of final site plan and elevation drawings, and obtaining final Division of State Architect approval for educational facility projects.

EDUCATION

B.S., Environmental Design, University of Washington, College of Architecture and Urban Planning

Graduate Program School of Architecture, University of Minnesota

REGISTRATIONS

Licensed Architect
CA No. 26300

AREAS OF EXPERTISE

AutoCAD

Design for ADA Compliance

3D Modeling

Construction Drawing Set Production

TOTAL YEARS EXPERIENCE

26 years, 5 with firm

WHITCHURCH ENGINEERING

SELECT PROJECT EXPERIENCE

Redwood Community Action Agency – Multi-Duplex Reconstruction
McKinleyville

Stanwood A. Murphy Elementary School - Modernization
Scotia

Humboldt County Jail Phase II – 7-story housing for approx. 200 inmates
Eureka

Misty Village Apartment – 20 Units
McKinleyville

Jefferson Elementary School – Adult Education Facility Remodel
Eureka

Renovation/Conversion, Church to Medical Clinic
Eureka

Freshwater Elementary School – Portable Classroom Projects
Eureka

Southern Trinity Health Clinic – Commercial to Clinic
Scotia

Fortuna High School – Science Building Modernization
Fortuna

Eureka High School – Auto Shop Building Reroofing Project
Eureka

Grant Elementary School – Portable Classroom Projects
Eureka

Captain John Continuation High School – Portable Classroom Project
Hoopa

Chad Pasquini, Certified Building Official

Chad has spent his entire career in the building industry. His most recent 19-years has been as a Certified Building Official, Building Inspector, Plans Examiner, and Code Enforcement Officer ensuring the health and safety of the public. His experience encompasses a full range of development review from residential additions through large commercial projects. This includes working with residents and their agents to resolve and remediate code violations. He ensures compliance with all applicable building and energy codes, coordinates and schedules with permitting agencies and helps to expedite plan issuance. Chad aids architects, contractors, designers, engineers, and home owners to achieve their goals in completing building projects from the ground up such as new single-family residences, residential remodels and additions, land use permits, commercial tenant improvements, new commercial construction, and hotels, apartments, and multi-story buildings.

EDUCATION
Butte College, CA
Building Inspection Technology Certification

REGISTRATIONS
I.C.C. Certified Building Inspector, 5116805-10

I.A.P.M.O. Certified Mechanical Inspector, 090648

I.A.P.M.O. Certified Plumbing Inspector, 098501

I.C.C. Certified Electrical Inspector, 5116805-E1

I.C.C. Certified Building Plans Examiner, 5116805-B3

C.A.C.E.O. Certified Code Enforcement Officer 1

I.C.C. Certified Building Official, 5116805

TOTAL YEARS EXPERIENCE
19 years

WHITCHURCH ENGINEERING

SELECT PROJECT EXPERIENCE

Building Official/Plans Examiner
City of Arcata – 2003 to 2016

Chief Building Official
Humboldt County – 2017 to 2019

PG&E, Humboldt Bay Power Plant Building Remodel from laboratory/shipping to office space
Eureka

Frito Lay New 7,283 sq ft Distribution Center including Warehouse, Offices, & Conference Room
Blue Lake

County of Humboldt – Accessibility Design and Permitting Assistance – County Administrative Offices
Eureka

County of Humboldt – Accessibility Design and Permitting Assistance – Humboldt County Airport
McKinleyville

Market Expansion, Tenant Improvements, Addition, Commercial Kitchen, South State Street
Ukiah

Yurok Tribe Emergency Operations Center, 18,652 sq ft community shelter/operations center - 3rd Party Inspections
Klamath

Kreations AutoBody – Commercial Remodel, Addition, Tenant Improvements 13,026 sq ft
Fortuna

Fortuna Senior Center – New 7,700 sq ft Building
Fortuna

Scotia Community Services District, Scotia Museum, Remodel and Accessibility Improvements
Scotia

Mixed Use, Multi-Story, Multi-Family, Commercial, Retail Building
Inspector of Record
Eureka

County of Humboldt – Accessibility Design and Permitting Assistance – Clam Beach
McKinleyville

Mixed Use, Multi-Story, Multi-Family, Commercial, Retail Building
Inspector of Record
Eureka

Phyllis Rex Samoa Coast Townhomes – Multi-Story - 80-unit affordable housing complex
Inspector of Record
Samoa

