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August 31, 2017

Jan Coppinger, Administrator
Lake County Special Districts
Administration Office
230 N. Forbes Street
Lakeport, CA 95453

Re: **Solar Energy Project – Kelseyville Wastewater Treatment Plant RFP**

Dear **Ms. Coppinger:**

Thank you for the opportunity to present this proposal for the Kelseyville Wastewater Treatment Plant RFP.

Proposal Content

Company name and location:
Energy Equity dba North Coast Solar, 1468 Funston Drive, Santa Rosa, CA 95407
POB 303, Upper Lake, CA 95485

Company history and current operating structure:
North Coast Solar is a California Corporation has been in operation since 1984 as a General Contractor (B) and Solar Contractor (C46). License number 649300.

Description of solar products and services:
North Coast Solar is a distributor and project developer for Ciel et Terre USA, the manufacturer of the floating solar system proposed for this project. North Coast Solar as an Equipment Procurement Contractor (EPC) has built commercial and residential solar projects in Northern California including Sonoma, Lake, Napa, Marin, San Francisco, Santa Clara, San Mateo, Alameda, Yolo and Nevada Counties. Products include the Ciel et Terre Hydrelio floating solar system and other rooftop and ground mount solar electric systems. North Coast Solar has also provided energy consulting and project management services to commercial clients in the Bay Area including micro-cogeneration projects on high rise buildings in San Francisco and Oakland.

Resumes of key staff:
Brian Hines, President, North Coast Solar and Business Development, Ciel et Terre USA
(See North Coast Solar Statement of Qualifications attached)

Lucas Wojcik, Advisory Consulting Engineer, Ciel et Terre
(See Wojck resume attached)

North Coast Solar Project References:

See attached Past Performance Reference List plus here is a Hydrelio floating solar system reference for Kunde Family Winery in Kenwood, CA.
Jeff Kunde, jkunde@kunde.com (707) 282-1511.

Ciel et Terre Project References (see attached Company Profile and Reference list)
Ciel et Terre now has over 85 MWs of Hydrelio floating solar systems installed worldwide.

Implementation of Project:

Phase 1: Finalize system design, electrical engineering, structural engineering, PG&E interconnection approval, County of Lake permitting, CEAQ determination if necessary. (10% mobilization fee of turnkey project cost)

Phase 2: Materials Acquisition and Delivery to Site. (50% of turnkey project cost)

Phase 3: Construction and Commissioning. (Balance less 10% upon Building Permit Final) (10% or Final Balance upon PG&E Permission to Operate Letter)

Payments to be made from escrow account set up with Municipal Lease funding.

Financing Strategy:

The financing strategy for this project will be the attached Municipal Lease financing proposal. There are two financing proposals. One is for the 165 KW system option and one is for the 251 KW system option. Two Solar Finance Analysis pro formas are attached to show the benefits of this financing method for the District over a 25 term.

While the leasing company can not take the 30% solar tax credit or solar accelerated depreciation, they are eligible for a tax reduction on income from municipal financing that allows them to lower the interest rate. See attached "Benefits of Tax-Exempt Municipal Financing" from Leasource Financial Services, Inc. and the detailed Cash Flow Analysis for the two proposed system sizes.

A summary of the expected benefits of the municipal lease financing includes:

165 KW system: $ 2,629,705 net cash benefit over 25 years.

251 KW system: $ 2,316, 964 net cash benefit over 25 years.

- 10-year term.
- Annual payments
- No down payment.
- Nothing due at the end of the term.
- Ownership right from the beginning.
- Payments are in arrears after utility savings realized.
- Legal fees estimated at $15,000 are included in the amount financed.

Project Description

This proposal is for two Ciel et Terre Hydrelio floating solar system designs for consideration by Lake County Special Districts: 165 KW, the most economic system and 251 KW, a 100% solar electricity offset option.

165 KW system, $495,720, 6.2 year payback, annual KWh offset 66%

This system is designed to be the most cost effective given the PG&E electric rate schedule at the Kelseyville facility which is E19. This rate schedule has certain "demand" and other "no bypassable (NBC)" charges that make a larger system not save any more on electrical costs. The facilities KWh annual usage is 373,584 KWh. The solar system would generate 244,802 KWh. Generating any more KWh would not reduce the facility's average monthly bill which is $13,766. This system would reduce that to $6,810.

