

Renewable America, LLC Foster Clean Power Project

Project Description and Operations and Maintenance Plan

1.0 PROJECT DESCRIPTION

Renewable America LLC (RNA) proposes to construct, operate, and decommission a two phased community-scale solar and energy storage project referred to as: Foster Clean Power A (Phase I) and Foster Clean Power B (Phase II).

Phase I would involve the construction of a 3-megawatt alternating current (MWac), photovoltaic (PV) solar energy facility with associated inverters, fencing, and access road. The access road for Phase I would be approximately 15 feet wide and have a total length of approximately 164 feet, approximately 73 feet of which would be a new road that connects Foster Avenue to an existing agricultural road located on the south and east perimeters of the Project site. An equipment pad, approximately 50 feet by 100 feet in size, would be constructed as part of Phase I to house the Project's electrical equipment, including inverters, transformers, AC switchgear, and PV system disconnect. Phase I would also include a 1.25-MW battery energy storage system, which would be located on the equipment pad. The Project footprint (fence line boundary) for Phase I would be approximately 12 acres in size.

Phase II would involve the construction of an additional 4-MWac PV solar energy facility immediately north of the Phase I site with an additional 3.75-MW battery energy storage system. The Project footprint (fence line boundary) for Phase II would be approximately 18 acres in size. Phase II would utilize the same equipment pad area identified for Phase I.

The Project is located on one legal parcel that that is comprised of three tax parcels that are collectively 84.42 acres (APN 505-151-012-000 at 20.33 acres, APN 506-231-019-000 at 22.76 acres, and 506-231-022-000 at 41.33 acres) of which approximately 30 acres would be developed for the Project. The Project would deliver power to Pacific Gas and Electric Company's (PG&E) existing distribution network via a primary service interconnection located on Foster Avenue. Access to the site is provided by Foster Avenue/Jackson Ranch Road. Regional Access to the site is provided by Highway 101.

The proposed Project has been designed to avoid existing easements and structures and with applicable setbacks. The solar facility would be positioned on the property within previously tilled areas used for crop production. The Project site is comprised of heavily disturbed agricultural fields. The adjacent properties include agricultural and rural residential land uses.

1.1 Solar Facility

The Project includes the development of a PV solar power generation facility that would generate 3 MW (Phase I, 12 acres) and 4 MW (Phase II, 18 acres) of alternating current. Rows of solar panel arrays oriented north to south would be installed within the two development areas on a single-axis tracking system that would rotate from east to west throughout the day (approximately 50 degrees in each direction). The proposed solar arrays would have a maximum height of approximately 14 feet and a minimum ground clearance of 1 foot. Each solar array row would be spaced approximately 10 to 12 feet apart. The tracking system would be installed on posts driven directly into the ground to a depth of approximately 6 feet. If necessary due to soil conditions, the posts may be installed on small concrete foundations; however, such conditions are not anticipated. Power collection cables would be suspended from the tracking system in racks. Trenching to installed cables underground would be limited to areas where access must be maintained.

The specific dimensions and ground clearance requirements of the solar panels and tracking system would depend on the solar panel model that is selected at the time of construction. The final project design would be subject to review and approval by the Humboldt County Building Department.

1.2 Battery Storage and Electrical Equipment Facility

Phase I and Phase II of the Project would each include a 1.25-MW and 3.75-MW battery energy storage system, respectively, that would be consolidated with the Project's other electrical equipment on an approximate 50- by 100-foot equipment pad, including inverters, transformers, AC switchgear, and PV system disconnect. The battery units and other electrical equipment would be housed in containers secured to a concrete foundation. The battery units would be equipped with a liquid cooling system and a fire alarm system and would meet applicable state and federal electrical and fire code standards.

1.3 Distribution Interconnection

The Project would connect to PG&E's existing Arcata 1105 12-kilovolt distribution line that runs along Foster Avenue immediately south of the Project site and connects to the Arcata Substation located at the intersection of 6th Street and I Street, approximately 1.5 miles southeast of the Project. Facility attachments consisting of one or more poles may be installed between the Project's electrical equipment and the point of interconnection on the distribution system. The poles are expected to be either wood or light-duty steel and a similar height to existing distribution poles in the area (up to 75 feet). No distribution upgrades are anticipated; however, minor upgrades at or near the point of interconnection may be necessary.

1.4 Perimeter Fencing

The solar facility and associated electrical equipment would be encompassed by an approximately 6-foot-tall chain-link perimeter fence with three strands of barbed wire installed

on top. Two separate areas would be fenced for Phases I and II. The fenced area for Phase I would be approximately 12 acres and the fenced area for Phase II would be approximately 18 acres.