Strombeck Apartment Complex – Multi-Story – 60 units
Inspector or Record
Arcata

Danco Senior Housing Development – Multi-Story
Inspector of Record
Arcata

Zach Johnson, Professional Engineer

Since starting with Whitchurch Engineering, Inc. Zach has moved from an engineer-in-training to leading the permitting and inspection process for a number of major projects. Zach's attention to detail, organization, excellent communication skills and knowledge of Civil Engineering allow him to provide valuable support services with public jurisdictions and clientele. Additionally, Mr. Johnson has managed a wide variety of development projects including commercial buildings, fueling stations and subdivisions. Zach designs and assists our other designers with grading and detailing for accessibility and has worked with CaSP specialists to ensure the ADA code is met.

EDUCATION

B.S., Environmental Resources Engineering, Humboldt State University

REGISTRATIONS

Licensed Professional Engineer
CA No. 92416 PE

American Concrete Institute (ACI) – Concrete Field-Testing Technician – Grade 1

AREAS OF EXPERTISE

Renewable Energy Systems

Solar Thermal Engineering

Water Resources Planning/Management

Low Impact Development (LID)

Stormwater Mitigation

Accessibility Design

TOTAL YEARS EXPERIENCE

9 years

SELECT PROJECT EXPERIENCE

Arcata Bay Crossing 30-Apartment Structure for Humboldt Bay Housing Development Corporation
Arcata

Orr Creek Commons Multi-Story Affordable Housing Development Phases I & II
Ukiah

Multi-Story Housing Project – 2,3 and 4-story Structures, Community Buildings and Covered Parking
Moorpark, CA

Sunset Apartments - Multi-Story, Multi-Phased, 43-units Phase 1
Eureka

Mixed Use Multi-Family, Commercial, Retail Building
Eureka

Blue Lake Rancheria – Multi-Story 20,000 sq ft facility
Blue Lake

Renner Petroleum-New Fueling Station
Cloverdale, CA

Proposed Fueling Station Carwash, South State Street
Ukiah

Humboldt Petroleum Arcata Station
Arcata

Blue Lake Rancheria, New 20,000 sq ft facility with 80,000 parking area
Blue Lake

Mendocino Animal Hospital Tenant Improvements - Mechanical
Ukiah

Market Expansion, Tenant Improvements, Addition, Commercial Kitchen, South State Street
Ukiah

Proposed Tire Shop, South State Street
Ukiah

Fortuna Senior Center – New 7,700 sq ft Building
Fortuna

PG&E, Humboldt Bay Power Plant Building Remodel from laboratory/shipping to office space
Eureka

