

From: [David O'Neill](#)
To: [Public Comment](#)
Cc: [Diane O'Neill](#)
Subject: [EXTERNAL]Proposal to Deliver Renewable Energy
Date: Wednesday, May 27, 2020 6:35:30 PM
Attachments: [RedwoodCoastRCEAProposal0420.wpd.pdf](#)

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Public Comment for Consideration by the RCEA Board

On April 13, 2020, Redwood Coast Power sent a proposal to Mathew Marshall, the Executive Director of the RCEA, to supply renewable energy to the RCEA. In light of the fact that the Fairhaven Plant is no longer able to supply power to the RCEA under its PPA, Redwood Coast Power thought that the RCEA would be interested in contracting with Redwood Coast Power to allow the RCEA to maintain the level of power it is purchasing from local biomass-energy plants. Redwood Coast Power copied all of the members of the RCEA Board as well as the members of the Humboldt County Board on the proposal, but to date, has not received a response from the RCEA. A copy of the proposal is attached to this e-mail.

Redwood Coast is requesting that the RCEA Board instruct its Executive Director and his staff to contact the representatives of Redwood Coast Power to determine if a mutually-beneficial, power- purchase agreement can be negotiated between the parties. Barring such action, Redwood Coast Power would appreciate an explanation as to why such negotiations will not take place.

David S. O'Neill

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David S. O'Neill
April 11, 2020

Mr. Matthew Marshall
Executive Director
Redwood Coast Energy Authority
633 3rd St.
Eureka, CA 95501

re: Proposal to Supply Renewable Energy from Redwood Coast Power and Carbon Sequestration Project

Dear Mr. Marshall:

Please accept this letter as a Proposal from Redwood Coast Power LLC (RCP) to supply 10 to 11 MW of renewable, base-load power on a continuous basis to the Redwood Coast Energy Authority (RCEA) for an extended period of years. The power being offered under this proposal is renewable, biomass energy produced from a wood-fired biomass steam generation plant utilizing forestry waste as a fuel supply. It will not only result in a reliable supply of base-load power to RCEA's customers, it will also support employment and economic development within RCEA's service area consistent with the stated objectives of RCEA as a community choice authority.

On information and belief, RCP understands that the RCEA is presently not receiving the quantities of biomass energy it has contracted for and had set as an objective to assist the biomass plants in the area. Even when the biomass energy was received, it was not delivered on a reliable, non-interruptible, base-load basis that would maximize its value to the RCEA. RCP is in a position to fulfill RCEA's need for base-load, biomass energy that supports the community at a reasonable price for a number of years.

The power will be generated at the Redwood Coast Power Biomass Power and Carbon Sequestration Plant located at 200 Taylor Way in Blue Lake CA. The facility is a biomass-to-energy plant utilizing a single Zurn traveling grate stoker boiler equipped with a biomass dryer, fuel metering system, propane start-up burner, and an electrostatic precipitator for particulate control. The 885 psia and 825F steam produced in the boiler produces up to 13.8 MW of power (11.0 MW net to line) from a Turbodyne steam turbine coupled to an Electrical Machine (EM) generator. The facility provides for on-site storage and handling of the biomass fuel. The system

also includes a truck scale, single truck dump, out-feed conveyors, and a fuel reclaim system.

The plant was built in 1984 and operated until 1999 when it was moth-balled because of low-profit margins. The plant was refurbished and restarted in 2010 and operated for another 5 years until market conditions again caused the plant to shut down. The present owner (RCP with LandGas Technology as it's Manager) took control of the operations. Since taking control of the operation, RCP has reached agreements with regulators to ensure continuous operations within strict operating and emission requirements. The new owner has invested heavily in updating the plant. Among the repairs and improvements are:

1. The process control system has been modernized
2. The electro-static precipitator has been rebuilt
3. The cooling tower capacity has been increased
4. The fuel dryer has been repaired
5. The boiler feed grates has been repaired
6. The fuel supply had been improved and a reliable fuel supply has been established for meeting the SB 859 requirements of using wood from Tier 1 and Tier 2 hazardous forests
7. The rotor in the turbine has been remachined
8. The boiler and super heater tubes have been replaced and cleaned and
9. Changes have been made to increase the quantity and quality of char generated and to facilitate the collection and shipping of char

The plant is operational and fully permitted. It is presently not operating but can be returned to operation within three months of finalizing a workable, power-purchase agreement and can deliver 10.0 to 11.0 MW of power to line on an uninterrupted basis. Additionally, upon restart, the plant will modify it's operations to maximize the environmental benefit of the system. The plant will be operated to maximize the production of high-quality char. As a result of the char production, carbon from the carbon-base wood fuel will be sequestered. This carbon capture will consequently reduce green house gases and global warming. LandGas Technology LLC is a leader in the field of char production and beneficial use and is offering to make the city of Blue Lake and the RCEA participants in this pioneering effort.