1.5 Site Access

Access to the property and solar facilities would be achieved via an existing agricultural perimeter road and driveway that connects to Foster Avenue immediately northeast of Janes Road (approximately 832 feet). The driveway access entrance would be expanded to accommodate large delivery trucks and construction equipment. In addition, the existing agriculture road would be expanded if necessary to a minimum width of 15 feet. A new 15-foot-wide access road would be installed from the existing perimeter road to the proposed equipment pad location (approximately 264 feet). Access roads for the Project would not be paved.

1.6 Site Drainage and Stormwater Management

The Project would be designed to conform to existing topography and constructed in a manner that would minimize ground disturbance. Grading and the creation of impervious surfaces would be limited to the approximately 50-foot by 100-foot equipment pad. The Project would maintain the existing site drainage patterns and would not result in a substantial increase in stormwater flow; therefore, an engineered site drainage system to collect or convey stormwater would not be required. Stormwater would continue to flow across the site in line with existing drainage patterns.

1.7 Night Lighting

Nighttime illumination is not expected from the proposed solar facility. Permanent lighting fixtures for the Project would be limited to those required by County, state, and federal building guidelines, and equipment requirements, or that may be necessary for security purposes. Any lighting fixtures that may be needed would be installed in a downward facing direction and shielded if necessary. No aviation safety lighting or other markings to meet Federal Aviation Administration requirements are anticipated because the Project site does not exceed 200 feet in height.

1.8 Construction

Construction Equipment and Workforce

Equipment that would be used during construction of the solar facility would include an excavator, pile driving machine, bobcat machine, forklift, pick-up trucks, line trucks, bucket trucks, flat-bed trucks, and other similar equipment. Up to approximately 20 workers would on-site during peak construction activities. Given the limited number of workers only a few pieces of equipment would operate and any given time. PG&E would facilitate the Project interconnection process where the Project would deliver power to the existing distribution network.

Grading and Excavation

The Project has been designed to conform with the existing topography and would be constructed in a manner that would minimize ground disturbance. Minimal site grading would occur at a few select areas where ongoing access and power collection facilities would be located. In addition, the Project would incorporate methods to minimize ground disturbance associated with installing cables, such as attaching cables to the tracking system instead of digging trenches. Where necessary, to stabilize the ground surface and establish a safe work surface, loose, unstable soils would be compacted and flattened at the start of construction.

Vegetation and Tree Removal

The proposed Project would occur within areas that have been primarily used for row crop production and are free of natural vegetation and trees; however, trees are located adjacent to the proposed Project and access road connection point along Foster Avenue. The removal of a small number of trees is anticipated where the Project would interconnect into the existing distribution network on Foster Avenue as well as where an existing road would be expanded to establish the driveway that would connect to Foster Avenue. Tree trimming may also be necessary along access routes and in the immediate area of Project facilities. Tree removal would be limited to the minimum necessary to maintain the vegetative buffer along Foster Avenue. Any necessary permits would be obtained from the County prior to tree removal, although the need for such permits is not anticipated.

Construction Access and Traffic

Access during construction would be provided via Foster Avenue. Vehicle and truck traffic associated with the construction of the Project would be dispersed over an approximately 4-month period. It is anticipated that the construction workforce would typically range between approximately 10 and 20 workers for the majority of the construction phase. During peak construction activities, it is conservatively estimated that up to 50 construction workers may be on-site and no more than 50 daily truck trips to transport material and equipment would occur. The estimated number of vehicle and truck trips per workday would typically range from approximately 10 to 20 trips per day, with brief periods of up to approximately 50 trips per day. At no point would the Project exceed 100 trips per day.

Construction Schedule

Construction of the Project would begin with the southern development area (Foster A, Phase I). The northern development area (Foster B, Phase II) would be constructed after Phase I is operational for approximately 2 years or more.

Construction would take approximately 4 months to complete in each development area. Construction in each area would begin following completion of the land use permit process and obtaining all other applicable permits and authorizations (i.e., Building Permit). Construction

activities would typically occur Monday through Friday, 8:00 a.m. to 5:00 p.m., or otherwise authorized by the County.

1.9 Operation and Maintenance

Operational Workforce and Hours of Operation

The proposed solar facility would operate 24 hours a day, 7 days a week, and year-round, with the exception of down time for scheduled maintenance. The facility would be unmanned and managed remotely with security surveillance. Regular staff presence during the operational period would not be required. Staff would be on-site periodically to inspect and maintain Project facilities and maintain vegetation. It is anticipated that approximately two staff members would visit the Project approximately four times per year for regularly scheduled inspections and maintenance. In case of damages or non-functional equipment requiring replacement or repair, an appropriate number of staff would be on site and necessary deliveries would be made to address the issues. The site is expected to have deliveries for equipment replacement once every 10 years with the exception of unexpected events.

