County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

DATE: February 3, 2022

TO: Development Services and Capital Projects, Attn: William M. Kettler, Division Manager
Development Services and Capital Projects, Attn: Chris Motta, Principal Planner
Development Services and Capital Projects, Current Planning, Attn: David Randall, Senior Planner
Development Services and Capital Projects, Policy Planning, ALCC, Attn: Mohammad Khorsand, Senior Planner
Development Services and Capital Projects, Zoning & Permit Review, Attn: Daniel Gutierrez/James Anders
Development Services and Capital Projects, Site Plan Review, Attn: Hector Luna
Development Services and Capital Projects, Building & Safety/Plan Check, CASp, Attn: Dan Mather
Development Engineering, Attn: Laurie Kennedy, Grading/Mapping
Road Maintenance and Operations, Attn: Nadia Lopez/Martin Querin/Wendy Nakagawa
Design Division, Transportation Planning, Attn: Mohammad Alimi/Brian Spaunhurst/Gloria Hensley
Water and Natural Resources Division, Attn: Glenn Allen, Division Manager; Roy Jimenez
Department of Public Health, Environmental Health Division, Attn: Deep Sidhu/ Steven Rhodes
Agricultural Commissioner, Attn: Melissa Cregan
Sheriff's Office, Attn: Captain Mark Padilla, Captain Ryan Hushaw, Lt. Brent Stalker, Lt. Ron Hayes, Lt. Robert Salazar, Lt. Kathy Curtice
County Counsel, Attn: Alison Samarin, Deputy County Counsel
Pacific Gas and Electric, Centralized Plan Review Team, Attn: pgeplanreview@pge.com
U.S. Fish and Wildlife Service, San Joaquin Valley Division, Attn: Matthew Nelson, Biologist
CA Department of Water Resources, Attn: Kevin Faulkenberry
CA Regional Water Quality Control Board, Attn: centralvalleyfresno@waterboards.ca.gov
CALTRANS, Attn: Dave Padilla
CA Department of Fish and Wildlife, Attn: Craig Bailey, Environmental Scientist & R4CEQA@wildlife.ca.gov
State Water Resources Control Board, Division of Drinking Water, Fresno District, Attn: Jose Robledo, Cinthia Reyes
CA Department of Toxic Substance Control (CEQA unit), Attn: Dave Kereazis
U.S. Environmental Protection Agency Region 9, Sole Source Aquifer, Groundwater Protection, Attn: Elise Nord, SSA Coordinator
CA Public Utilities Commission, Infrastructures Permitting and CEQA, Attn: Mary Jo Borak
U.S. Department of Agriculture Natural Resources Conservation Service, Attn: David Durham

CA Department of Conservation Division of Land Resource Protection, Attn: Dennis O'Bryant
CA Department of Resources Recycling & Recovery, Attn: Patrick Snider
Westlands Water District, Attn: Jose Gutierrez, Russ Freemen
Dumna Wo Wah Tribal Government, Attn: Robert Ledger, Tribal Chairman/Eric Smith, Cultural Resources Manager/Chris Acree, Cultural Resources Analyst
Picayune Rancheria of the Chukchansi Indians, Attn: Heather Airey/Cultural Resources Director
Santa Rosa Rancheria Tachi Yokut Tribe, Attn: Ruben Barrios, Tribal Chairman/ Hector Franco, Director/Shana Powers, Cultural Director
Table Mountain Rancheria, Attn: Robert Pennell, Cultural Resources Director/Kim Taylor, Cultural Resources Department/Sara Barnett, Cultural Resources Department
San Joaquin Valley Unified Air Pollution Control District (PIC-CEQA Division), Attn: PIC Supervisor
Fresno County Fire Protection District, Attn: FKU.Prevention-Planning@fire.ca.gov

FROM: Jeremy Shaw, Planner
Development Services and Capital Projects Division

SUBJECT: Environmental Impact Report No. 8189 and Unclassified Conditional Use Permit Application No. 3734

APPLICANT: Key Energy Storage, LLC

DUE DATE: February 17, 2022

The Department of Public Works and Planning, Development Services and Capital Projects Division is reviewing the subject application proposing to allow an energy storage system and appurtenant transmission infrastructure, (including a 0.3-mile-long overhead transmission line which will connect to an existing off-site electrical substation), on an approximately 208-acre portion of three parcels totaling approximately 318-acres AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District (APNs: 085-040-58S, 36S, 37S) (Sup. Dist. 4).

The Department is also reviewing for environmental effects, as mandated by the California Environmental Quality Act (CEQA) and for conformity with plans and policies of the County. An Environmental Impact Report (EIR) is being prepared to determine the likely environmental impacts associated with the project. If you would like to receive that notice, please reach out to me and we will include you in the routing for the formal EIR Scoping Process.

Based upon this review, a determination will be made regarding conditions to be imposed on the project, including necessary on-site and off-site improvements.

We must have your comments by **February 17, 2022.** Any comments received after this date may not be used.

If you do not have comments, please provide a "NO COMMENT" response to our office by the above deadline (e-mail is also acceptable; see email address below).

Please address any correspondence or questions related to environmental and/or policy/design issues to me, Jeremy Shaw, Planner, Development Services and Capital Projects Division, Fresno

County Department of Public Works and Planning, 2220 Tulare Street, Sixth Floor, Fresno, CA 93721, or call (559) 600-4207 or email jshaw@FresnoCountyCA.gov.

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Activity Code (Internal Review):2384

Enclosures

Date Received: 1/21/22

CUP 3734 (Application No.)

Fresno County Department of Public Works and Planning

MAILING ADDRESS:
Department of Public Works and Planning
Development Services Division
2220 Tulare St., 6th Floor
Fresno, Ca. 93721

LOCATION:
Southwest corner of Tulare & "M" Streets, Suite A
Street Level
Fresno Phone: (559) 600-4497
Toll Free: 1-800-742-1011 Ext. 0-4497

APPLICATION FOR:

- ☐ Pre-Application (Type) _____
- ☐ Amendment Application
- ☐ Amendment to Text
- ■ Conditional Use Permit
- ☐ Variance (Class)/Minor Variance
- ☐ Site Plan Review/Occupancy Permit
- ☐ No Shoot/Dog Leash Law Boundary
- ☐ General Plan Amendment/Specific Plan/SP Amendment)
- ☐ Time Extension for _____
- ☐ Director Review and Approval
- ☐ for 2nd Residence
- ☐ Determination of Merger
- ☐ Agreements
- ☐ ALCC/RLCC
- ☐ Other _____

DESCRIPTION OF PROPOSED USE OR REQUEST:

Key Energy Storage, LLC proposes to construct and operate an energy storage facility and on-site support facilities on up to 208 acres of the 318-acre site. The Project would also include an overhead generation tie line, which would extend north to the adjacent PG&E Gates substation.

CEQA DOCUMENTATION: ■ EIR ~~Initial Study~~ ☐ PER ☐ N/A [redacted]

PLEASE USE FILL-IN FORM OR PRINT IN BLACK INK. Answer all questions completely. Attach required site plans, forms, statements, and deeds as specified on the Pre-Application Review. **Attach Copy of Deed, including Legal Description.**

LOCATION OF PROPERTY: South side of West Jayne Avenue
between Interstate 5 (I-5) to the west and South Lassen Avenue (State Route 269) to the east
Street address: N/A

APN: See "Additional APN(s)" Parcel size: 318 acres total Section(s)-Twp/Rg: S 4 - T 21S S/R 17 E

ADDITIONAL APN(s): 085-040-58S (158 acres); 085-040-36S (80 acres); 085-040-37S (80 acres)

I, [signature] (*signature*), declare that I am the owner, or authorized representative of the owner, of the above described property and that the application and attached documents are in all respects true and correct to the best of my knowledge. The foregoing declaration is made under penalty of perjury.

Owner (Print or Type)	Address	City	Zip	Phone
Ann Dresick Family Trust (APN 085-040-58S)	PO Box 1260, 19536 W. Jayne Ave.	Huron, CA	93234	(559) 280-7520
Rebecca Avellar Trust (APNs 085-040-36S and -37S)	466 W. Fallbrook Avenue, Suite 107	Fresno, CA	93711	(559) 313-5588
Applicant (Print or Type)	Address	City	Zip	Phone
Key Energy Storage, LLC	700 Universe Blvd.	Juno Beach, FL	33408	(619) 372-6142
Representative (Print or Type)	Address	City	Zip	Phone
John Dresick (APN 085-040-58S)	PO Box 1260, 19536 W. Jayne Ave.	Huron, CA	93234	(559) 280-7520
Rebecca Kaser (APNs 085-040-36S and -37S)	466 W. Fallbrook Avenue, Suite 107	Fresno, CA	93711	(559) 313-5588

CONTACT EMAIL: JDresick@dresick.com
RAvellar@stevemoorefarms.com

OFFICE USE ONLY (*PRINT FORM ON GREEN PAPER*)

Application Type / No.: CUP 3734 Fee: $ 9,123.00
Application Type / No.: Fee: $
Application Type / No.: Fee: $
Application Type / No.: Pre-Application fee credit Fee: $ -247.00
PER/Initial Study No.: Fee: $
Ag Department Review: Fee: $ 93.00
Health Department Review: Fee: $ 992.00
Received By: J.S. Invoice No.: 225920 TOTAL: $ 9,961.00

UTILITIES AVAILABLE:

WATER: Yes ■ / No ☐
Agency: Westlands Water District

SEWER: Yes ☐ / No ■
Agency: N/A

STAFF DETERMINATION: This permit is sought under Ordinance Section: _____

Related Application(s): _____

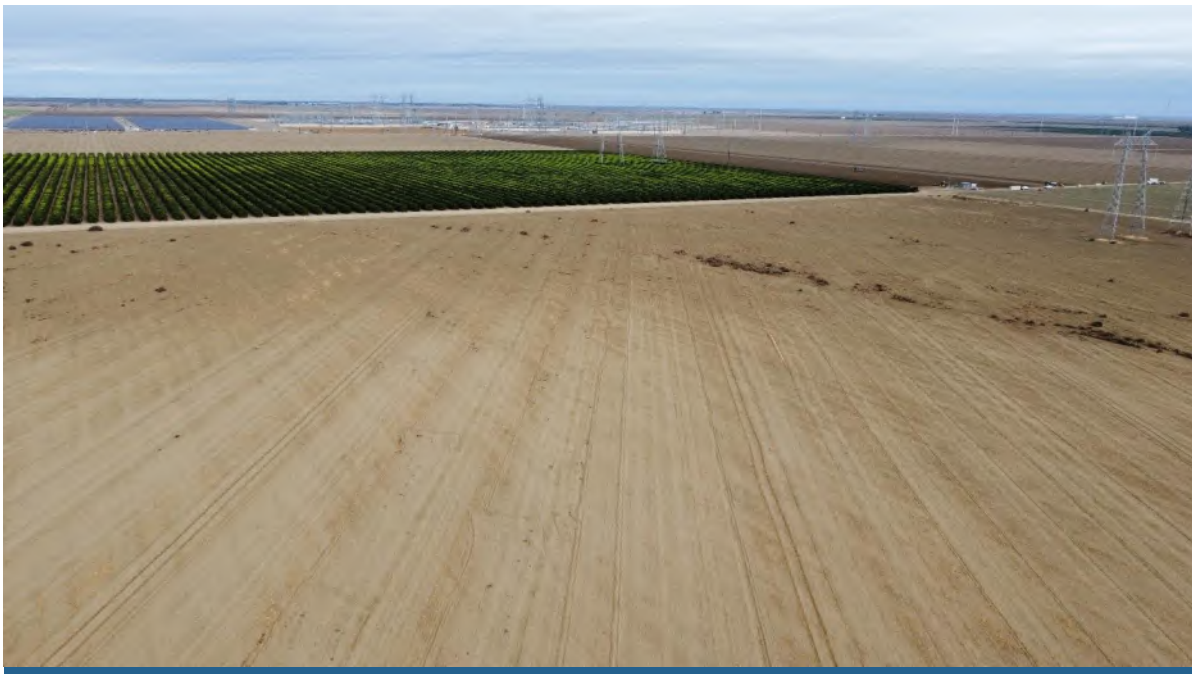
Zone District: _____

Parcel Size: _____

Sect-Twp/Rg: ____ - T____ S /R____ E
APN # ___ - ___ - ____
APN # ___ - ___ - ____
APN # ___ - ___ - ____
APN # ___ - ___ - ____

Attachment 5A

Project Description



Key Energy Storage Project

Project Description

prepared for

County of Fresno
Department of Public Works and Planning
2220 Tulare St. 6th Floor
Fresno, CA 93721
Attn: Jeremy Shaw, Planner

prepared with the assistance of

Key Energy Storage, LLC
700 Universe Boulevard
Juno Beach, Florida 33408
Attn: Sean Wazlaw / Patti Murphy

December 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Project Description

1.0 Summary

Key Energy Storage, LLC (Applicant) proposes to construct and operate the Key Energy Storage Project (Project) on approximately 208 acres in unincorporated Fresno County. The Project would include development of an energy storage system facility and associated on-site support facilities including a substation, inverters, collector lines, fencing, access roads, supervisory control and data acquisition (SCADA) system, and other ancillary facilities or equipment. The energy storage facility is anticipated to consist of lithium-ion batteries with the potential to store approximately three (3)-gigawatt (GW) of energy.[1] The Project would also include a 500-kilovolt (kV) overhead generation tie line (gen-tie line), which would extend north to the adjacent Pacific Gas and Electric (PG&E) Gates Substation. Buildout of the Project would occur in phases, with Phase I expected to come online in 2025, and Phase 2 expected to come online by 2026. After that, Phases 3 and 4 are expected to come online between 1 to 3 years after the previous phase, based on the region's increasing demand for energy storage. The timing of when phases would be online is approximate.

