NOTICE OF PREPARATION

To: Agencies, Organizations, and Interested Persons

From: County of Merced

Department of Community and Economic Development

2222 'M' Street, Merced, CA 95340

Contact: Valerie Dalley, Planner I, Community and Economic Development Department
Valerie.Dalley@countyofmerced.com
(209) 385-7654 ext. 4415

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Zeta Solar and Battery Energy Storage System Project (Condition Use Permit No. CUP22-015)

Merced County is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) for the proposed Zeta Solar and Battery Energy Storage System Project (Project). Merced County will prepare an Environmental Impact Report (EIR) for the Project as described below and in Attachment A. The County solicits your views as an agency, organization, and interested periods as to the scope and content of the environmental information to be provided in the EIR. Input provided by agencies should be germane to the agency's statutory responsibilities in connection with the Project. Your agency will need to use the EIR prepared by Merced County when considering your permit or other approval of the Project.

The description, location, and probable environmental effects of the Project are contained in Attachment A. All project related documents can be obtained at the Community of Economic Development Department, 2222 'M' Street, Merced, CA 95340. This information is also available for download from the Merced County Planning Department website at:

https://www.countyofmerced.com/414/Environmental-Documents

You are invited to view the Notice of Preparation and submit written comments regarding the scope and content of the environmental information in connection with the Project should you wish to do so. Due to time limits mandated by state law, your response must be sent at the earliest possible date, but **not later than 30 days from receipt of this notice**.

Comment Period: FRIDAY, JULY 14, 2023 THROUGH MONDAY, AUGUST 14, 2023

Please send your response to Valerie Dalley, Planner I, at the Merced County address and/or email address shown above. If submitting comments for an organization or agency, please include the name of a contact person so that we can contact you further during the EIR preparation process.

Project Title: Zeta Solar and Battery Energy Storage System

Project Location: The Project site is in unincorporated Merced County, approximately 9 miles south of Los Banos. Poleline Road abuts the southwestern Project site boundary. The California Aqueduct and U.S. Interstate 5 run parallel to the southwest Project site boundary about 300 feet and 800 feet west of the Project site, respectively.

Project Applicant: Longroad Development Company, LLC
330 Congress Street, 6th Floor
Boston, Massachusetts 02210

cc: State Clearinghouse

Attachment A

Zeta Solar Generation and Battery Energy Storage System Project

1. - PROJECT OVERVIEW

The proposed Zeta Solar and Battery Energy Storage System Project (Project) consists of a photovoltaic (PV) solar power generation facility with a battery energy storage system (BESS) that would generate up to approximately 75 megawatts (MW) of renewable electrical energy and include an energy storage capacity of up to 8 hours of 75 MW of alternative current (AC). The 650-acre Project also includes the construction of a 1,700-foot-long generation-tie (gen-tie) line to deliver power from the Project to Pacific Gas and Electric's (PG&E's) existing Mercy Springs Substation (point of interconnection).

The Project would include a solar array area surrounded by an up to 7-foot-tall security fence. Solar PV modules mounted in rows on single-axis trackers and racking equipment would occupy most of the Project site. The Project would also include, among other things, an underground direct current (DC) collector system, approximately 21 electrical equipment pads with inverters and transformers within the PV facility, an approximately 15-acre BESS with regularly spaced battery units and electrical equipment pads, underground or above-ground AC collector system, an approximately 5-acre Project substation, an approximately 1,700-foot-long 70 kilovolt (kV) gen-tie line, an approximately 0.8-acre operation and maintenance (O&M) area, including an O&M office and adjacent O&M warehouse, and access roads. As part of construction, an approximately 10-acre staging area/laydown yard would be located within the Project site and accessed via internal graveled or compacted earth access roads.

As part of the interconnection process, PG&E would install gen-tie line terminal equipment and the termination of the Project's fiber optic line and install one circuit breaker to an existing 70 kV ring bus at the Mercy Springs Switching Station.

Construction of the Project facilities would occur over 24 consecutive months. The Project would operate year-round to generate electricity from the PV facilities during daylight hours and dispatch additional electricity during either daylight or non-daylight hours, depending on the application of the BESS portion of the Project.