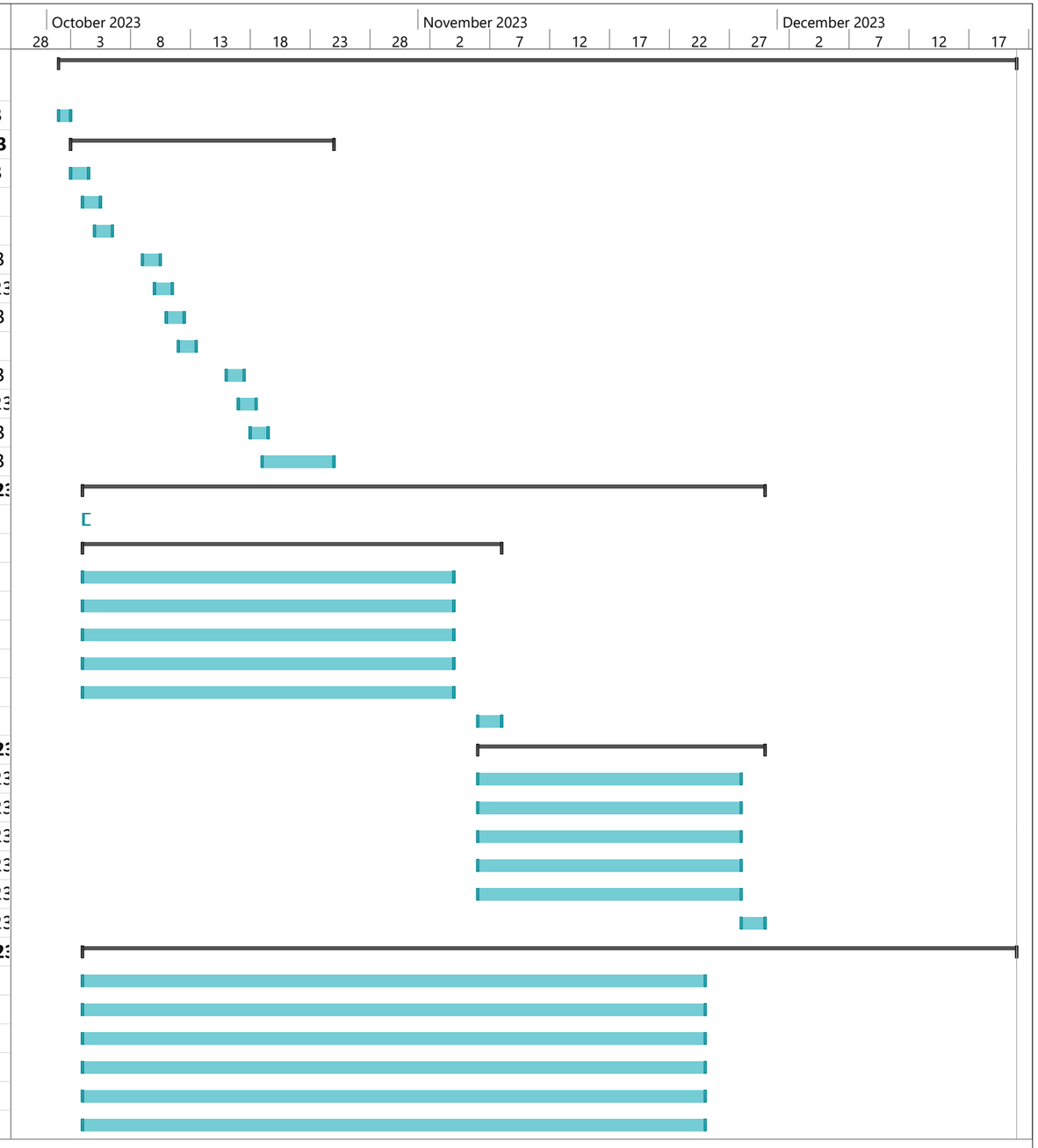
RCHCD Emergency Electrical Power Systems calculations and design
Ukiah

WHITCHURCH ENGINEERING

Attachment 3 – Detailed Project Cost Breakdown

Employees	TLW	DPT, JTL	ARB	BTF	PMG, TOR, BLW, DCL	ETA, ZDJ	FMT, NTN, RAO	JTM, MJB	RCP	LWC	GKK	NSG	CEM, RJM, NRP		
Cost Range	$225	$200	$175	$175	$160	$140	$110	$90	$100	$100	$90	$90	$75	$300	
Title	**Principal Engineer**	**Engineering Manager**	**Supervising Engineer**	**Senior Electrical Engineer**	**Senior Engineer**	**Associate Engineer**	**Assistant Engineer**	**Project Engineer**	**Permit Specialist**	**Architect**	**Drafters**	**Engineering Technician**	**Administration**	**Survey Equipment**	
Hourly Cost	$ 225	$ 200	$ 175	$ 175	$ 160	$ 140	$ 110	$ 90	$ 100	$ 100	$ 90	$ 90	$ 75	$ 300	
Contract Line Item:															
Proposal time		6	6												$2,250
Admin time													8		$600
															$2,850
Discovery/Site review															
Kickoff meeting with client			2			2		3							$900
															$900
Electrical design															
Common to All															
Elect. Notes and details						8									$1,120
(2) port locations - 4 total (Common Items)															-
Load Calcs						2		8							$1,000
One-Line and grounding diagrams								2							$180
equipment specification								2							$180
conduit and conductor schedule						1		2							$320
Equipment specificaton						4		4							$920
Overcurrent Protection design								2							$180
drafting								4							$360
															$4,260
(4) port locations - 6 total (Common Items)															
Load Calcs						2		8							$1,000
One-Line and grounding diagrams								2							$180
equipment specification								2							$180
conduit and conductor schedule						1		2							$320
Equipment specificaton						4									$560
Overcurrent Protection design								2							$180
drafting								4							$360
PM oversite/review			2	8		1									$1,890
															$4,670
Civil Supporting Activities															
survey and site visit						8		8							$1,840
Survey Data Processing								8							$720
preliminary layout plan			2					2			4				$890
ADA pathway layout, details, and notes						2		8							$1,000
UG utility plan								4							$360
ESCP								2							$180
OT and anchorage calcs								2							$180
struct. Details								4							$360
drafting								2			6				$720
PM oversite/review		1	1												$375
Jursidictional Plan Check						4									$616
Above x10 separate locations															**$72,410**
Other															
Project Cost Estimate						12									$1,680
Technical Specifications						16									$2,240
Bi-weekly updates and as needed meetings			4			4									$1,260
															$5,180
Construction support and RFI responses															
Bid Assistance Submittal Review						8									$1,120
RFI responses						12									$1,680
Construction Assistance						12									$1,680
															$4,480
Mileage															$0
hour sum	0	7	17	8	0	103	0	87	0	0	10	0	8	0	240
hours cost	$ -	$ 1,400	$ 2,975	$ 1,400	$ -	$ 14,420	$ -	$ 7,830	$ -	$ -	$ 900	$ -	$ 600	$ -	
cost & mileage sum	$ 90,080														
plus 10% cont (Most work)	$99,088.00														