The Project would support state policies necessary to improve the reliability of California's energy grid. California has taken action to advance energy storage, including the passage of Assembly Bill 2514 and the resulting California Public Utilities Commission (CPUC) decision for energy storage procurement targets for each of the investor-owned utilities. Locally, Fresno County provides a large share of the region's renewable energy. The Project would substantially increase local energy storage capacity and address the limitations of the electric grid and the increasing demand for renewable energy. Layering energy storage systems into the energy grid improves the reliability of the grid and makes it more resilient to disturbances and peaks in energy demand. The Project and other energy storage system projects are used to supply power during brief disturbances, reduce outages and associated impacts to the community, and substitute for certain large footprint transmission and distribution upgrades.

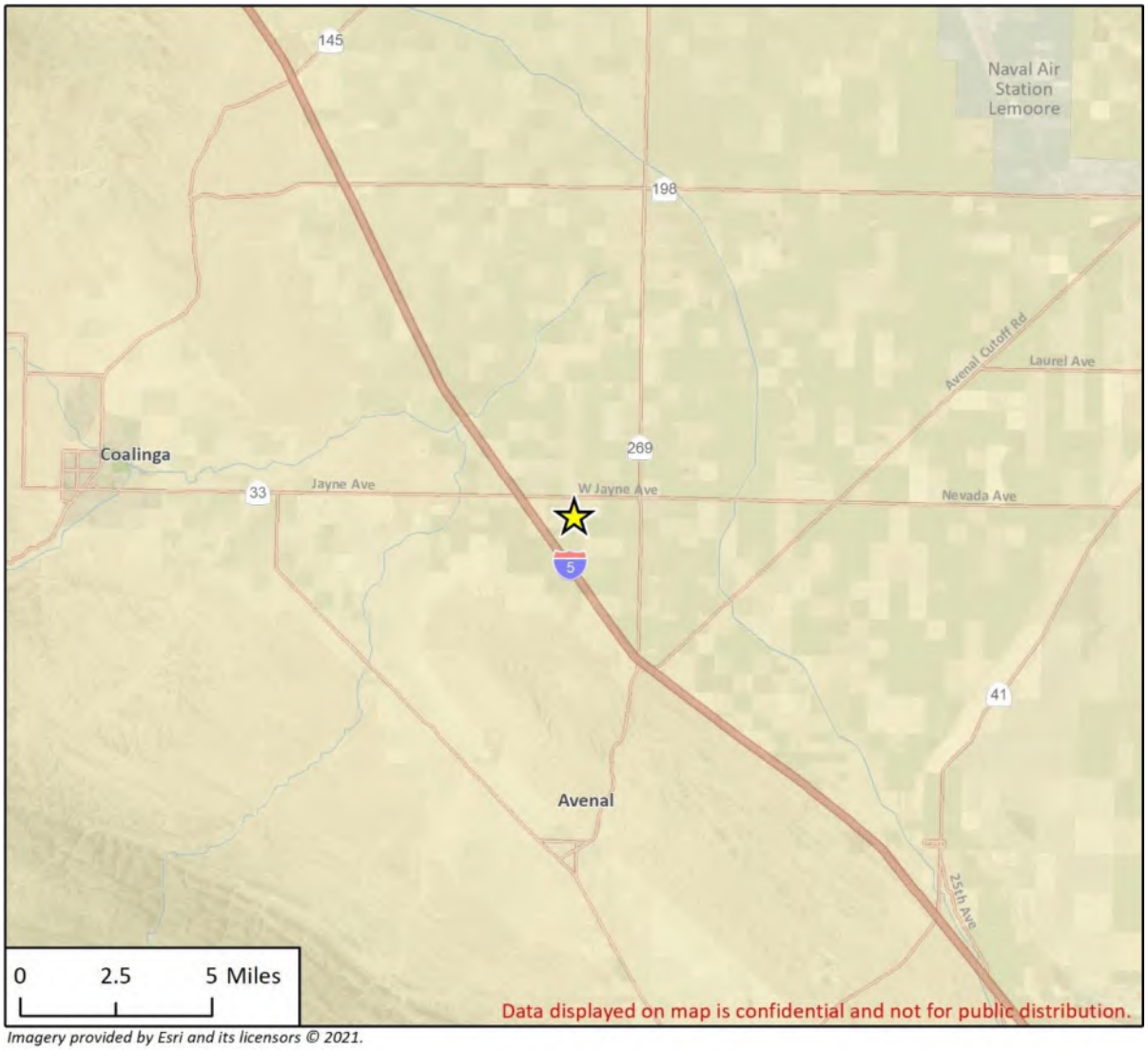
The following description has been prepared to provide an overview of the facilities that are proposed to be constructed, operated, and decommissioned as part of the Project.

2.0 Project Location

The Project site is in unincorporated Fresno County, approximately 11.5 miles east of the City of Coalinga, approximately 7.5 miles north of the City of Avenal, California, and approximately 0.4 miles west of Interstate 5 (Figure 1, Regional Location). The Project site is located southwest of the PG&E Gates Substation along West Jayne Avenue. The Project would be developed on up to 208 acres of a 318-acre site comprised of three parcels (Assessor Parcel Numbers [APNs] 085-040-36S, 085-040-37S, and 085-040-58S) (Figure 2, Project Site and Project Parcel Map).

[1] The megawatt capacity is an estimate based on currently available technology as the energy storage industry has quickly evolved in the last few years and is anticipated to continue to evolve. While the components and total megawatts of the Project may change, the overall size of the Project (up to approximately 208 acres) would remain consistent.

Figure 1 Regional Location



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Project Location

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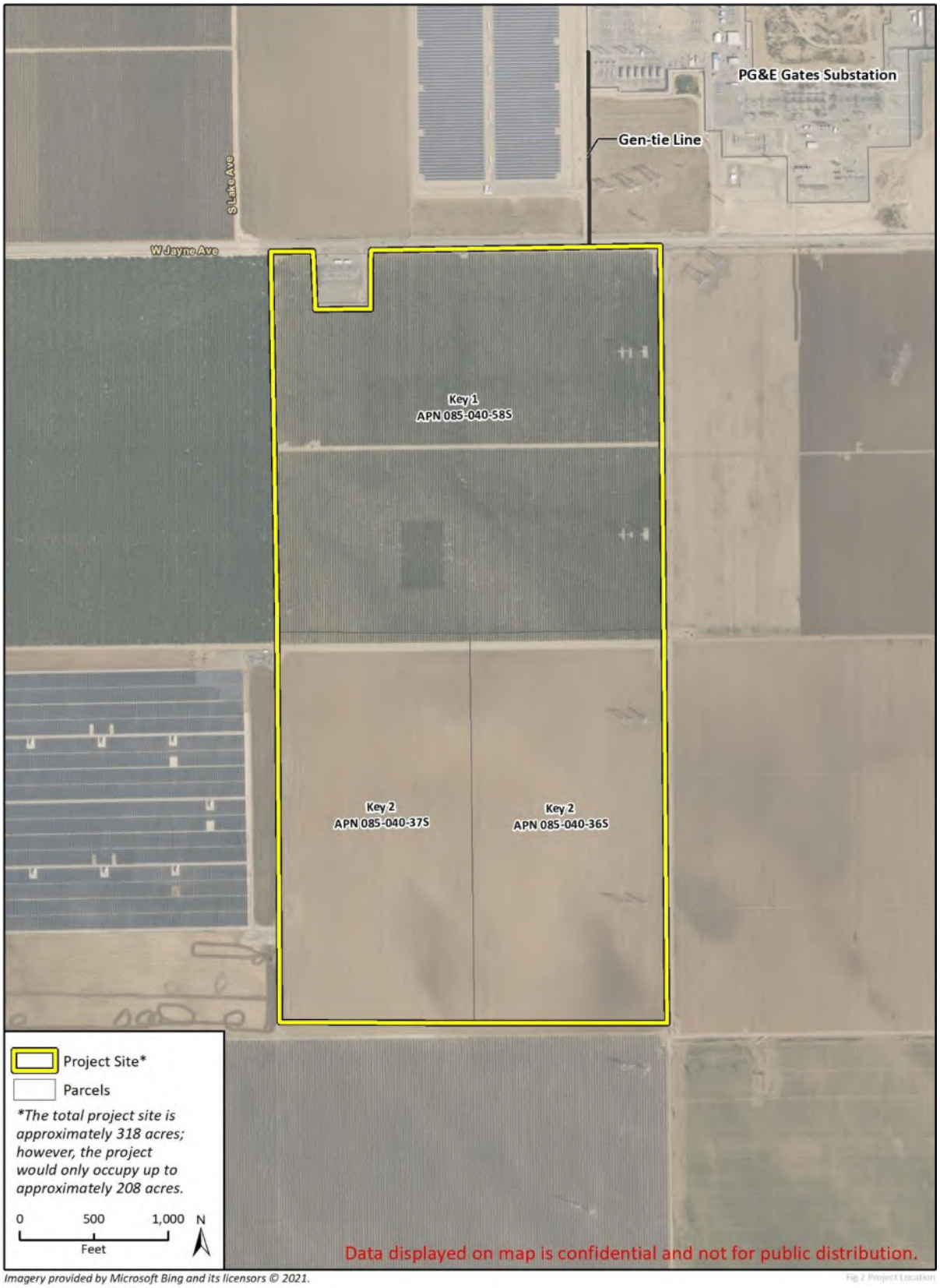
Figure 2 Project Site and Project Parcel Map



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Additional data provided by Fresno County, 2021.

The Project would occupy up to approximately 128 acres[2] within the 158-acre northern parcel (APN 085-040-58S; Key 1 site) and up to 80 acres within the two 80-acre southern parcels (160-acres total; APNs 085-040-36S and 085-040-37S; Key 2 site). The Key 1 site and Key 2 site are depicted are depicted on Figure 2.

3.0 Project Setting

The Fresno County General Plan land use designation for the Project site is Agriculture. The Project site is in the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District. The entire Project site is designated as Prime Farmland that is covered by Williamson Act Contracts.

The Key 1 portion of the site consists of land in agriculture production, an overhead gen-tie line along the western boundary, and high voltage transmission lines running north-to-south in the eastern portion of the site. The Key 2 portion of the site is currently fallow with high voltage transmission lines running north-to-south in the eastern portion of the site.

Existing site access from West Jayne Avenue is provided via agricultural roads along the eastern and western Project site boundaries.

4.0 Surrounding Land Uses

As shown in Figure 2, the Project site is bound by West Jayne Avenue to the north and unpaved agricultural access roads to the east, south, and west. The Project site is surrounded by agricultural uses to the west, south, and east. Solar facilities are located to the north and southwest and the PG&E Gates Substation is located to the northeast of the Project site. A small substation is also located immediately adjacent to the northwest Project site boundary.

5.0 Project Characteristics

The Project includes development of approximately 3 GW of energy storage on the Project site and a 500 kV overhead gen-tie line which would extend to the PG&E Gates Substation. The Project would include a lot line adjustment to merge parcels 085-040-36S, 085-040-37S, and 085-040-58S. Buildout of the Project would occur in phases, with Phase I expected to come online in 2025, and Phase 2 expected to come online by 2026. After that, Phases 3 and 4 are expected to come online between 1 to 3 years after the previous phase, based on the region's increasing demand for energy storage. Additionally, other components of the Project include a collector substation, inverters, collector lines, fencing, access roads, SCADA system, and other ancillary facilities and equipment. The Project components are detailed below.