The Project has an anticipated operational life of approximately 40 years. At the end of the Project's operational term, the Applicant or project proponent would determine whether the Project site should be decommissioned and deconstructed or if it would seek an extension of the Project's CUP and repower the facilities. If any portion of the Project site is decommissioned, it would be restored to its pre-development function.

Non-potable water for construction and operations would be sourced from the Delta-Mendota Canal through the San Luis Water District. Potable water would be provided by the City of Los Banos during construction and operations.

2. - PROJECT LOCATION

The Project is located on privately-owned land in southwestern Merced County, approximately 9 miles south of Los Banos. The Project generation facility would occupy all or portions of three parcels identified by Merced County as Assessor Parcel Numbers (APNs) 090-130-018, 090-130-044, and 090-130-060. The gen-tie line would extend north through APN 088-180-063 to the point of interconnection in APN 090-103-059. Poleline Road abuts the southwestern Project site boundary. The California Aqueduct and U.S. Interstate 5 (I-5) run parallel to the southwest Project boundary about 300 feet and 800 feet to the west of the Project site, respectively. First Lift Canal Road lies along the western

boundary of the Project site, and the eastern boundary abuts an unnamed dirt/gravel road. The Project site consists of fallow agricultural lands, and there has been no agricultural production on the Project site for over 10 years. Land uses surrounding the Project site primarily consist of undeveloped active agricultural lands to the north, south, and east, in addition to a small (0.15-acre), developed area to the south housing a cell tower, and undeveloped, hilly grasslands used for cattle grazing to the west. The Vega Solar Project site and Dos Amigos Pumping Plant are located 1,200 feet north and 0.5 mile northwest of the Project site, respectively. A Project site plan is provided as Figure 1.

3. - EXISTING CONDITIONS

The land use designation for the Project site is Agricultural under the County General Plan. The Agricultural land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The Agricultural designation also allows for the development of energy generation facilities. The Project site is also zoned Exclusive Agricultural (A-2) under the County Zoning Code. Pursuant to Zoning Code Section 18.10.020, Energy Generation Facilities including solar facilities are allowed in the A-2 zone with approval of a conditional use permit.

The Project site consists of 462.01 acres of Prime Farmland, 185.47 acres of Farmland of Local Importance, 0.65 acre of Grazing Land, and 1.77 acres of Vacant or Disturbed Land, as designated by the Department of Conservation Farmland Mapping and Monitoring Program (FMMP). According to the FMMP, the Prime Farmland Classification includes lands with the soil quality, growing season, and moisture supply needed to produce sustained high yields. However, the Project site has been subject to a Water Administration Agreement and a Restrictive Covenant Prohibiting Irrigation with the San Luis Water District (SLWD) since 2011 (recorded March 30, 2011, as instrument 2011-011545 and recorded March 30, 2011, as instrument 2011-011542, Official Records, respectively), and the land has not been irrigated since that time. As such, the surface water associated with the land has been reallocated and is not currently available for agricultural use on the Project site. Without access to surface water for irrigation, production of high-value agricultural crops is not feasible and has not occurred on the Project site for over 10 years. From 2012 to 2018, dryland plants were planted on the Project site as a weed-control measure, but these plants were not irrigated. The land laid fallow for 3 years between 2018 and 2020. Grazing sheep have been used on the Project site periodically since 2021 as a weed-control measure. The Project site is undeveloped and consists largely of patches of common wheat (not grown for harvest), along with other non-native grass species. The Project site also includes unvegetated areas, such as unpaved roads, paved roads, and sections of riprap. The Project site and surrounding land are in a relatively flat-lying plain and exhibit little topographic variation.

The Project site is not contracted under the California Land Conservation Act of 1965 (Williamson Act). However, all Project parcels except APN 090-130-044 are in the County's agricultural preserve. An Agricultural Preserve Amendment, requiring Board Approval, would be required to remove the parcels from the Agricultural Preserve and allow for development of the Project.

4. - PROJECT CHARACTERISTICS AND FACILITIES

1. PV Module Configuration

The Project would primarily consist of solar arrays that would generate electricity directly from sunlight. A solar array consists of a row of PV modules electrically connected and supported by a common tracking structure.