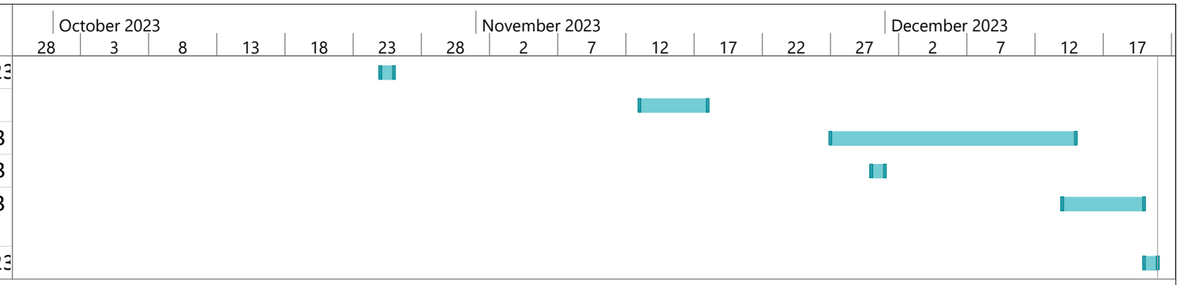
ID	Task Mode	Task Name	Duration	Start	Finish
1		**RCEA's RFP 23-501 for Design and Engineering Services for the Electric Vehicle Charging Network Phase II**	**58 days**	**Mon 10/2/23**	**Wed 12/20/23**
2		Kickoff meeting with client	1 day	Mon 10/2/23	Mon 10/2/23
3		**Site visit - see existing, site measurements for equipment siting**	**16 days**	**Tue 10/3/23**	**Tue 10/24/23**
4		Location 1 survey/visit	1.5 days	Tue 10/3/23	Wed 10/4/23
5		Location 2 survey/visit	1.5 days	Wed 10/4/23	Thu 10/5/23
6		Location 3 survey/visit	1.5 days	Thu 10/5/23	Fri 10/6/23
7		Location 4 survey/visit	1.5 days	Mon 10/9/23	Tue 10/10/23
8		Location 5 survey/visit	1.5 days	Tue 10/10/23	Wed 10/11/23
9		Location 6 survey/visit	1.5 days	Wed 10/11/23	Thu 10/12/23
10		Location 7 survey/visit	1.5 days	Thu 10/12/23	Fri 10/13/23
11		Location 8 survey/visit	1.5 days	Mon 10/16/23	Tue 10/17/23
12		Location 9 survey/visit	1.5 days	Tue 10/17/23	Wed 10/18/23
13		Location 10 survey/visit	1.5 days	Wed 10/18/23	Thu 10/19/23
14		Preliminary site plan, project info, cover sheets	4 days	Thu 10/19/23	Tue 10/24/23
15		**EV Station and Infrastructure Design****	**41 days**	**Wed 10/4/23**	**Wed 11/29/23**
16		Elect. Notes and details		Wed 10/4/23	
17		**2 Port**	**25 days**	**Wed 10/4/23**	**Tue 11/7/23**
18		Panel sizing and equipment specification	23 days	Wed 10/4/23	Fri 11/3/23
19		One-Line	23 days	Wed 10/4/23	Fri 11/3/23
20		Equipment schedule	23 days	Wed 10/4/23	Fri 11/3/23
21		Conductor schedule	23 days	Wed 10/4/23	Fri 11/3/23
22		Technical specifications	23 days	Wed 10/4/23	Fri 11/3/23
23		PM oversite/review comment incorp	2 days	Mon 11/6/23	Tue 11/7/23
24		**4 Port**	**18 days**	**Mon 11/6/23**	**Wed 11/29/23**
25		Panel sizing and equipment specification	16 days	Mon 11/6/23	Mon 11/27/23
26		One-Line	16 days	Mon 11/6/23	Mon 11/27/23
27		Equipment schedule	16 days	Mon 11/6/23	Mon 11/27/23
28		Conductor schedule	16 days	Mon 11/6/23	Mon 11/27/23
29		Technical specifications	16 days	Mon 11/6/23	Mon 11/27/23
30		PM oversite/review comment incorp	2 days	Tue 11/28/23	Wed 11/29/23
31		**Civil layout plan/drawing**	**56 days**	**Wed 10/4/23**	**Wed 12/20/23**
32		Drafting	38 days	Wed 10/4/23	Fri 11/24/23
33		ADA plans and details	38 days	Wed 10/4/23	Fri 11/24/23
34		UG utility plan and details	38 days	Wed 10/4/23	Fri 11/24/23
35		ESCP	38 days	Wed 10/4/23	Fri 11/24/23
36		OT and anchorage calcs	38 days	Wed 10/4/23	Fri 11/24/23
37		Structural details for plans	38 days	Wed 10/4/23	Fri 11/24/23