It should be noted that the number of megawatts and the timing of when phases would be online are approximate. The selection of batteries that would be used is also not yet finalized; as such, the capacity and size of the containers may change, as may the ratings of the conversion equipment (inverters and transformers). The number of containers, inverters, and transformers and expected total megawatt capacity are an estimate based on currently available technology as the energy

[2] Although APN 085-040-58S is about 158 acres, existing transmission lines and a substation take up about 30 acres. Therefore, approximately 128 acres of APN 085-040-58S would be suitable for an energy storage facility.

storage industry has quickly evolved in the last few years and is anticipated to continue to evolve. While the components and total megawatts of the Project may change, the overall size of the Project (up to approximately 208 acres) would remain consistent.

5.1 Energy Storage System

The key components of the battery storage system are described below.

Batteries

Individual lithium-ion, or similar technology, battery cells form the core of the energy storage system. The battery cells are assembled either in series or parallel connection in sealed battery modules. The battery modules would be installed in self-supporting racks electrically connected either in a series or parallel to each other. The individual battery racks are connected in series or parallel configuration to deliver the energy storage system power rating. At this time, the battery technology for the Project has not yet been finalized; the battery type would be selected based on the technology available at the time of construction.

Enclosure Units and Controller

Multiple self-contained storage system enclosures would house the batteries, described above, as well as the battery storage system controller (Figure 3, Examples of Storage Units). The energy storage system controller is a multi-level control system designed to provide a hierarchical system of controls for the battery modules, power conversion system (PCS), medium voltage system, and up to the point of connection with the electrical grid. The controllers ensure that the energy storage system effectively responds to grid emergency conditions and provides a secondary safety system designed to safely shutdown the facility. The storage system enclosure would also house required heating, ventilation, and air conditioning (HVAC) and fire protection systems. Enclosure height would not exceed 25 feet.

Heating, Ventilation, and Air Conditioning (HVAC) Units

Each enclosure unit would be equipped with HVAC systems for thermal management of the batteries. Power for the HVAC would be provided through a connection to the on-site station service transformer with connection lines installed above and/or below ground.

Fire Suppression Systems

Fire detection measures would be incorporated in the Project design in accordance with National Fire Protection Association safety standards, as well as Fresno County requirements.

Figure 3 Examples of Energy Storage Units

Power Conversion System

The PCS consists of an inverter, protection equipment, direct current (DC) and alternating current (AC) circuit breakers, filter equipment, equipment terminals, and connection cabling system. Electric energy is transferred from the existing power grid to the Project batteries during a battery charging cycle, and from the Project batteries to the power grid during a battery discharge cycle. The PCS converts electric energy from AC to DC when the energy is transferred from the grid to the battery, and from DC to AC when the energy is transferred from the battery to the grid. The energy conversion is enabled by a bi-directional inverter that connects the DC battery system to the AC electrical grid.

The PCS would also include a transformer that converts the AC side output of the inverter to medium AC voltage to increase the overall efficiency of the energy storage system and to protect the PCS in the event of system electrical faults.

5.2 Project Substation

The Project substation would be the termination point of the collection system of 34.5 kV AC electricity. The power to and from the energy storage system would be passed through a final interconnection step-up transformer to convert it from 34.5 kV to 500 kV. The open-air substation is anticipated to be constructed adjacent to the energy storage facilities in the northern portion of the Project site. The footprint of the on-site Project substation would be approximately 5.14 acres. The specific size and equipment for the substation would be finalized at the detailed engineering stages as the Project progresses. It is assumed that PG&E would have nearby suitable distribution lines to provide the Project site with auxiliary power as required. An auxiliary generator may be used for emergency power.

5.3 Generation Transmission Line

The energy would be transported to and from the Project substation to the existing PG&E Gates Substation through a proposed approximately 0.3-mile-long gen-tie line. The gen-tie line would extend from the northwest corner of the Project site to the PG&E Gates Substation to the north, as shown in Figure 2. The 500 kV gen-tie transmission line would include concrete or steel pole structures up to 150 feet tall and spaced approximately every 500 feet. The poles would carry one conductor per phase and allow the line to maintain a minimum 30-foot vertical clearance to the ground. The number and height of the poles, as well as the type of conductor, would be finalized during detailed design.

5.4 Ancillary Facilities

Site Access and Parking

Access, including emergency access, onto the Project site would be provided from West Jayne Avenue and the existing agricultural access roads that border and bisect the Project site. Access roads would be gravel or aggregate base depending on the final site geotechnical report. Access would be provided via drive-through gates at multiple locations within the Project site. Site access would comply with the CalFire and/or Fresno County Fire Protection District requirements.

On-site parking spaces would be provided as needed, in accordance with Fresno County requirements.

Perimeter Fence

The perimeter of the Project site would be enclosed by a 6-foot-tall chain-link fence topped with 1 foot of 3-strand barbed wire. The purpose of the fence would be to prevent unauthorized access to the site. In addition, an approximately 8-foot-high perimeter security fence topped with approximately 1 foot of barbed wire would be installed around the on-site substation.

Signage

A small sign would be installed at the main entrance off West Jayne Avenue and would read "Key Energy Storage." The sign would be sized in accordance with Fresno County requirements. In addition, required safety signs to identify high voltage within the facility, as well as information for emergency services, would be installed on the fence near the entrance and at the gate.

Lighting

Low-elevation (less than 14-foot in height), controlled security lighting would be installed at the access gate and the entrance to the energy storage structures. The lighting would only switch on when personnel enter the area (through either motion-sensor or manual activation [switch]). All safety and emergency services signs would be lit when the lights are on. The lighting would be shielded so the light is directed downward. Electrical power to supply the access gate and lighting would be obtained from PG&E. Lighting would be only in areas where it is required for safety, security, or operations. All lighting would be directed on site and would include shielding as necessary to minimize illumination of the night sky or spillover onto adjacent properties.

Stormwater Facilities

Onsite stormwater detention and treatment systems would be provided to meet County and State Water Resources Control Board requirements. Proposed stormwater facilities include a drainage swale along the eastern Project boundary (constructed during Phase 1), a retention basin at the southeast corner of parcel 085-040-58S (constructed during Phase 1), and a retention basin at the southeast corner of parcel 085-040-37S (constructed during Phase 4).

Utility Easements

Overhead easements would be required where the gen-tie lines cross West Jayne Avenue and the PG&E property.

Site Buffers

Per the Fresno County Solar Facility Guidelines, the Project would achieve a minimum 50-foot buffer to adjacent properties by excluding structural improvements and equipment (excluding fencing) from within 50 feet of the outside boundary of the Project site.

Landscaping

The Project would not include landscaping.

6.0 Construction

6.1 Construction Schedule

Construction of Phase 1 is anticipated to begin in 2024. Phase 1 construction is anticipated to take 12 months and to be completed in 2025. Construction of Phase 2 is anticipated to begin in 2025. Phase 2 construction is also anticipated to take 12 months and to be completed in 2026. Phases 3 and 4 are expected to come online between 1 to 3 years after the previous phase, with an associated construction duration of 12 months each, based on the region's increasing demand for energy storage. Construction of the phases is not anticipated to overlap. Phases 1 through3 would be constructed on the Key 1 site, and Phase 4 would be constructed on the Key 2 site.

6.2 Construction Access and Deliveries

Delivery of material and supplies would reach the Project site through on-road truck delivery through Interstate 5 to West Jayne Avenue. The majority of the truck deliveries would be for the energy storage enclosures and PCS installation, as well as any aggregate material that may be required for foundations. These loads would typically be limited to 40 tons, or 80,000 pounds, with a typical cargo load of approximately 25 tons, or 50,000 pounds. Typically, rock is delivered in "bottom dump trucks" or "transfer trucks" with six axles. Low-bed transport trucks would transport the construction equipment to the site as needed. The size of the low-bed trucks (axles for weight distribution) would depend on the equipment transported. The heaviest delivery loads to the site would be for the step-up transformer, which may weigh up to 160,000 pounds.

6.3 Construction Activities

Construction would be primarily composed of the following activities:

- **Site Preparation:** The site would be prepared for construction. For example, existing on-site crops, if any, would be removed. Rough grading may be performed where required to accommodate the support structures and access roads. Retention basins, if required, would be created for hydrologic control. Access roads would be gravel or aggregate base depending on the final site geotechnical report. A temporary staging area, anticipated to be located on the southwest end of the site, would be constructed to hold materials and construction equipment.
- **Fencing:** A perimeter security fence would be installed around the energy storage system facility. Trash would be removed from the fencing as required. A perimeter security fence would also be installed around the Project substation.
- **Electrical Work:** A substation pad for the step-up transformer would be poured, followed by the installation of the medium-voltage stations, wiring of the modules through combiner boxes, and construction of the Project substation and grid interconnection. The medium-voltage stations would sit on concrete foundations or driven piles, pending final design.

Each phase of the Project is anticipated to be built over an approximately 12-month period from the onset of site preparation activities through testing and commissioning of the facility. The project substation would be constructed during Phase 1. Estimated durations of construction activities are presented in Table 1.

Table 1 Construction Vehicle Trips

Construction Phase	Phase Duration (weeks)	Construction Workforce (Number of Employees)	One-Way Vehicle Trips		
			Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips
Phase 1 (27 acres)					
Site Preparation	2	20	40	2	0
Project Substation Site Preparation	4	10	20	4	0
Grading	4	20	40	2	0
Project Substation Site Grading	2	10	20	4	0
Energy Storage Enclosure Installation	25	60	120	20	0
Project Substation Installation	16	30	60	40	0
Gen-tie Foundation and Tower Erection	1	20	40	4	0
Gen-Tie Stringing and Pulling	2	20	40	4	0
Phase 2 (20 acres)					
Site Preparation	2	20	40	2	0
Grading	4	20	20	2	0
Energy Storage Enclosure Installation	25	60	120	20	0
Phases 3 and 4 (50 and 57 acres)					
Site Preparation	4	20	40	3	0
Grading	8	20	40	3	0
Energy Storage Enclosure Installation	40	75	150	40	0

Note: Construction trips during Site Preparation, Grading, and Energy Storage Enclosure Installation would be slightly less for Phase 2 than Phase 1 and would be slightly less for Phase 3 than Phase 4 due to the difference is acreage for each phase. However, Phases 1 and 2 are assumed to generate the same number of trips and Phases 3 and 4 are assumed to generate the same number of trips, which is a conservative assumption.

As shown in Table 1, Project construction is anticipated to require up to 75 construction workers per day. The maximum average daily worker trips would be 150 one-way trips per day and the maximum average daily vendor truck trips would be 40 one-way trips per day. No soil haul trips are anticipated to be required. It is anticipated that construction crews would work 8 or 10 hours per day, with work occurring Monday through Friday. Overtime and weekend work would be used only as necessary to meet scheduled milestones or accelerate schedule and would comply with applicable California labor laws.

Although the Project site is fairly level, grading would be required throughout most of the site, especially for the construction of roads, on-site substation, the energy storage enclosures, and inverter pads. This would be accomplished with scrapers, graders, water trucks, dozers, and

compaction equipment. The enclosure modules would be off-loaded and installed using cranes, boom trucks, forklifts, rubber-tired loaders, rubber-tired backhoes, and other small- to medium-sized construction equipment, as needed. Construction equipment would be delivered to the site on low-bed trucks unless the equipment can be driven to the site (e.g., boom trucks).

At locations where gen-tie poles would be installed, minor cuts may be required where the foundation would be installed. Minor earthwork would also occur to install aggregate base access roads. The surface of the roads would be at-grade to allow water to sheet flow across the site as it currently does.

6.4 Staging Areas

Staging and laydown areas would all be located on the Project site. Specific locations would be determined by the construction contractor.

6.5 Erosion and Sediment Control and Pollution Prevention

As the construction of the Project would result in disturbance of an area greater than 1 acre, the Applicant would be required to obtain coverage under the State Water Resources Control Board (SWRCB) *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-009-DWQ, NPDES No. CAS000002 (Construction General Permit). To enroll under this permit, the Applicant would prepare a Stormwater Pollution Prevention Plan (SWPPP), which would be based on the final engineering design. The SWPPP would be prepared by a qualified engineer or erosion control specialist and would be implemented during construction. The SWPPP would include best management practices (BMP), including Erosion Control, Sediment Control, and Good Housekeeping BMPs. The BMPs would include dewatering procedures, stormwater runoff quality control measures, concrete waste management, watering for dust control, and construction of perimeter silt fences, as needed. The SWPPP would be submitted to the SWRCB and Fresno County prior to issuance of any building or grading permits.