The modules would be mounted on single-axis trackers that rotate along a fixed axis, allowing the PV

modules to track the sun's east/west movement throughout the day. The length of each row of PV modules could be up to 365 feet along the north/south axis. The PV module currently selected for the Project would measure approximately 90 inches tall and 55 inches wide. When the PV modules are at their steepest angle of tracker rotation, the tops of the modules would be up to 12 feet above the ground, and their lower edges would be approximately 20 inches above the ground.

The PV modules would be mounted on a corrosion-resistant metal racking system and steel support posts that are driven into the ground (4–6 feet deep). Concrete foundations would not be required to stabilize the tracker structures on this Project.

The general characteristics of the final PV modules are such that they would be covered with dark, high-light-absorbing, and low-reflective glass. The final configuration of PV modules and number of modules and rows would depend on the final technology selected. Once the final composition of varying technologies is selected, the Applicant would produce an optimized layout that takes landscape features, drainage considerations, and maintenance access into account.

2. DC Collection System and Electrical Equipment Pads

Electricity produced by each PV module row would be collected by a DC collector system and delivered through conductors to electrical equipment pads with inverters and transformers. The inverters would convert the DC power to three-phase AC and deliver it to adjacent medium voltage transformers, where the power would be stepped up in voltage from the output of the solar modules (below 1500 volts) to 34.5 kV. Each electrical equipment pad would have a concrete or steel pile foundation, each approximately 20 feet by 8 feet, and would support encased units of inverters and transformers. Up to 21 electrical equipment pads would be spaced across the PV facility. In addition, the BESS would include approximately 70 electrical equipment pads, each approximately 20 feet by 8 feet.

3. AC Collector System

Electricity exiting the electrical equipment pads would be transported by a 34.5 kV AC collector system and delivered through approximately 3.5 to 4-foot-deep underground conductors or aboveground conductors to an onsite substation. The Applicant expects that most of the AC collector system would be installed underground. If an aboveground option is selected, it would consist of up to 20 wooden distribution line poles, each 35 to 55 feet tall.

4. Battery Energy Storage System

The Project would include construction of a BESS with the ability to store up to 75-MW and a discharge duration of up to 8 hours on the Project site. The BESS would be located on approximately 15 acres in the northwest part of the Project site. The BESS would consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. The BESS modules, which could include commercially available lithium or flow batteries, consist of modular metal structures, but may also be housed in a dedicated building(s) in compliance with applicable regulations. The maximum height of a dedicated structure is not expected to exceed 25 feet. The actual dimensions and number of energy storage modules and structures would vary depending on the application, supplier, and configuration chosen, as well as on off-taker/power purchase agreement requirements and on county building standards. Heating, ventilation, and air conditioning systems are required and would be integrated into the containers. In accordance with relevant safety standards, the containers would be equipped with appropriate fire safety systems. The BESS would include an emergency back-up generator to power the HVAC system in the unlikely event of primary power loss. The Project could use any commercially available battery technology, including but not limited to lithium ion, sodium sulfur, sodium hydride, and nickel hydride. The BESS would also include approximately 70 electrical equipment pads with inverters and transformers.

The final configuration of BESS modules and electrical equipment pads and number of BESS modules and rows would depend on the final technology selected when equipment procurement is set to commence (as soon as 2025). Once the final composition of varying technologies is selected, the Applicant would produce an optimized layout that takes landscape features, drainage considerations, and maintenance access into account.

5. Onsite Project Substation

The Project would include a new onsite Project substation located in a 5-acre area in the northwest corner of the Project site. The Project substation would consist of a new main power transformer that would increase the voltage from 34.5 kV to 70 kV. In addition, the Project substation would include 34.5 kV breakers (5 to 6 breakers for this size Project), a 70-kV breaker and switch, bus work (rigid conductors), and capacitor banks/reactors, as required. Maximum heights for this equipment would be 25 feet. Support structures and riser equipment would be up to 65 feet tall to match the height of the gen-tie line. The Project substation would also include a control building, which would be a metal-clad building approximately 12 feet by 40 feet (480 square feet). The building would be up to 25 feet tall and painted in a neutral color (e.g., beige or gray). The transformer type would be non-polychlorinated biphenyl (non-PCB) oil filled.