The system would consist of 486 solar modules and two 80 KW inverters located on the shore of the pond. The solar modules would installed on a Ciel et Terre Hydrelio solar island. Two "combiner boxes" would also be installed on special floats on the island. From the two combiner boxes, submersible pump cable would run through corex floating conduit to shore where there would be two DC disconnect switches. Wire in conduit would transmit the DC power to the inverters which would convert it to 480 volt AC power. An 200 amp AC solar subpanel would combine the output. This AC power would be "line-tied" into the Motor Control Center (MCC) with a fused AC disconnect switch ahead of the 600 amp bus bar. A internet monitoring system would be included that will allow the facility personnel and North Coast Solar to monitor performance.

The Hydrelio solar island will be anchored to shore with a soil anchor system estimated to require 9 anchors. It will be designed to sit on bottom of pond if pond drained. The island will be structurally engineered to meet all building codes. Electrical engineering will also be included. Such engineering will require a site visit and drawing stamped by California professional engineers in the first phase of the project.

251 KW system, $752,760, 8.1 year payback, annual KWh offset 100%

This system will be designed to offset approximately 100% of the Kelseyville plants annual electrical usage of 373,584 KWh. It will produce 371,736 KWh. This is the most sustainable system reducing the facility's electric grid consumption and producing the highest renewable energy offset. The value of this system may increase in the future if a program of carbon offset payments or Renewable Energy Credits (RECs) is established in the future as it has been in other states.

The system would consist of 738 solar modules and three 80 KW inverters located on the shore of the pond. The solar modules would installed on a Ciel et Terre Hydrelio solar island. Three "combiner boxes" would be installed on the island, three DC disconnects on shore along with a 400 amp solar subpanel and fused solar disconnect switch.

Design details will be completed after site inspection of pond and electrical system.

We hope that this proposal for a Ciel et Terre Hydrelio floating solar system at the Kelseyville Plant will meet with your approval and we look forward to working with the District to make this a very successful project with benefits for decades to come.

Thank you.

Sincerely,
NORTH COAST SOLAR

R. Brian Hines MBA CEM CGBP
President

Statement of Qualifications

ENERGY EQUITY DBA NORTH COAST SOLAR SINCE 1984

Energy Equity dba North Coast Solar is an energy consulting and contracting firm. North Coast SolarResources was formed as a Sole Proprietorship in 1984 and incorporated as Energy Equity in 1990. Energy Equity dba North Coast Solar is a California Corporation.

The firm's principal, R. Brian Hines MBA CEM CGBP has been in California's solar industry since 1977 and is recognized as an industry founder and leader in the San Francisco Bay Area.

After graduating from University of California, Santa Barbara he started his career in the energy conservation industry as a solar sales engineer for a firm in Santa Barbara owned by his Advanced Solar Energy professor at UC Santa Barbara. Mr. Hines has an MBA from Golden Gate University, is a Certified Energy Manager through the Association of Energy Engineers and is also a Certified Green Building Professional through the US Green Building Council.

North Coast Solar has contracting license 649300 for B, General Contracting and C46, Solar Contracting. During the past 32 years North Coast Solar has been engaged with many innovative energy conservation, energy efficiency and distributed generation projects in the San Francisco Bay Area. The firm has specialized in new technologies.

Some of these innovative projects include Stony Point Rock Quarry in Cotati, a 202 KW solar installation using dual axis tracker technology. Building integrated solar module installations such as the City of Rohnert Park Callahan Sports Facility and Amarosa Academy, a new school operated by the Sonoma County Office of Education. North Coast Solar has experience with many micro-cogeneration projects as Project Manager also. These projects include 1080 Chestnut, San Francisco; 1200 California Corporation, San Francisco; Pacific Heights Tower, San Francisco and Park Bellevue Tower in Oakland. These were complex projects in high rise downtown buildings which required extensive electrical and mechanical engineering and work by subcontractors who dealt very successfully with new complex electrical and heat recovery systems and controls. These systems are in successful operation and some operating since 1986.

This is a great asset of North Coast Solar's experience, the relationships built up with the Bay Area's top electrical subcontractors over the years including Lunardi Electric, O'Rourke Electric, Metropolitan Electric, and Cupertino Electric. These subcontractor relationships make it possible for North Coast Solar to take on projects of large scope successfully.