Operational Water Use

The regular use of water is not anticipated for operation of the Project. It is anticipated that the PV panels would be dry cleaned approximately once a year using a dry-cleaning process. Under rare circumstances a minimal amount of water may be used to wash the solar panels. In the rare event that water is used to wash the panels, up to approximately 20,000 gallons could be needed per annual cleaning cycle and the water would be obtained from the permitted well on site. Any water runoff from washing activities would be captured on-site by percolating through the soils underlying the panels. Any water washing that may occur would not generate runoff.

Implementation of the Pollinator Habitat Program (refer to Section 1.11 below) is not anticipated to require the regular use of water and would be designed to minimize the use of water; however, the periodic use of water may be necessary to establish vegetation or to water it during extreme drought conditions in order to meet the Project's commitments to maintain vegetation within the site and continue agricultural activities. In the best-case scenario, if there is no major drought, the project would not require any water annually, but in the worst-case scenario (major drought period within the first few years of planting), the project could use up to approximately 814,500 gallons of water per year for the 30 acres.

1.10 Decommissioning

Both Phase I and Phase II would operate for approximately 35 years. At the end of the Project service life, the Project would be decommissioned. A Decommissioning Plan would be developed for the Project to ensure that the facility would be completely decommissioned and removed from the property utilizing industry standards and emergent best practices at the time of decommissioning. The Decommissioning Plan would ensure the Project site would be returned to its pre-Project condition and continue to function as land suitable for agricultural use.

The Decommissioning Plan would be submitted to the Humboldt County Planning and Building Director prior to the issuance of Building Permits. The Decommissioning Plan would include: removal of all above and below ground improvements; restoration of the surface grade, placement of topsoil over all removed structures, revegetation and erosion control as deemed necessary by the Director; a timeframe for improvement removal and site restoration; an engineer's cost estimate for all aspects of the removal and restoration plan; an agreement signed by the property owner and operator that they take full responsibility to implement the Decommissioning Plan; a plan to comply with all state and federal requirements for reuse, recycling and/or disposal of potentially hazardous waste.

Most of the components of the solar facility are recyclable, and the ability to recycle parts is expected to increase over time. There are also substantial salvage values associated with many of the components through recondition, resell, and recycling programs. The electrical components and wire contain large amounts of copper and aluminum, the electrical equipment may be refurbished and reused, and the PV modules may be reused on other systems if they are determined to have substantial output upon decommissioning.

1.11 Pollinator Habitat Program

The proposed Project includes a Pollinator Habitat Program with the purpose of continuing agricultural activities at the site throughout the Project's operational period, maintaining the existing topsoil and seedbank, enhancing the biological diversity of the subject properties, and providing some benefits to neighboring agricultural production and crop yields by increasing pollinator activities. Other agricultural uses on the property may include, but not be limited to grazing and the keeping of honeybees.

Following construction, vegetation would be planted at the Project site to provide pollinator habitat within the unoccupied areas of the solar facility that do not need to be maintained free of vegetation for safety and access purposes. The total Project footprint is approximately 30 acres and approximately 80 percent (24 acres) would be maintained with pollinator vegetation for the life of the Project. Planting and maintaining vegetation within the site would have other environmental benefits by minimizing the area of exposed ground surface and reducing the potential for dust management and stormwater runoff.

A Pollinator Habitat Program Implementation Plan would be developed in coordination with Humboldt County and CDFW prior to obtaining a Building Permit. The plan would address the following:

- A site plan or map identifying areas where pollinator vegetation would be planted and where vegetation clearance is necessary for safety and access requirements.
- Appropriate native vegetation species that would be selected and planted to produce the desired pollinator activities. The seed mix and vegetation species would be selected by a qualified specialist and input from the County and CDFW would be incorporated. Species that require the minimum amount of water use and maintenance would be considered in addition to other goals.

- Responsibilities and necessary qualifications for those responsible for preparing and overseeing implementing the plan (i.e., botanist, landscape architect, or similar).
- Planting and maintenance procedures, including detailed on any supplemental watering that may be needed to establish the vegetation.
- Schedules for planting and maintenance for the life of the Project.
- Procedures to provide annual updates summarizing O&M activities, as well as measures taken to ensure the success of the pollinator habitat that would be provided to the County.
- Adaptive management procedures to make any necessary changes to the program when appropriate and in coordination with the County.
- Organic vegetation maintenance activities and restrictions on the use of herbicides and insecticides.

1.12 Impact Minimizing Design Features and Practices

The following design features and practices would be incorporated into the Project to avoid and minimize impacts on the environment:

- Avoid all environmentally sensitive areas with appropriate development setbacks.
- Select Project equipment and installation methods that would require minimal grading, excavation, and other forms of ground disturbance.
- Limit the creation of impervious ground surfaces to the electrical facility pad and other small areas where necessary.
- Maintain the Project site's existing topography and surface drainage patterns.
- Restore and stabilize all temporarily disturbed Project work areas following construction.
- Implement a Pollinator Habitat Program.
- Implement a Decommissioning Plan.