6. Gen-tie Line

The Project would include a new 70-kV overhead gen-tie line, which would extend approximately 1,700 feet north from the Project substation to the Mercy Springs Substation, which is the Project point of interconnection to the grid. From riser equipment in the substation area, the power would be delivered via a single-circuit conductor on up to 65-foot-tall wooden poles to the Mercy Springs Substation. The poles would be spaced approximately 250 feet apart, depending on terrain and alignment (e.g., turns would require more poles). The gen-tie would be developed within a 150-foot-wide easement.

7. Interconnection

The Mercy Springs Substation is owned and operated by PG&E. PG&E would incorporate upgrades to Mercy Springs Substation to support interconnection of the gen-tie line, including installation of a new circuit breaker and additional switches. PG&E's improvements would occur within areas previously disturbed and occupied by existing electrical facilities. Approval of the improvements would fall under the permitting jurisdiction of the California Public Utilities Commission (CPUC). Because CEQA requires analysis of the environmental impacts of the full project, the Project Description includes the interconnection upgrades, which will be addressed in the EIR.

8. Control System and Telecommunications

The Project would include an onsite Supervisory Control and Data Acquisition (SCADA) system that would allow for remote monitoring and control of inverters and other critical Project components. The SCADA system would monitor Project power output and availability and run diagnostics on the equipment. Access to the Project's SCADA system would be accomplished with wireless and/or hard-wired connections to locally available commercial service providers (e.g., a local exchange carrier). The SCADA system would be located in the O&M office and/or the Project Substation Control Building.

9. Onsite Meteorological Station

The Project would include one or more onsite solar meteorological stations (weather stations), which would consist of various sensors to measure solar energy (irradiance), air temperature, wind temperature and direction, humidity, and precipitation. Power for the meteorological stations would be provided by the plant auxiliary power system or a dedicated PV module with a small battery. Data from each sensor would be collected by the station's data-logger and transmitted to the Project's SCADA system for

monitoring and reporting purposes. The meteorological stations would likely be mounted on structures that are expandable from 6 to 15 feet in height.

10. Site Access and Access Roads

Access to the Project site would be from a new unpaved primary access road to be constructed on the west side of the Project. The primary access road would connect to the paved Poleline Road south of the Project. The main entrance gate would be in the western portion of the Project site, about 400 feet north of Poleline Road on the primary access road, and near the O&M area. A secondary access gate would be installed on the primary access road near the Project substation. Both gates would be locked, and signs would be posted to inform of the presence of high voltage equipment. Standard Merced County locks would be included on each gate to allow access for emergency vehicles. The primary access road would have a finished width of approximately 20 to 24 feet and be developed to County Road improvement standards.

The Project would include internal access roads for ingress and egress to the Project site, and for access to individual Project components and among the PV module rows to facilitate installation, maintenance, and cleaning of the solar modules. These roads would include an inner fence perimeter road; roads from the two Project entrances to the O&M area, BESS area, and Project substation; and roads to the solar arrays and electrical equipment pads. The perimeter road would function as a fire buffer, accommodate Project O&M activities, and facilitate onsite circulation for emergency vehicles. The perimeter access would be constructed in conformance with the state and Merced County design requirements for fire safety. Internal access roads running from the Project entrances to the O&M area, the BESS area, and Project substation, as well as the perimeter road, would be 20 to 24 feet wide. Both the perimeter road and primary access roads would be compacted native earth. If required, the main access roads would be graveled using approximately 8 to 12 inches of aggregate base on a compacted subgrade. The Project would include unpaved access roads between the blocks of module rows (i.e., at the ends of rows), which would be up to 16 to 25 feet wide and used to access the solar arrays, electrical equipment pads, and collector systems. In addition, the PV module rows would be spaced about 20 feet apart, creating access routes that would allow vehicle access to individual PV module locations.

Final module row spacing depends on final module selected other design considerations. The access roads would be installed during construction and remain in place during the operation phase. Final road alignments would depend on the final placement of the module rows, topography, and any other specific details to be incorporated into the final design.

11. Water Storage Tanks

One or more aboveground water storage tanks with a total capacity of up to 50,000 gallons may be placed onsite near the O&M area. The storage tank(s) near the O&M area would have the appropriate fire department connections to be used for fire suppression purposes.