7.0 Operations and Maintenance

Once constructed, the Project would operate 7 days per week, 365 days per year. The facility would be operated remotely. Project operations would be monitored remotely through the SCADA system. Periodic augmentation of batteries within the Project site would occur. Only occasional, on-site maintenance is expected to be required following commissioning, including replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. No permanent sanitary facilities would be required.

During operation of the Project substation, operation and maintenance staff would visit the substation periodically for switching and other operation activities. Maintenance trucks would be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance.

Routine operations would require one or two workers in a light utility truck to visit the facility on a weekly basis. Typically, one major maintenance inspection would take place annually.

8.0 Decommissioning

8.1 Decommissioning Schedule

The Project is anticipated to have an operating life of up to 30 years. Decommissioning is anticipated to start in approximately 2055 and take up to 12 months. Decommissioning equipment and personnel would be similar to or less than that required for construction.

8.2 Decommissioning of Equipment

The Project components, including the energy storage system and on-site substation, would be recycled when the Project's operating life is over. Most parts of the proposed system are recyclable. Batteries include lithium-ion, which degrades but can be recycled or repurposed. Energy storage enclosures would include steel or aluminum, with concrete foundations which can be recycled. Local recyclers are available, and metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage.

Fuel, hydraulic fluids, and oils would be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels would be rinsed and transferred to tanker trucks. Other items that are not feasible to remove at the point of generation, such as lubricants, paints, and solvents, would be kept in a locked utility structure with integral secondary containment that meets applicable requirements for hazardous waste storage until removal for proper disposal and recycling. It is anticipated that all oils and batteries would be recycled at an appropriate facility. Site personnel involved in handling these materials would be trained to properly handle them. Enclosures used to store hazardous materials would be inspected regularly for any signs of failure or leakage. Transportation of the removed hazardous materials would comply with applicable regulations for transporting hazardous materials, including those set by the U.S. Department of Transportation, U.S. Environmental Protection Agency, California Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal.

8.3 Erosion and Sediment Control and Pollution Prevention

Decommissioning activities would involve exposure and disturbance of soils; therefore, measures for erosion and sediment control would be implemented in accordance with the applicable regulations in effect at that time, which are anticipated to require implementation of a SWPPP and BMPs, or similar measures.

8.4 Site Reclamation

Prior to completion of decommissioning, the Project site would be restored to its current agricultural condition. Prior to decommissioning, a Final Reclamation Plan containing details regarding site reclamation and decommissioning would be submitted by the Applicant to Fresno County. All roads and other areas compacted during original construction or by equipment used for decommissioning would be tilled in a manner adequate to restore the sub-grade material to the proper density and depth consistent with adjacent properties. Low areas would be filled with clean, compatible sub-grade material. After proper sub-grade depth is established, locally sourced (from the City of Fresno or other location within 50 miles of the Project site) topsoil would be placed to a

depth and density consistent with adjacent properties. Locally sourced compost would be applied to the topsoil, and the entire site would be tilled to further loosen the soil and blend in the compost. An appropriate seed mixture would be broadcast or drilled across the site and weed-free mulch would be applied to stabilize the soil and retain moisture for seedling germination and establishment.

9.0 Water Use

Water consumption during construction and decommissioning would be needed for dust suppression and earthwork. It is anticipated that total water use during construction would be approximately 196 acre-feet (34 acre-feet for Phase 1, 26 acre-feet for Phase 2, 73 acre-feet during Phase 3, and 63 acre- feet during Phase 4). During operation, water use would be minimal and only as needed. For example, water would be used for fire suppression, if needed. The energy storage facility would be uninhabited with no bathroom facilities or running water.

Water would most likely be delivered by truck from an off-site source. However, if it is determined that water could be provided by on-site groundwater through an improved existing well or a new well permitted and drilled (if necessary), a water supply assessment would be conducted during the environmental review process. An on-site diesel generator may be used to power pumps for well water use during construction. During construction, water pumped directly into 2,000–4,000-gallon water trucks may be stored in overhead, approximately 12,000-gallon water storage towers/tanks (up to 16 feet tall) to assist in the availability of water for trucks and to expedite filling. Any existing wells on site that would not be used for the Project would be capped in place in accordance with Fresno County requirements.

10.0 Wastewater

During construction and decommissioning, restroom facilities would be provided by portable units to be serviced by licensed providers. No permanent sanitary facilities would be required.

Attachment 5B

Operational Statement

Operational Statement

1 Nature of the Operation

Key Energy Storage, LLC (Applicant) proposes to construct and operate the Key Energy Storage Project (Project) on approximately 208 acres in unincorporated Fresno County. The Project would include development of an energy storage system facility and associated on-site support facilities including a substation, inverters, collector lines, fencing, access roads, supervisory control and data acquisition (SCADA) system, and other ancillary facilities or equipment. The energy storage facility is anticipated to consist of lithium-ion batteries with the potential to store approximately three (3)-gigawatt (GW) of energy.[1] The Project would also include a 500-kilovolt (kV) overhead generation tie line (gen-tie line), which would extend north to the adjacent Pacific Gas and Electric (PG&E) Gates Substation.

2 Operational Time Limits

The Project would operate 7 days per week, 365 days per year. Operations would be monitored remotely through the SCADA system and not require a staff presence. However, minor routine maintenance would be conducted on-site weekly and one major maintenance inspection would occur annually. Maintenance would occur during daylight hours.

3 Number of Customers and Visitors

The site would not receive customers or visitors.

4 Number of Employees

The facility would be unmanned. Occasional site visits would occur for security and maintenance. Site maintenance is anticipated to require one or two workers to visit the facility on a weekly basis. On intermittent occasions (e.g., annually), the presence of additional workers may be required for repairs or specialized maintenance, mainly during daylight hours, as needed. However, due to the self-operating nature of the facility, such actions would likely occur infrequently.

5 Service and Delivery Vehicles

The facility would not receive any regular deliveries during operations. Site maintenance/service visits would require one or two workers in a light utility truck to visit the facility on a weekly basis.

[1] The megawatt capacity is an estimate based on currently available technology as the energy storage industry has quickly evolved in the last few years and is anticipated to continue to evolve. While the components and total megawatts of the Project may change, the overall size of the Project (up to approximately 208 acres) would remain consistent.

6 Site Access

Access to the Project site would be from the main entrance along West Jayne Avenue, a public, paved road as well as from the existing agricultural access roads that border and bisect the Project site.

7 Site Parking

As the facility will be unmanned and not receive customers or visitors, no customer parking is required or proposed. However, on-site parking spaces for maintenance staff would be provided as needed, in accordance with Fresno County requirements.

8 Goods Sold Onsite

No goods would be grown, produced, or sold onsite.

9 Equipment

The Project would include an energy storage system facility and associated on-site support facilities including a substation, inverters, collector lines, fencing, access roads, and SCADA system, and a connection to the PG&E-owned Gates Substation. Major Project features are described below and displayed on the submitted Site Plan.

Batteries

Individual lithium-ion, or similar technology, battery cells form the core of the energy storage system. The battery cells are assembled either in series or parallel connection in sealed battery modules. The battery modules would be installed in self-supporting racks electrically connected either in a series or parallel to each other. The individual battery racks are connected in series or parallel configuration to deliver the energy storage system power rating. At this time, the battery technology for the Project has not yet been finalized; the battery type would be selected based on the technology available at the time of construction.

Enclosure Units and Controller

Multiple self-contained storage system enclosures would house the batteries, described above, as well as the battery storage system controller (Figure 1, Examples of Storage Units). The energy storage system controller is a multi-level control system designed to provide a hierarchical system of controls for the battery modules, power conversion system (PCS), medium voltage system, and up to the point of connection with the electrical grid. The controllers ensure that the energy storage system effectively responds to grid emergency conditions and provides a secondary safety system designed to safely shutdown the facility. The storage system enclosure would also house required heating, ventilation, and air conditioning (HVAC) and fire protection systems. Enclosure height would not exceed 25 feet.

Figure 1 Examples of Energy Storage Units

Heating, Ventilation, and Air Conditioning Units

Each enclosure unit would be equipped with HVAC systems for thermal management of the batteries. Power for the HVAC would be provided through a connection to the on-site station service transformer with connection lines installed above and/or below ground.

Power Conversion System

The PCS consists of an inverter, protection equipment, direct current (DC) and alternating current (AC) circuit breakers, filter equipment, equipment terminals, and connection cabling system. Electric energy is transferred from the existing power grid to the Project batteries during a battery charging cycle, and from the Project batteries to the power grid during a battery discharge cycle. The PCS converts electric energy from AC to DC when the energy is transferred from the grid to the battery, and from DC to AC when the energy is transferred from the battery to the grid. The energy conversion is enabled by a bi-directional inverter that connects the DC battery system to the AC electrical grid.

The PCS would also include a transformer that converts the AC side output of the inverter to medium AC voltage to increase the overall efficiency of the energy storage system and to protect the PCS in the event of system electrical faults.

Project Substation

The Project substation would be the termination point of the collection system of 34.5 kV AC electricity. The power to and from the energy storage system would be passed through a final interconnection step-up transformer to convert it from 34.5 kV to 500 kV. The open-air substation is anticipated to be constructed adjacent to the energy storage facilities in the northern portion of the Project site. The footprint of the on-site Project substation would be approximately 5.14 acres. The specific size and equipment for the substation would be finalized at the detailed engineering stages as the Project progresses. It is assumed that PG&E would have nearby suitable distribution lines to provide the Project site with auxiliary power as required. An auxiliary generator may be used for emergency power.

Generation Transmission Line

The energy would be transported to and from the Project substation to the existing PG&E Gates Substation through a proposed approximately 0.3-mile-long gen-tie line. The gen-tie line would extend from the northwest corner of the Project site to the PG&E Gates Substation to the north. The 500 kV gen-tie transmission line would include concrete or steel pole structures up to 150 feet tall and spaced approximately every 500 feet. The poles would carry one conductor per phase and allow the line to maintain a minimum 30-foot vertical clearance to the ground. The number and height of the poles, as well as the type of conductor, would be finalized during detailed design.

10 Supply and Material Use and Storage

No supplies or materials would routinely be used at the site, and battery storage would occur as described above. Other items required for periodic maintenance would be carried on maintenance vehicles.

11 Appearance, Noise, Glare, Dust, and Odor

The facility would include energy storage containers similar to what is shown in Figure 1. The substation and gen-tie line would be visually consistent with the adjacent PG&E Gates substation and its related infrastructure. The Project would generate minimal noise from HVAC units, inverters, and transformers. The substation may also include an auxiliary generator for emergency power. No glare, dust, or odor would be generated by the Project during operation.

12 Solid and Liquid Waste

The facility will not generate solid or liquid wastes. The site will be unmanned so no restrooms would be required and no sewer connection or septic system would be installed. Any solid wastes generated during maintenance activities would be removed by maintenance crews when they depart the site.

13 Water Usage

The site will be unmanned and water use would be minimal and only as needed during operation. For example, water would be used for fire suppression, if needed. The energy storage facility would be uninhabited with no bathroom facilities or running water.

14 Advertising

No advertising is proposed. A small sign would be installed at the main entrance off West Jayne Avenue to allow for the identification of the Project owner and for safety and security purposes. The sign would read “Key Energy Storage” and would conform to Fresno County signage requirements.

15 Existing or New Buildings

The Project site contains no existing buildings, and no new habitable structures are proposed. New construction on the site would be limited to the energy storage system facility and associated on-site support facilities. See Site Plan.

16 Buildings Used for Operations

There are no existing buildings on the site and no new habitable structures are proposed as part of the Project.

17 Lighting

Outdoor lighting would be limited to small-scale security lighting at the entry and any domestic fixtures required by Building Code or other Code requirements at electrical equipment, such as the substation.

18 Landscape and Fencing

The perimeter of the Project site and substation would be enclosed by a chain-link fence topped with barbed wire. The Project does not include landscaping.

19 Additional Project and Operations Information

Stormwater Facilities

Onsite stormwater detention and treatment systems would be provided to meet County and State Water Resources Control Board requirements. As shown on the Site Plan, proposed stormwater facilities include a drainage swale along the eastern Project boundary (constructed during Phase 1), a retention basin at the southeast corner of parcel 085-040-58S (constructed during Phase 1), and a retention basin at the southeast corner of parcel 085-040-37S (constructed during Phase 4).