In operation, the plant will achieve among the lowest emission rates in the state of California. Our permit requires emissions of less than:

- a) NOx emissions of 0.12 lb/MMBtu on a 24-hour Rolling Average basis and 0.10 lb/MMBtu on an annual Rolling Average Basis;
- b) CO emissions of 0.40 lb/MMBtu on a 24-hour Rolling Average basis; and
- c) PM10 emissions of 0.02 lb/MMBtu on a 3-hour average basis.

These standards are considerably below the emissions that are being achieved by the RCEA's present biomass energy suppliers.

By creating a market for the power produced by RCP, the RCEA will not only be ensuring its customers base-load power, it will also be benefitting the area in other ways including:

1. Creating local jobs including jobs for the employees recently laid off at the DG Fairhaven Biomass Plant
2. Supporting local saw mills and foresters by creating a market for their wood waste
3. Allowing for proper forest management by allowing over crowded forests to be properly thinned and harvested
4. Preventing forest fires that result from a lack of forest management
5. Payment of rent, permit fees, taxes and utilities to local units of government
6. Carbon sequestration and the creation of a source of char to local industrial users and farmers that is presently in short supply
7. Increase activity for businesses in the city of Blue Lake and surrounding communities.

Another potential benefit of Proposal is the fact that the facility is located in a high service area for the RCEA. As a result, it may be possible for RCEA to supply power during periods when PG&E curtails transmission. Last summer, many RCEA customers in Blue Lake had no power for extended periods. The power that was generated came from high emission sources like diesel generators. With generation from a plant inside a high service area, it should be possible to continue service during future outage periods.

While RCP is presenting this Proposal, it is doing so as an invitation to negotiate and not as a request for specific terms. The parties will need to determine terms that are acceptable to both parties while weighing the additional benefits of the Project. RCP will be seeking a multiple year agreement. This requirement is essential both because RCP will need to spend money to bring the plant into operation and because RCP will have to make commitments to its new employees and suppliers. Many suppliers will need to cancel existing arrangements to supply RCP and will not be willing to do so without a long-term commitment from RCP. Further, RCP is not willing to ask potential employers to leave their present positions without being able to represent to these people that we offering them a long-term opportunity.

The price and the attributes of the power transferred under the power purchase agreement also needs to be agreed to. The price should be comparable to the price the RCEA is presently paying for biomass power. Considering the potential benefits of this reliable power to RCEA, a price in this range should be negotiable.

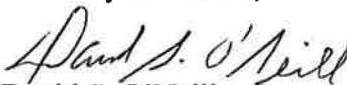
RCEA will receive environmental attributes associated with the Project and its output, including but not limited to, renewable energy credits and air emission credits or offsets (e.g., Greenhouse Gas Credits), and all associated Environmental and/or Green Attributes, excluding any federal or state tax credits, incentives, or grants associated with the production of electricity. The Project and its output qualify for Portfolio Content Category 1 under the California Public Resources Code (CPRC), as this plant is an in-state California resource. Additionally, the Project will comply with the CPRC and any future interpretations of relevant statutes by the California Energy Commission. As such, the projects will qualify as Category One Bundled Green Energy under the California Renewable Portfolio Standard (RPS) and qualify for the associated Renewable Energy Certificates ("REC").

The amount of power available from this Project should be sufficient to replace the lost power from the DG Fairhaven contract. The plant has a rated capacity of 118,000 pounds of steam per hour (185 million Btu/hr heat input) from boilers manufactured by Zurn Corporation. The name-plate capacity of the turbine is 13.80 MW. The gross generating maximum capacity will be 12.6 MW. The parasitic load has historically been 1.5 MW.

Redwood Coast is proposing to sell 10.5 MW of the capacity. The total annual production under this Proposal is expected to 92,000 MWh/year. Assuming an 87.5 % run time, the annual supply of power should be 80,000 MWh. This Project involves base-load power and does **not** have seasonal variances. The project's "down time" for annual maintenance is estimated at 10-14 days per year and we should be able to schedule most planned maintenance down time in time periods that work best for the RCEA. All capacity will be included in the sale to RCEA. No capacity rights have been sold or committed to other parties.

RCP presents this Proposal in good faith and would appreciate RCEA acting in kind. If any party has a reason to object to this Proposal, RCP would expect an opportunity to consider any objectives and either refute the objection or work towards a solution agreeable to all parties. We would appreciate the opportunity to further discuss this Proposal with the RCEA and look forward to your response.

Sincerely submitted,


David S. O'Neill

cc:

County of Humboldt – Estelle Fennell (Vice Chair)
City of Trinidad – Dwight Miller
City of Arcata – Michael Winkler
City of Blue Lake – Chris Curran
City of Eureka – Austin Allison (Board Chair)
City of Ferndale – Stephen Avis
City of Fortuna – Dean Glaser
City of Rio Dell – Frank Wilson
Humboldt Municipal Water District – Sheri Woo

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