Project: RCEA - Schedule
Date: Mon 9/25/23

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

ID	Task Mode	Task Name	Duration	Start	Finish
38		30% Plan review with client	1 day	Wed 10/25/23	Wed 10/25/23
39		65% Plan submittal for client review and comment	5 days	Mon 11/13/23	Fri 11/17/23
40		PM oversite/review comment incorporation	14 days	Mon 11/27/23	Thu 12/14/23
41		95% Submittal for client review and jurisdictional plancheck	1 day	Thu 11/30/23	Thu 11/30/23
42		Plancheck responses and plan updates(2 weeks assumed for jurisdictional Comments)	4 days	Thu 12/14/23	Tue 12/19/23
43		100% Project Submittal	1 day	Wed 12/20/23	Wed 12/20/23



Project: RCEA - Schedule
Date: Mon 9/25/23

Task	Project Summary	Manual Task	Start-only	Deadline			
Split	Inactive Task	Duration-only	Finish-only	Progress			
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress			
Summary	Inactive Summary	Manual Summary	External Milestone				

REDWOOD COAST Energy Authority

STAFF REPORT
Agenda Item # 9.1

AGENDA DATE:	September 28, 2023
TO:	Board of Directors
PREPARED BY:	Eileen Verbeck, Deputy Executive Director
SUBJECT:	Approval of Resolution No 2023-07, Accepting Real Property Interests in Assessor's Parcel Number 001-131-007, 805 3rd Street, Eureka CA.

BACKGROUND

Prior to May 2023, Redwood Coast Energy Authority operated out of a single leased facility at 633 Third Street in Eureka (6,202 SF). Staff additions have caused RCEA to exceed the capacity of this office space (e.g. the maximum allowable occupancy of the facility's largest room is not sufficient to allow for a full staff meeting with all employees in attendance). In May of 2023, RCEA rented a second office location at 917 3rd Street to provide enough office space for existing staff.

Since 2020, RCEA has been working toward acquisition of an office building that would provide enough office space for existing staff, provide an on-site location for public meetings, and a space open to the public for educational and outreach material. In 2020 RCEA identified the need for a minimum of 10,000 SF for office space and public meetings. Since that time RCEA's staffing has increased and it is likely that we will need a minimum of 15,000 SF to meet existing and future needs. RCEA has been unsuccessful in locating an existing building that meets the needs of the organization. Per Board direction, staff began looking for vacant lots that could be purchased to develop a building for RCEA's needs.

RCEA staff located Assessor's Parcel Number 001-131-007, 805 3rd Street, which is a vacant lot situated at the northeast corner of Third and I Streets. The lot is 6,600 square feet and located in the City of Eureka's Office and Multi-Family Residential Zone (OR). The lot is in the City of Eureka's Parking Assessment District, which does not require parking for non-residential uses. Per Eureka Municipal Code Sec. 10-5.201, there are no setbacks in the OR zone district. Maximum height of buildings in this zone is 100 feet tall or a limit of 250 percent maximum floor area (the total amount of gross floor area a building contains divided by the area of the lot). For example, if the footprint of the building is 5,500 SF, the building could be three stories tall for a total of 16,500 SF.