12. Operation and Maintenance Structures

The Project would include an approximately 0.8-acre O&M area south of the BESS area, with an O&M office and an adjacent O&M warehouse that would be used for storage and maintenance work (Figure 2-2). The O&M office would be a modular office complex style building approximately 30 feet by 70 feet (2,100 square feet). The O&M warehouse would be a metal-clad pole barn style building approximately 40 feet by 75 feet (3,000 square feet). Both buildings would be up to 25 feet tall, and be painted in a neutral color (e.g., beige or gray). The two O&M structures would be located approximately 20 to 50 feet apart. The O&M area would include up to 10 parking spaces. The O&M office building may include an office, control room, restroom, septic tank and leach field, and electrical and communications utilities.

Roads, driveways, and parking lot entrances would be constructed in accordance with Merced County

improvement standards. Parking spaces and walkways would be constructed in conformance with all California accessibility regulations.

13. Project Site Security and Fencing

The Project site would be enclosed within a security fence measuring up to 7 feet in height from finished grade. Fence posts would be drilled and grouted or driven pneumatically depending on site-specific soil characteristics. Vehicle access gates would be installed as necessary, with the gates to remain locked when not in use.

Additionally, the Project may include additional security measures including but not limited to barbed wire, controlled access points, security alarms, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the Project.

Controlled access gates would be maintained at the main entrance to the Project site. Access to the Project site would be provided to offsite emergency response teams that respond in the event of an after-hours emergency. Enclosure gates would be manually operated with a key provided in an identified key box location.

14. Project Site Lighting

The Project would include external safety lighting for both normal and emergency conditions at the main Project gate, the Project substation, the BESS area, and the O&M area. Lighting would be designed to provide the minimum illumination needed to achieve safety and security. The lights would be downward facing, motion or manually activated, and shielded to focus illumination in the immediate area. Unless there was a known risk to the Project, lighting would be placed into motion detection mode at night to limit illumination at night when not required.

2.1 POTENTIAL AREAS OF ENVIRONMENTAL IMPACT

The County has determined that an EIR is required for this Project. Therefore, in accordance with CEQA Guidelines Sections 15063(a) and 15081, the County has not prepared an Initial Study and will instead begin working directly on the EIR. The EIR will evaluate potential environmental effects of the Project and propose mitigation measures to reduce any significant effects.

Stantec

Project Location
Merced County, CA

Prepared by PG on 2023-06-08
TR by JD on 2023-06-14

Client/Project
Longroad Energy Management, LLC
Zeta Solar and Battery Energy
Storage System Project

Figure 2-2

Title
Preliminary Site Plan

POI
Lon: -120.8192
Lat: 36.925

Primary Access Gate

Pole Line Rd

Dos Amigos to Panoche 230 kV

Los Banos to Panoche 230 kV

Los Banos to Panoche 230 kV

Project Component	Dimension
Project Boundary	650 acres
Substation with Control Building	5 acres
BESS	15 acres
Laydown Yard	10 acres
O&M Buildings, Warehouse, and Parking (10 spaces)	Less than 1 acre
Primary Access Road	16-24 feet wide
Perimeter/Internal Roads	16-24 feet wide
Fence Setback	30 feet from adjacent property lines

- Project Boundary (P)
- Panel Layout (P)
- Inverter and Transformer Pads (P)
- Substation with Control Building (P)
- BESS (P)
- O&M Facilities and Parking (10 spaces) (P)
- Laydown Yard (P)
- Mv Collector (P)
- Gate (P)
- Fence (P)
- Primary Access Road (P)
- Perimeter/Internal Roads (P)
- Utility Line (P)
- 70kV Gen Lead (P)
- Point of Interconnection (P)
- Parcel Boundary (E)
- <100 kV Transmission (E)
- 162 - 300 kV Transmission (E)

Key: (P) - Proposed
(E) - Existing

Notes

Project Parcel Number(s):
090-180-036, 090-130-058, 090-130-060, 090-130-018
Zoning:A-2: Exclusive Agricultural
(All neighboring parcels are zoned A-2: Exclusive Agricultural)
Coordinate System:
NAD 1983 StatePlane California III FIPS 0403 Feet
Date: 6/7/2023
Creator: MLS

0 500 1,000
Feet
1 inch = 1,000 feet
N

Source: Esri, Maxar, Earthstar Geographics and the GIS User Community

longroad ENERGY