Utility Easements

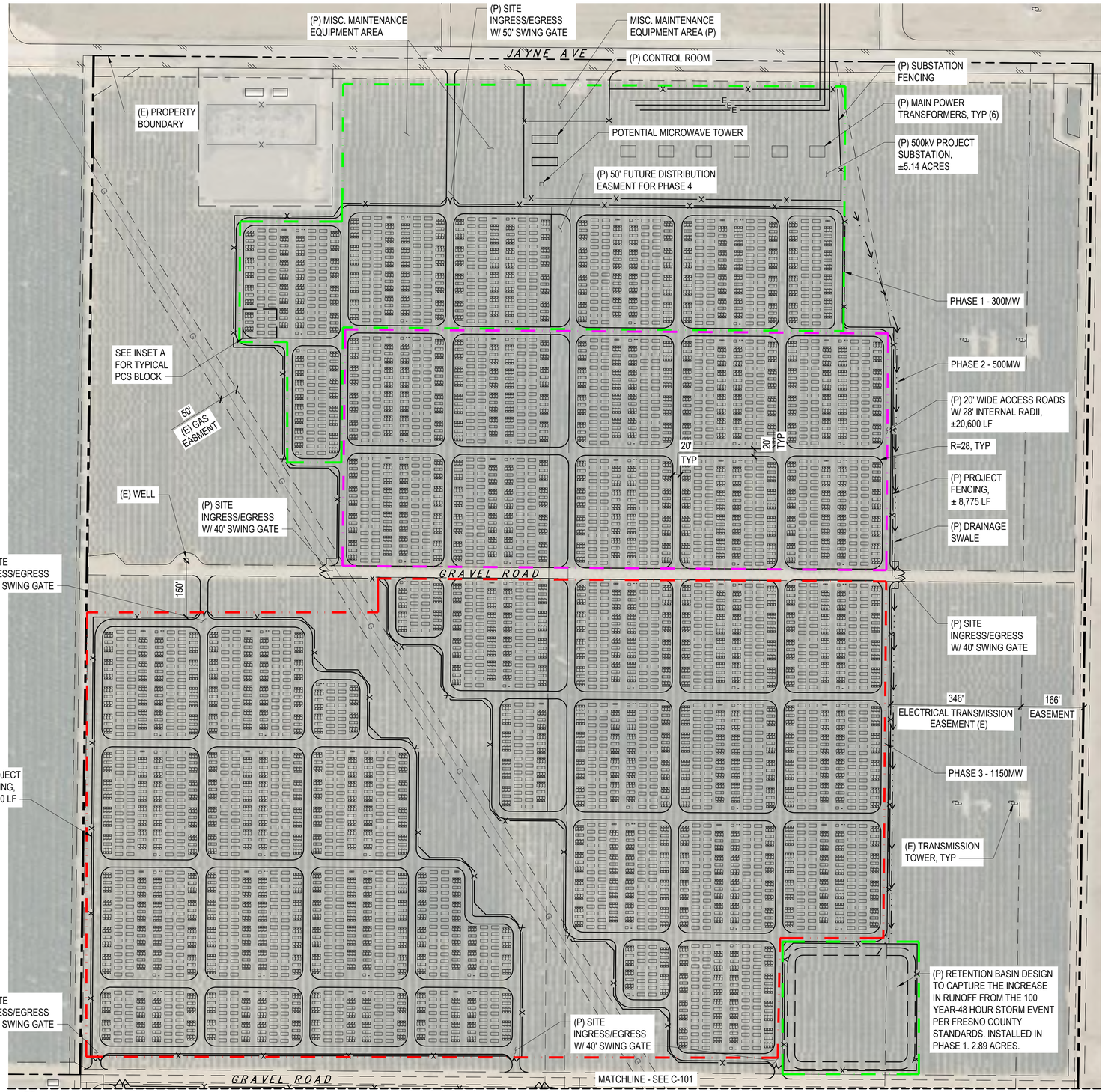
Overhead easements would be required where the gen-tie lines cross West Jayne Avenue and the PG&E property.

20 Owners and Officers

Contact information for the owner, applicant, and representative is provided in the CUP Application Form in Attachment 2.

Attachment 6

Site Plans

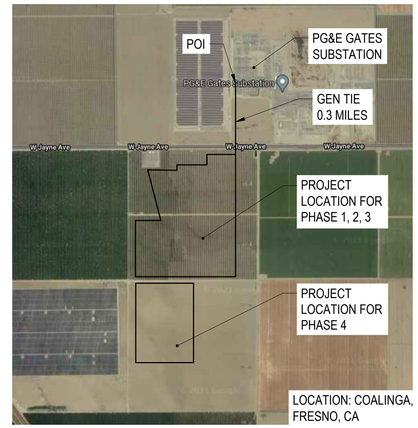


1 C-100 BESS PLANT LAYOUT AND SUBSTATION GENERAL ARRANGEMENT

SCALE: 1" = 150'-0"

NORTH

1"=150'-0" 0 75 150 300 450



VICINITY MAP

PHASE	POWER @ POI (SEE NOTE 2)	PCS (BESS INVERTER & TRANSFORMER) QUANTITY	ACRES PER PHASE
1	300 MW	96	27 (NOTE A)
2	500 MW	160	20.6
3	1150 MW	368	57.6
4	1050 MW	336	50 (NOTE B)
TOTAL	3000 MW	960	155.2

NOTE A: INCLUDES RETENTION BASIN AND SUBSTATION ON C-100.
NOTE B: INCLUDES RETENTION BASIN ON C-101.

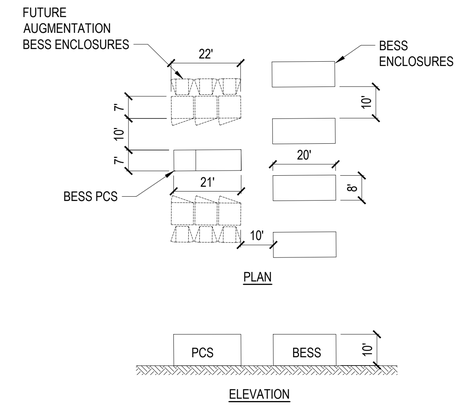
SYSTEM SUMMARY

NOTES:

1. DIMENSIONS ARE APPROXIMATE AND MAY VARY BASED ON FINAL DESIGN.
2. SCADA SYSTEM HAS ACTIVE POWER CONTROL CAPABILITY TO LIMIT TOTAL PLANT INPUT AND OUTPUT TO PREVENT EXCEEDING THE MAXIMUM INTERCONNECTION CAPACITY (FOR EACH PHASE). ADDITIONAL BESS EQUIPMENT IS SHOWN TO ACCOUNT FOR POTENTIAL CHANGES IN OPERATIONAL STRATEGY.

ABBREVIATIONS:

BESS	BATTERY ENERGY STORAGE SYSTEM
PCS	POWER CONVERSION SYSTEM
POI	POINT OF INTERCONNECTION



INSET A - TYPICAL PCS BLOCK

COFFMAN ENGINEERS
1939 Harrison Street, Suite 320
Oakland, CA 94612
ph 510.251.9578
www.coffman.com

NEXTERA
NEXTera ENERGY RESOURCES

KEY BESS

REV	DATE	DESCRIPTION

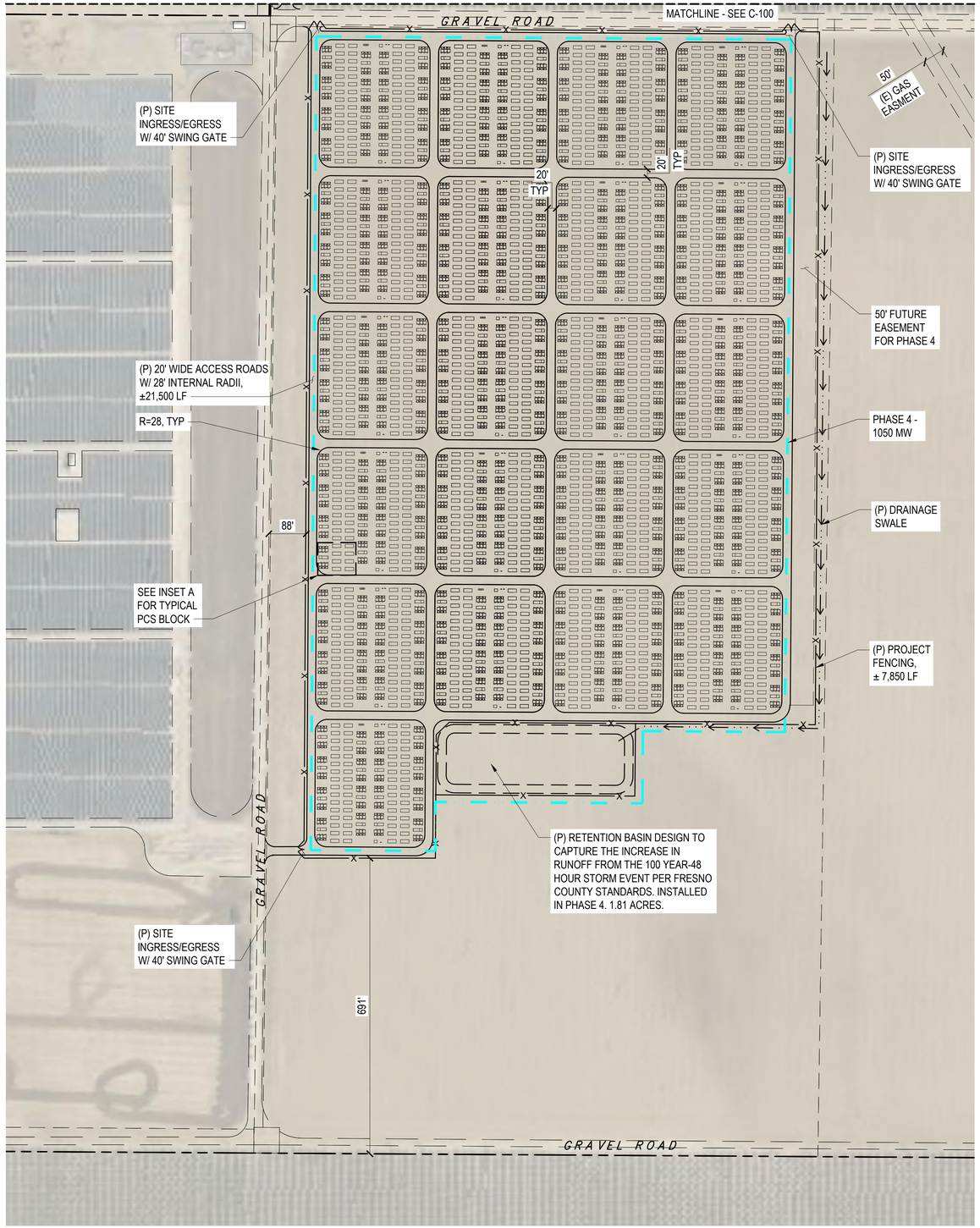
PROJ. NO.	212064
DRAWN	RJG
CHECKED	DST
DATE	11/05/2021

SHEET TITLE:

KEY BESS SITE PLAN & GENERAL ARRANGEMENT

SHEET NO:

C-100

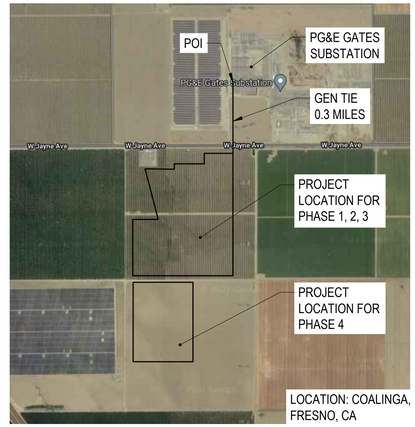


NORTH

1 C-101 BESS PLANT LAYOUT AND SUBSTATION GENERAL ARRANGEMENT

SCALE: 1" = 150'-0"

1"=150'–0" 0 75 150 300 450



VICINITY MAP

PHASE	POWER @ POI (SEE NOTE 2)	PCS (BESS INVERTER & TRANSFORMER) QUANTITY	ACRES PER PHASE
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NOTE A: INCLUDES RETENTION BASIN AND SUBSTATION ON C-100.			
NOTE B: INCLUDES RETENTION BASIN ON C-101.			