The RCEA Board of Director's Building Relocation ad hoc subcommittee authorized the Executive Director to enter negotiations for the subject parcel in June 2023.

SUMMARY

On June 15, 2023, the Executive Director entered Real Property negotiations for the subject parcel. RCEA received a Statement of Value for an adjacent vacant lot at 2nd and I Street in May of 2023. The sellers are amenable to the purchase price based on the statement of value received for 2nd and I Street (adjusted for lot size). On June 22, 2023, the RCEA Board of Directors authorized the Executive Director to enter into a Purchase and Sale Agreement, which was executed on August 21, 2023.

FINANCIAL IMPACT

The FY 2023-2024 budget included funding for the acquisition of property. The proposed $285,000 purchase price and the buyer's portion of escrow fees (100%) have been included in the budget.

Staff will come back to the Board with decisions on the development of the property and any Request for Qualifications and Request for Proposals that will be issued for the planning and development of the site.

STAFF RECOMMENDATION

1. Approval of Resolution No 2023-07, Accepting Real Property Interests in Assessor's Parcel Number 001-131-007, 805 3rd Street, Eureka CA.
2. Approve the expenditure of $285,000 plus closing fees and costs estimated to be less than $5,000 for the acquisition of real property at 805 3rd Street, Eureka, CA, APN 001-131-007.

ATTACHMENTS

1. Resolution 2023- 07, A Resolution of the Board of directors of the Redwood Coast Energy Authority Accepting a Fee Title Interest in APN 001-131-007 from Greg Casagrande and Lisa Casagrande, Trustees of the Casagrande Revocable Trust UAD April 5, 2019, and Darcy Casagrande.

RESOLUTION NO. 2023-7
A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE REDWOOD COAST ENERGY AUTHORITY
ACCEPTING A FEE TITLE INTEREST IN APN 001-131-007
FROM GREG CASAGRANDE AND LISA CASAGRANDE, TRUSTEES OF THE
CASAGRANDE REVOCABLE TRUST UAD APRIL 5, 2019,
AND DARCY CASAGRANDE

WHEREAS, the Redwood Coast Energy Authority (RCEA), as Purchaser, and Greg Casagrande and Lisa Casagrande, Trustees of the Casagrande Revocable Trust uad April 5, 2019, and Darcy Casagrande, as Seller, entered into a Purchase and Sale Agreement dated August 21, 2023, for the acquisition of real property located at 805 3rd Street, Eureka, CA, identified as Assessor's Parcel No. 001-131-007; and

WHEREAS, said real property is more particularly described in Exhibit A, attached hereto (the "Property"); and

WHEREAS, RCEA has completed a due diligence investigation of the Property and the parties now seek to close escrow and convey the Property to RCEA.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Redwood Coast Energy Authority as follows:

1. The Board of Directors of the Redwood Coast Energy Authority hereby accepts the conveyance by Greg Casagrande and Lisa Casagrande, Trustees of the Casagrande Revocable Trust uad April 5, 2019, and Darcy Casagrande, of a fee title interest in Assessor's Parcel Number 001-131-007, located at 805 3rd Street and more particularly described in Exhibit A, attached hereto and incorporated herein.

2. The Executive Director is authorized and directed to execute a Certificate of Acceptance evidencing this Resolution, and all other documents and instruments as necessary to implement this Resolution, close escrow on the Property, and complete the Property transaction.

This Resolution shall be effective upon its adoption.

Adopted this ____ day of _____, 2023

ATTEST:

_____ _____
Sheri Woo, Chair of the Board Lori Taketa, Clerk of the Board

Date:_____ Date: _____

CLERK'S CERTIFICATE

I hereby certify that the foregoing is a true and correct copy of Resolution No. 2023-7 passed and adopted at a regular meeting of the Redwood Coast Energy Authority, County of Humboldt, State of California, held on the ___ day of _____, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