SYSTEM SUMMARY

NOTES:

1. DIMENSIONS ARE APPROXIMATE AND MAY VARY BASED ON FINAL DESIGN.
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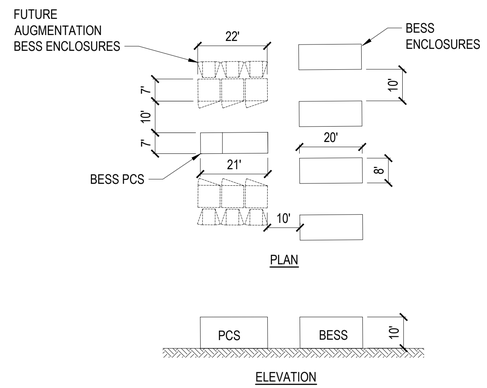

INSET A - TYPICAL PCS BLOCK

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NEXTera ENERGY RESOURCES

KEY BESS

REV	DATE	DESCRIPTION

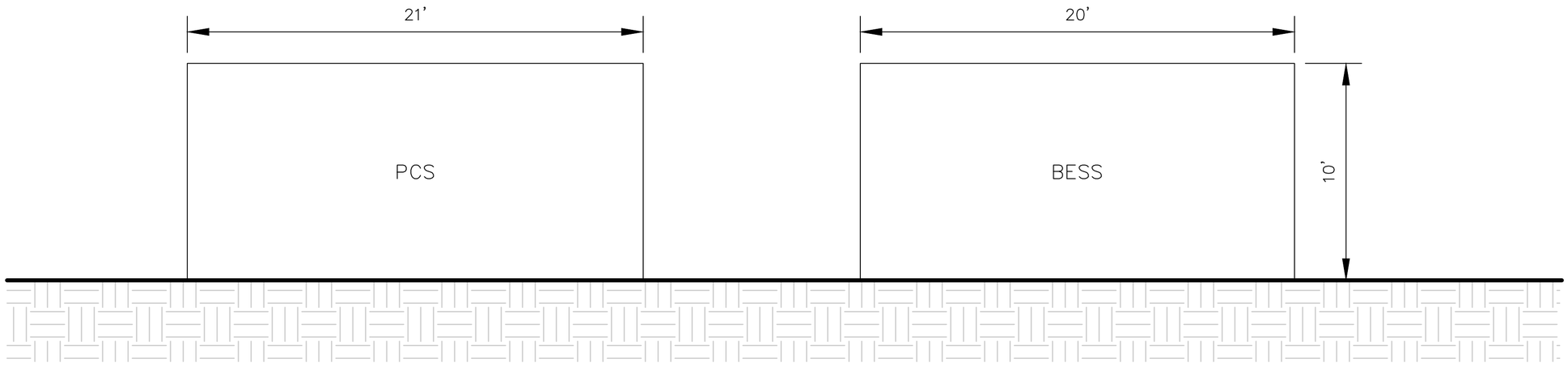
PROJ. NO.	212064
DRAWN	RJG
CHECKED	DST
DATE	11/05/2021

SHEET TITLE:

KEY BESS SITE PLAN & GENERAL ARRANGEMENT

SHEET NO:

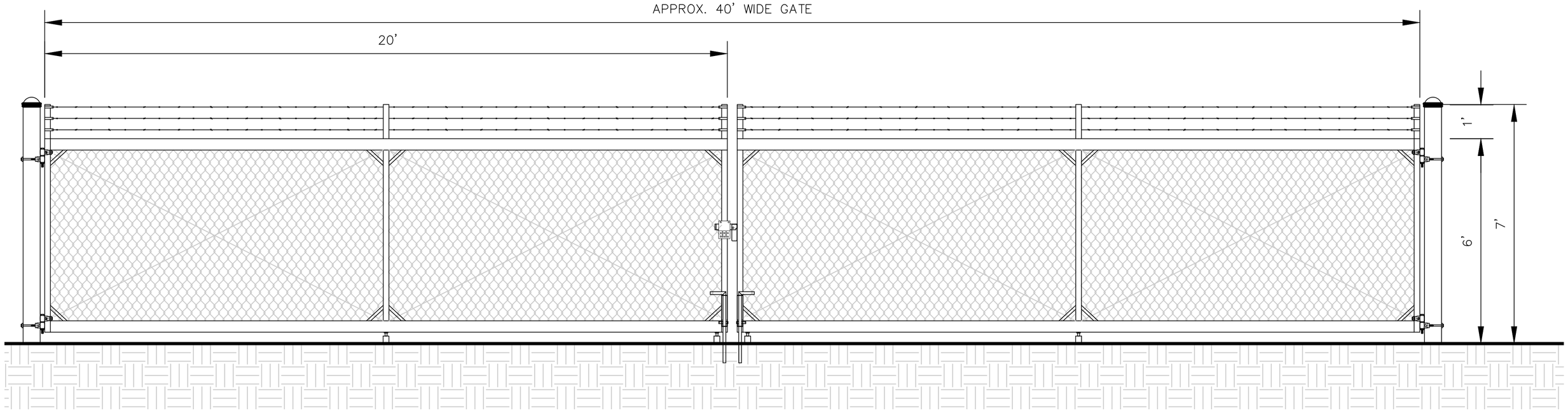
C-101



1 TYPICAL PCS BLOCK ELEVATION

0 2’ 4’ 8’

Scale: 1/4” = 1’–0”



2 FACILITY FENCING AND ACCESS GATE ELEVATION

0 1’ 2’ 4’

Scale: 1/2” = 1’–0”

KEY STORAGE BESS SITE ELEVATIONS
NOTE: THIS SHEET BASED ON SITE PLANS DATED NOVEMBER 5, 2021. DIMENSIONS MAY VARY BASED ON FINAL DESIGN.

Attachment 7

Site Photos

Photograph 1. Aerial view of Key 1 (APN 080-045-58S) looking north toward Gates Substation.

Photograph 2. Aerial view of Key 2 (APNs 080-045-36S and -37S) looking northeast toward Key 1 and Gates Substation.

Photograph 3. Northwest view of northern half of Key 1 (APN 080-045-58S)

Photograph 4. Southern view of orchard located on southern half of Key 1 (APN 080-045-58S)

Photograph 5. Southeast view of Key 2 (APN 080-045-37S)

Photograph 6. Southern view of Key 2 (APN 080-045-36S)

Attachment 11

Site Selection Process

Site Selection Process

Key Energy Storage, LLC, pursues a disciplined approach to acquisition and site control with a careful eye toward those development opportunities where environmental and permitting obstacles as well as complexity of interconnection are minimized to the greatest extent possible. As part of this diligence exercise, significant development expenses are outlaid early in the process to thoroughly screen projects for potential fatal flaws that would impede viability. Key Energy's primary selection criterion was to locate a site in close proximity to the existing Pacific Gas and Electric (PG&E) Gates Substation, existing transmission lines, adequate roadways, and separation from residences on a site that is relatively flat, outside of a 100-year floodplain, with minimal potential to impact sensitive habitat or species. The Gates Substation is located approximately 1.5 miles east of Interstate 5 (I-5), and 3.5 miles west of the California Aqueduct. To avoid the additional logistical and safety issues associated with traversing gen-tie lines across a major interstate and the aqueduct, sites that would require construction of overhead generation tie line (gen-tie line) that would cross these features were ruled out.

This Project site was selected because it met Key Energy's selection criteria. While all three parcels on the Project site are currently under Williamson Act contract, so are all surrounding undeveloped agricultural parcels in the immediate vicinity. The nearest non-contract sites of sufficient size, that do not cross I-5 or the California Aqueduct, are at least 4 miles away from the Gates Substation and would require miles of new gen-tie line installation. The Key Energy Storage Project site is located directly adjacent to existing transmission lines and PG&E's Gates Substation. The selected location will reduce the need for extensive gen-tie infrastructure, which will reduce project costs and environmental impacts. The site is also relatively flat and is located outside of the 100-year floodplain. Additionally, the parcels are highly disturbed due to their agricultural use, thereby making them inadequate habitat for sensitive species. As a result of these attributes, the Project site is uniquely well-suited for an energy storage system facility development and no equivalent alternative project location satisfies the siting constraints analysis.

Attachment 9

Existing Utilities and Water Use

Existing Site Utilities and Water Use

1.0 Existing Site Utilities

As described in the Title Reports (Attachment 4), utilities infrastructure is located on all three Project site parcels.

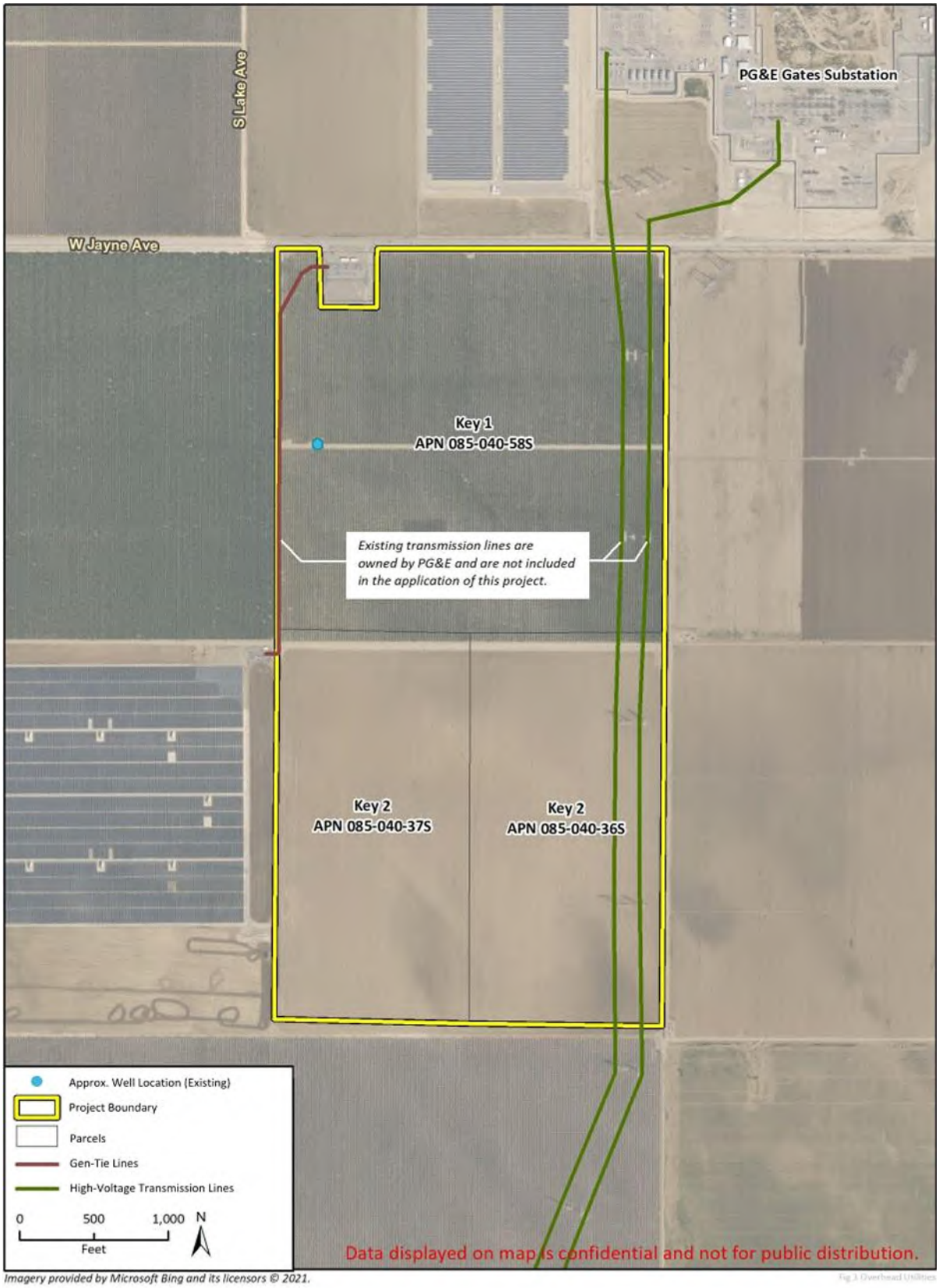
The utilities infrastructure located on the northernmost parcel of the Project site (APN 085-040-58S) include:

- Two pipelines for transportation of oil, gas, and water running along the east side of the parcel
- One PG&E utility line run north to south along west portion of the parcel (see Figure 1)
- Two PG&E utility lines run north to south located along east portion of the parcel (see Figure 1)
- A pipeline for conveying gas (owned by PG&E) located along the east half of the parcel
- An existing well on the eastern side of the site (see Figure 1)

The utilities located on the southern parcels of the Project site (APNs 085-040-36S and 085-040-37S) include underground oil pipelines, water pipes, and gas lines. These utilities are located on the western half of parcel of 085-040-36S and the eastern half of parcel 085-040-37S. In addition, two PG&E utility lines run north to south located along east portion of parcel 085-040-36S (see Figure 1).

Figure 1 shows the existing well on site and existing overhead transmission lines and gen-tie lines located on site, which tie to the adjacent PG&E Gates Substation.

Figure 1 Existing Utilities



2.0 Historical Water Use

A 10-year historical water use summary, including water sources for the Project site, will be submitted during the environmental review process.

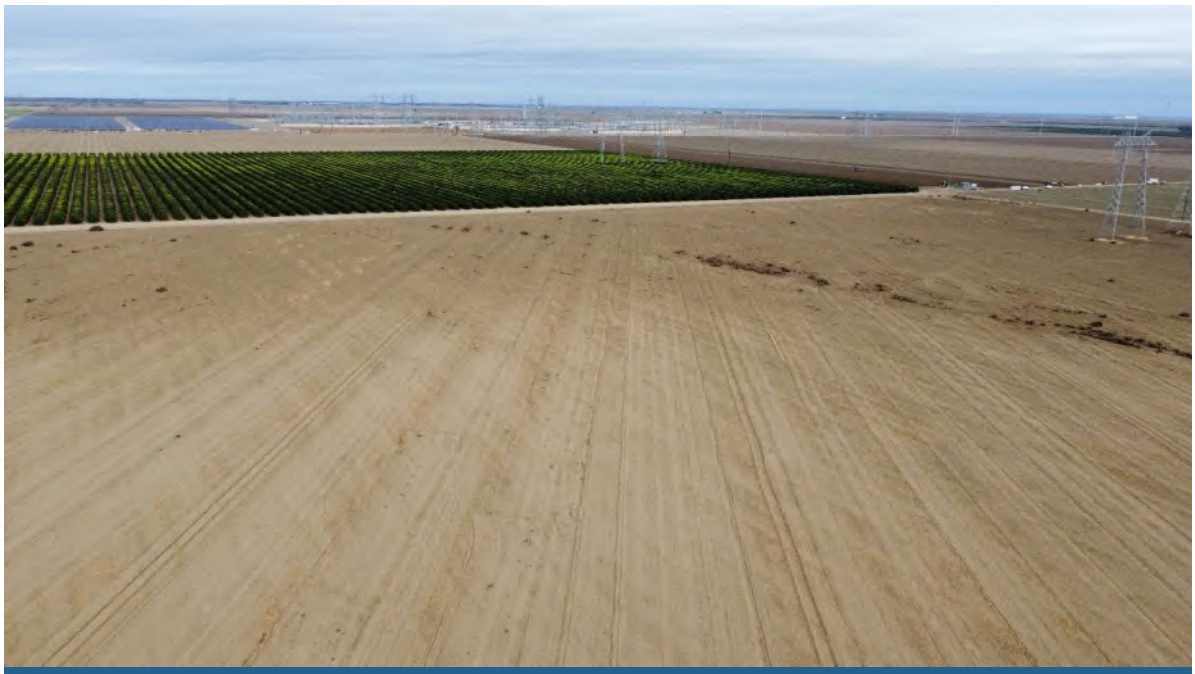
3.0 References

California Department of Toxic Substances Control (DTSC). 2021. Envirostor Webmap. Available at: https://www.envirostor.dtsc.ca.gov/public/map/. Accessed October 2021.

California State Water Resources Control Board. 2021. Geotracker Webmap. Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Sacramento. Accessed October 2021.

Attachment 8

Reclamation Plan



Key Energy Storage Project

Draft Reclamation Plan

prepared for

County of Fresno
Department of Public Works and Planning
2220 Tulare St. 6th Floor
Fresno, CA 93721
Attn: Jeremy Shaw, Planner

prepared with the assistance of

Key Energy Storage, LLC
700 Universe Boulevard
Juno Beach, Florida 33408
Attn: Sean Wazlaw / Patti Murphy

December 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Table of Contents

Tables

Reclamation Plan

1.0 Introduction

Key Energy Storage, LLC (Applicant) proposes to construct and operate the Key Energy Storage Project (Project) on approximately 208 acres in unincorporated Fresno County. The Project includes development of an energy storage system facility and associated on-site support facilities including a collector substation, inverters, collector lines, fencing, access roads, and supervisory control and data acquisition (SCADA) system. The Project would have the potential to store approximately 3 gigawatts (GW) of energy. The Project also includes a 500-kilovolt (kV) overhead generation tie line (gen-tie line), which would extend north to the adjacent Pacific Gas and Electric (PG&E) Gates Substation. The perimeter of the facility will be enclosed with a chain link fence built per county standards. The Project site is comprised of three parcels (Assessor Parcel Numbers [APNs] 085-040-36S, 085-040-37S, and 085-040-58S). The Fresno County General Plan land use designation for the Project site is Agriculture. The Project site is in the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District. The entire Project site is designated as Prime Farmland that is covered by Williamson Act Contracts.

2.0 Property Ownership

The northern parcel of the Project site (APN 085-040-58S) is presently owned by Michael Dresick, and the southern parcels (APNs 085-040-36S and -037S) are presently owned by Rebecca L. Kaser.

3.0 Soil Classifications

Table 1 describes the Project's soil classifications according to various systems used in California.

Table 1 Project Site Soil Classifications

Area[1]	Soil Type[1]	NRCS Prime Farmland Classification[1]	DOC FMMP Classification[2]	Land Capability Classification[1]
196 acres	Kimberlina sandy loam (0-2% slope)	Prime Farmland if Irrigated	Prime Farmland	Irrigated: 1 Non-irrigated: 7
109 acres	Westhaven loam (0-2% slope)	Prime Farmland if Irrigated	Prime Farmland	Irrigated: 1 Non-irrigated: 7
13 acres	Wasco sandy loam (2-5% slope)	Prime Farmland if Irrigated	Prime Farmland	Irrigated: 2 Non-irrigated: 7

Source[1]: USDA Web Soil Survey, 2021. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx
Source[2]: US Department of Conservation, 2016. https://maps.conservation.ca.gov/DLRP/CIFF/

The Project site is classified as Prime Farmland as designated by the State Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP). The property is classified as prime farmland, if irrigated, by the National Resources Conservation Services (NRCS).

Land Capability Classification (LCC) demonstrates the suitability of soils for growing field crops. Based on LCC, the site's LCC non-irrigated soil rating is Class 7, and its irrigated soil rating is Class 1 and 2. Class 1 soils have few limitations that restrict their use, and Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices. Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

4.0 Historical Agricultural Use

The site has historically been used for irrigated farming, dry-farming, and/or left fallow over the past four years (Table 2). A 10-year historical agricultural use summary will be provided as part of the Agricultural Resources Technical Study being prepared for the Project.

Table 2 Historic Agricultural Use

Assessor's Parcel Number	Historical Agricultural Use	Crop Types (2015-2019)	Source of water for parcel (district, well(s), etc.)	Well Onsite?
085-040-58S	Fallowed, irrigated farming	Orchard, citrus, almonds, other	Well	Yes
085-040-36S	Fallowed, Dry farmed, non-irrigated	None	None	No
085-040-37S	Fallowed, Dry farmed, non-irrigated	Winter wheat, other	None	No

Source: *AcreValue Report*, November 12, 2021.

5.0 Decommissioning

A final Reclamation Plan will be prepared during the environmental review process. The plan will then be updated and finalized in coordination with the final design plans and will be submitted with the Project's grading and building permit applications.

The Project is anticipated to have an operating life of up to 30 years. Decommissioning and site reclamation are anticipated to start in approximately 2055 and take up to 12 months. Decommissioning equipment and personnel would be similar to, or less than, that required for construction. Once the facility has been permanently shut down, the reclamation process will begin to return the site to its previous agricultural condition.

All decommissioning, reclamation, and restoration activities will adhere to the requirements of appropriate governing authorities, and will be in accordance with all applicable federal, state, and local permits. The reclamation and restoration process comprises removal of above ground structures; removal of below ground foundations and infrastructure; and restoration of topsoil, re-vegetation, and seeding. Electrical conduit and other materials that break off more than 4 feet below the ground surface would be decommissioned in place. Appropriate temporary (construction-related) erosion and sedimentation control best management practices (BMP) will be used during the reclamation phase of the Project. The BMPs will be inspected on a regular basis to ensure their function.

The Project components, including the energy storage system and on-site substation, would be recycled when the Project's operating life is over. Most parts of the proposed system are recyclable. Batteries include lithium-ion, which degrades but can be recycled or repurposed. Battery enclosures include steel or aluminum, with concrete foundations which can be recycled. Local recyclers are available, and metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage.

Fuel, hydraulic fluids, and oils would be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels would be rinsed and transferred to tanker trucks. Other items that are not feasible to remove at the point of generation, such as lubricants, paints, and solvents, would be kept in a locked utility structure with integral secondary containment that meets applicable requirements for hazardous waste storage until removal for proper disposal and recycling. It is anticipated that all oils and batteries would be recycled at an appropriate facility. Site personnel involved in handling these materials would be trained to properly handle them. Enclosures used to store hazardous materials would be inspected regularly for any signs of failure or leakage. Transportation of the removed hazardous materials would comply with applicable regulations for transporting hazardous materials, including those set by the U.S. Department of Transportation, U.S. Environmental Protection Agency, California Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal.

Prior to completion of decommissioning, the Project site would be restored to its current agricultural condition. All roads and other areas compacted during original construction or by equipment used for decommissioning would be tilled in a manner adequate to restore the sub-grade material to the proper density and depth consistent with adjacent properties. Low areas would be filled with clean, compatible sub-grade material. After proper sub-grade depth is established, locally sourced (from the City of Fresno or other location within 50 miles of the Project site) topsoil would be placed to a depth and density consistent with adjacent properties. Locally sourced compost would be applied to the topsoil, and the entire site would be tilled to further loosen the soil and blend in the compost. An appropriate seed mixture would be broadcast or drilled across the site and weed-free mulch would be applied to stabilize the soil and retain moisture for seedling germination and establishment.

6.0 Financial Assurances

An estimated cost for all activities associated with returning this site to its original state shall be provided prior to Project approval. Prices will reflect a rough estimate of predicted market conditions and may be subject to change.

Agricultural land water, and utility pipes on site prior to energy storage facility construction may remain throughout the facility's use. These systems may once again be used to provide irrigation on

the property after the site has been decommissioned. Once the facility is completely removed, the property owner will be able to commence farming on this property if they so choose.

7.0 Record of Owner's Notice of Proposed Reclamation Plan

The northernmost parcel on the Project site (APN 085-040-58S) is currently owned by the Ann Dresick Family Trust, and the southern parcels (APNs 085-040-36S and -37S) are owned by Rebecca Kaser, Trustee of the Rebecca Avellar Trust. Key Energy Storage, LLC, will be purchasing the real property from the current property owners (Rebecca Kaser and Michael Dresick) prior to the start of construction. Therefore, Key Energy Storage, LLC is the future property owner and is thereby suitably notified.

8.0 References

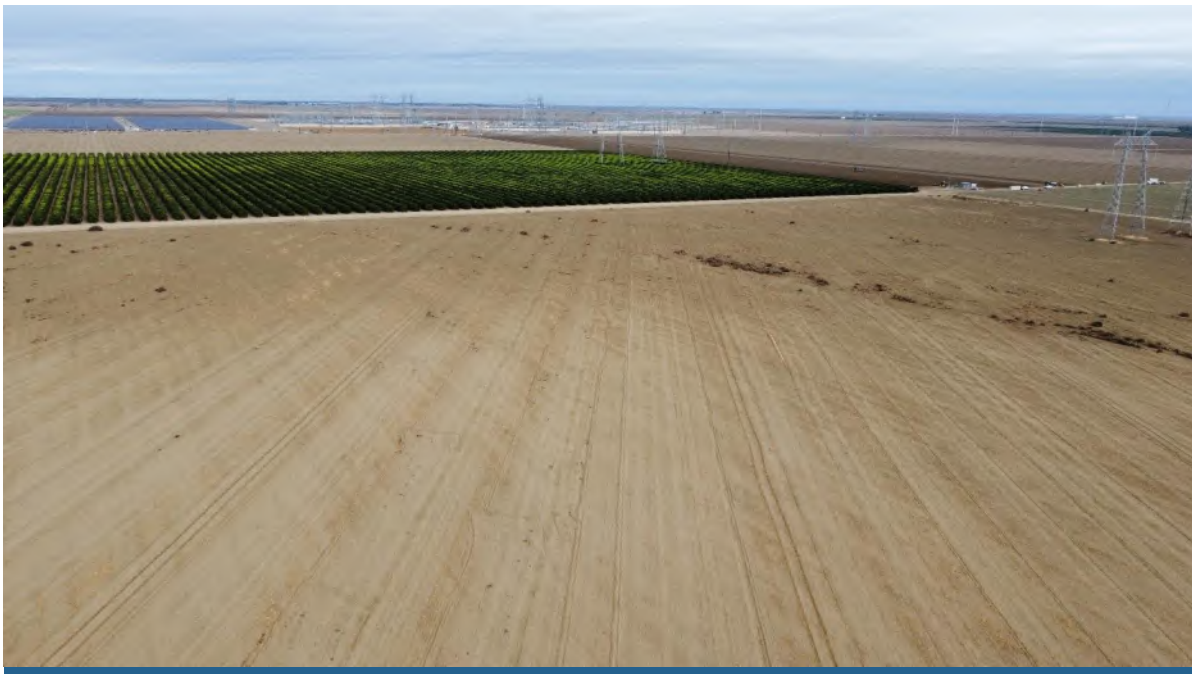
AcreValue. 2021. AcreValue Report. November 21, 2021.