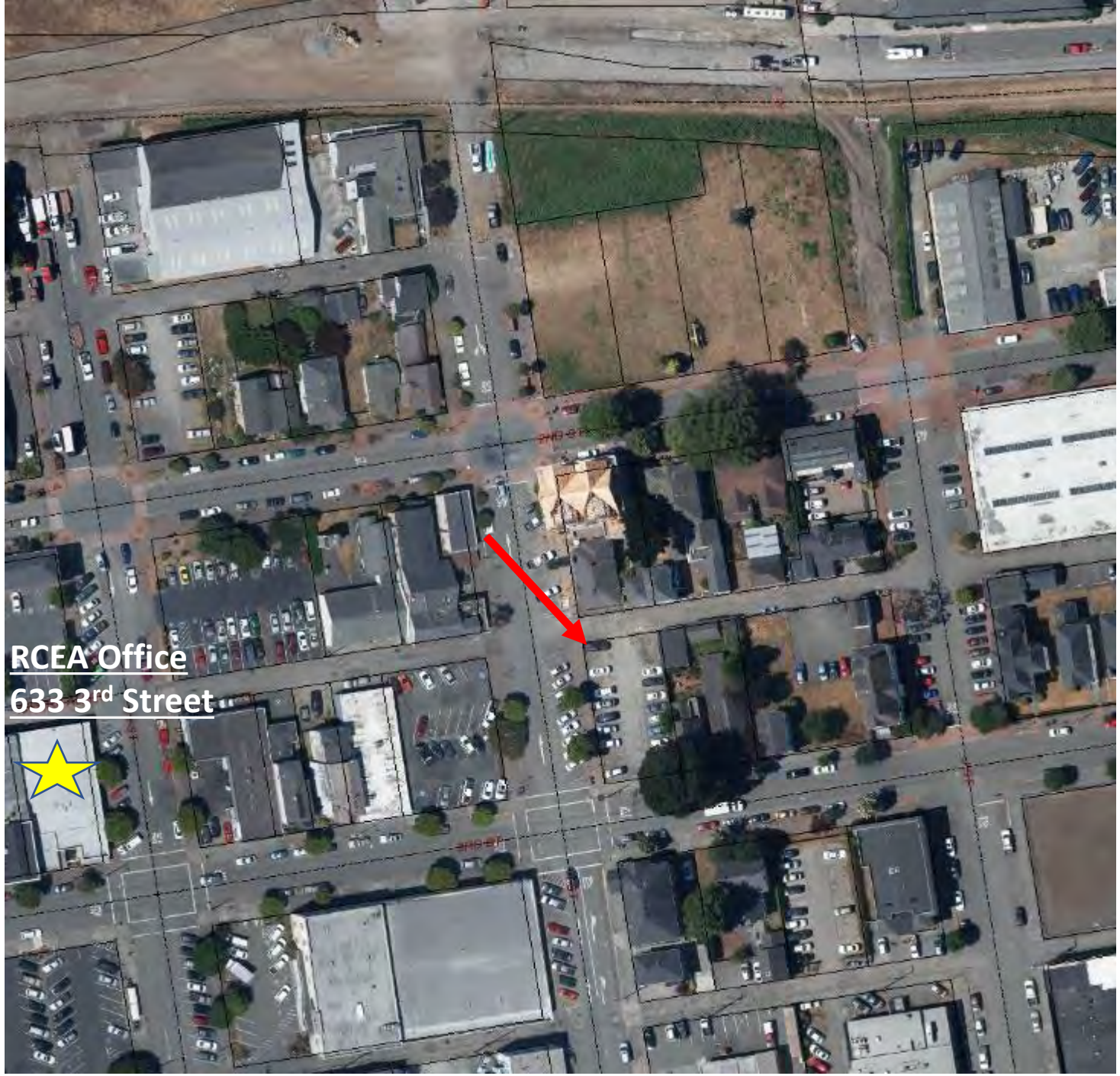
_____
Clerk of the Board, Redwood Coast Energy Authority

EXHIBIT "A"
Legal Description

APN: 001-131-007

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF EUREKA, COUNTY OF HUMBOLDT, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

Lot 14 in Block 18 of the City of Eureka according to the Map thereof on file in the Recorder's Office of Humboldt County, California, in Book 1 of Maps, Page 16, said Lot being 60 feet by 110 feet in size and situated at the Northeast corner of Third and I Streets.


RCEA Office
633 3rd Street

RCEA Board of Directors Meeting
September 28, 2023

RCEA Board of Directors Meeting
September 28, 2023

- 6,600 SF vacant lot
- Zoned Office and Multi Family Residential (OR)
- No Parking Requirements
- No Setbacks
- $285,000 Purchase Price

REDWOOD COAST EnergyAuthority

STAFF REPORT
Agenda Item # 10.1

AGENDA DATE:	September 28, 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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