United States Department of Agriculture (USDA) Natural Resource Conservation Service. 2021. Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed October 2021.

United States Department of Conservation (DOC). 2016. California Important Farmland Finder Webmap. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed October 2021.

Attachment 12

Pest Management Plan



Key Energy Storage Project

Pest Management Plan

prepared for

County of Fresno
Department of Public Works and Planning
2220 Tulare St. 6th Floor
Fresno, CA 93721
Attn: Jeremy Shaw, Planner

prepared with the assistance of

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December 2021

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Table of Contents

Pest Management Plan

1.0 Introduction

1.1 Background and Purpose

Key Energy Storage, LLC (Applicant) proposes to construct and operate the Key Energy Storage Project (Project) in unincorporated Fresno County, approximately 11.5 miles east of the City of Coalinga, approximately 7.5 miles north of the City of Avenal, and approximately 0.4 mile west of Interstate 5 (Figure 1, Regional Location). The Project site is located southwest of the PG&E Gates Substation along West Jayne Avenue. The Project would be developed on up to 208 acres of a 318-acre site comprised of three parcels (Assessor Parcel Numbers [APNs] 085-040-36S, 085-040-37S, and 085-040-58S) (Figure 2, Project Site and Project Parcel Map).

The Fresno County General Plan land use designation for the Project site is Agriculture. The Project site is in the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District. Within this zoning district, Fresno County permits utility-scale renewable energy uses with an Unclassified Conditional-Use Permit (UCUP). The Applicant selected the Project site based on its previously disturbed nature and close proximity to Gates Substation.

Upon approval, the UCUP is subject to the Conditions of Approval and Mitigation Measures set forth in the Fresno County Board of Supervisor's Resolution in accordance with the California Environmental Quality Act of 1970 (California Public Resources Code § 21000 et seq.) and the California Code of Regulations (Title 14 § 15000 et seq.).

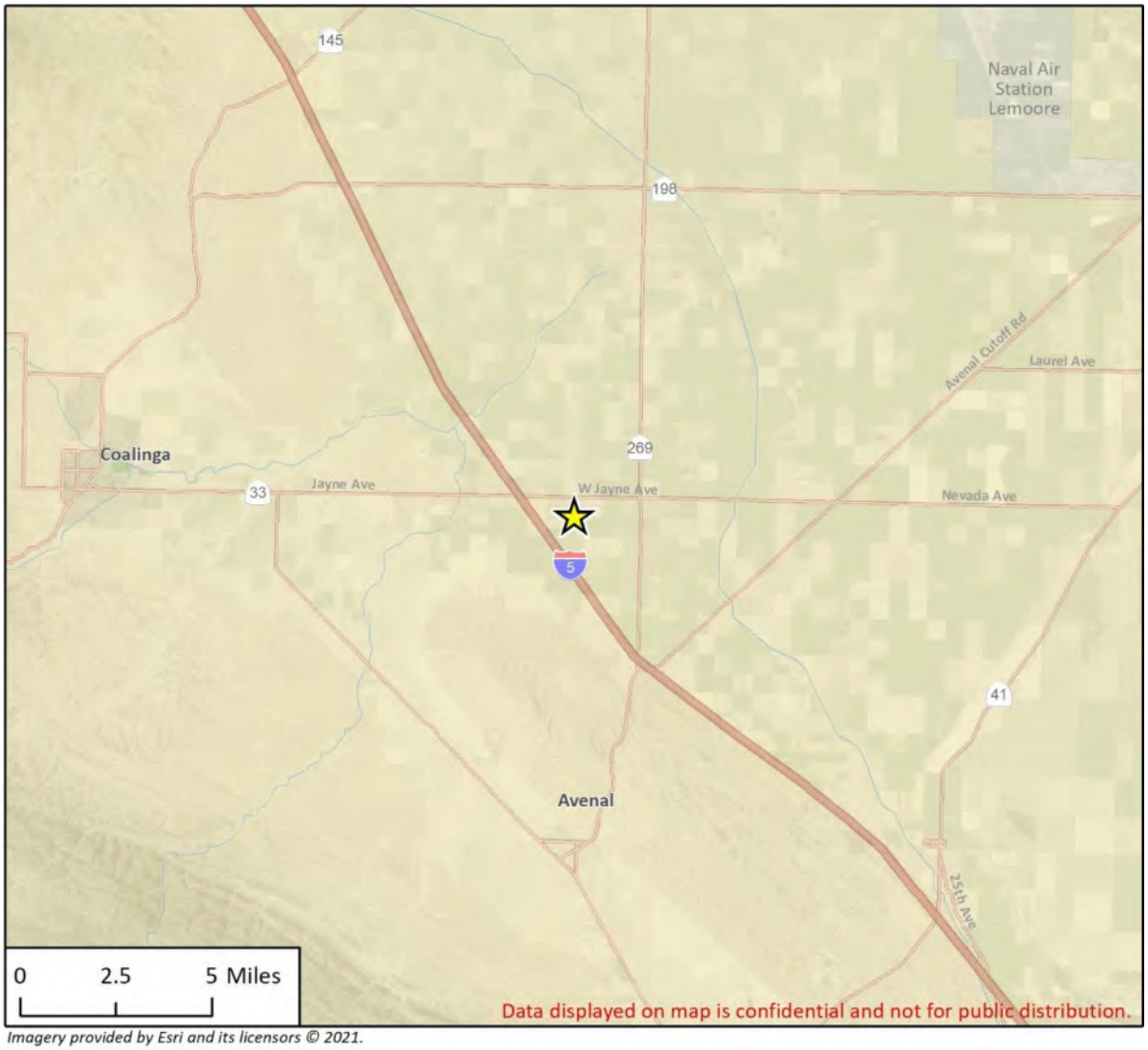
This Pest Management Plan has been prepared to comply with the Project's anticipated Fresno County UCUP. The following pest-control measures were developed for the purpose of minimizing the likelihood of pests (including weeds and rodents) within the Project site and maximizing the ability to reduce the current (if present) pest population.

1.2 Site and Project Summary

The Project would include development of an energy storage system facility and associated on-site support facilities including a substation, inverters, collector lines, fencing, access roads, supervisory control and data acquisition (SCADA) system, and other ancillary facilities or equipment. The energy storage facility is anticipated to consist of lithium-ion batteries with the potential to store approximately three (3)-gigawatt (GW) of energy.[1] The Project would also include a 500-kilovolt (kV) overhead generation tie line (gen-tie line), which would extend north to the adjacent Pacific Gas and Electric (PG&E) Gates Substation.

[1] The megawatt capacity is an estimate based on currently available technology as the energy storage industry has quickly evolved in the last few years and is anticipated to continue to evolve. While the components and total megawatts of the Project may change, the overall size of the Project (up to approximately 208 acres) would remain consistent.

Figure 1 Regional Location



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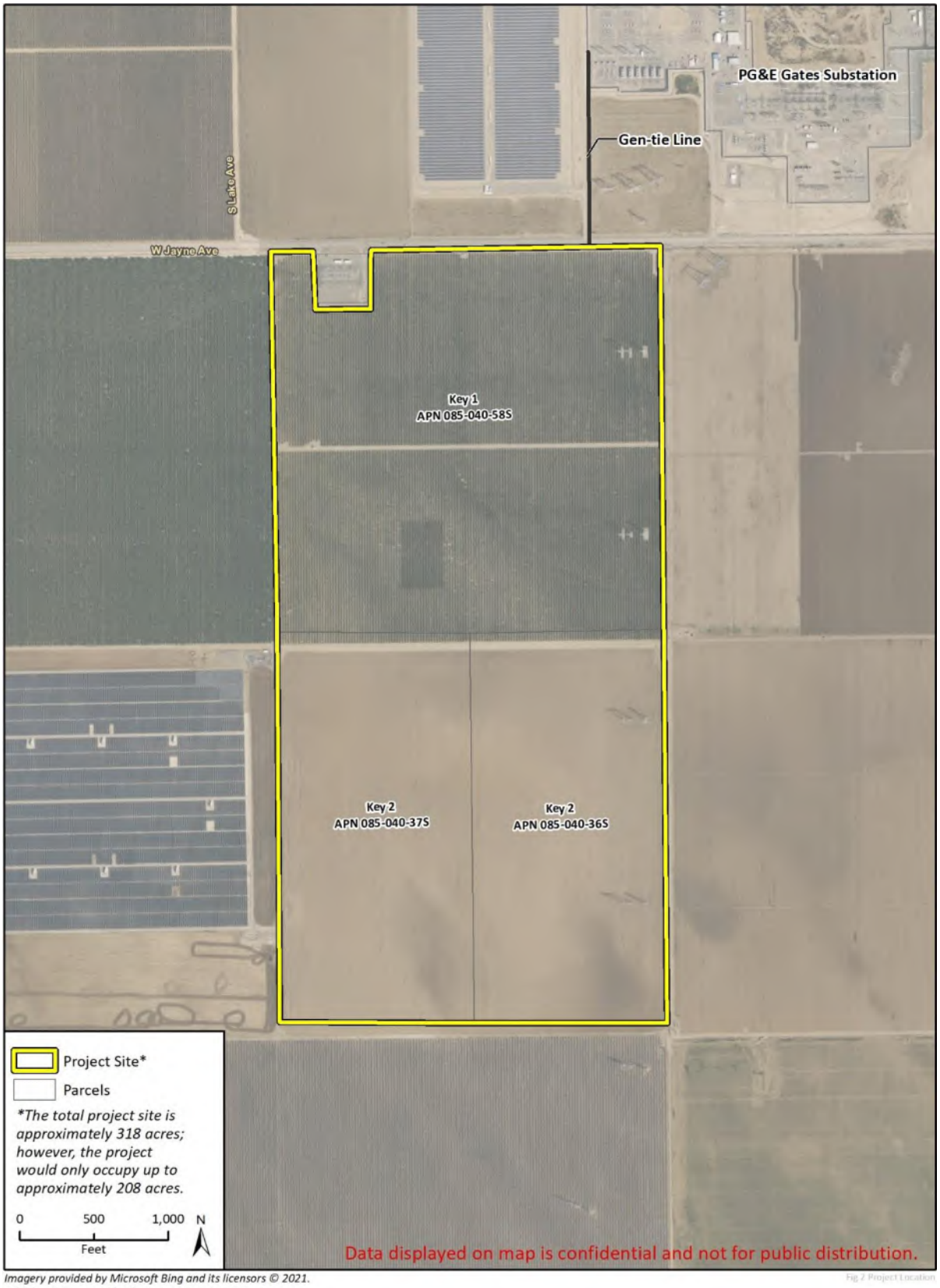
Project Location

N

Figure 2 Project Site and Project Parcel Map



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Additional data provided by Fresno County, 2021.

The Key 1 portion of the site consists of land in agriculture production, an overhead gen-tie line along the western boundary, and high voltage transmission lines running north-to-south in the eastern portion of the site. The Key 2 portion of the site is currently fallow with high voltage transmission lines running north-to-south in the eastern portion of the site.

As shown in Figure 2, the Project site is bound by West Jayne Avenue to the north and unpaved agricultural access roads to the east, south, and west. The Project site is surrounded by agricultural uses to the west, south, and east. Solar facilities are located to the north and southwest and the PG&E Gates Substation is located to the northeast of the Project site. A small substation is also located immediately adjacent to the northwest Project site boundary.

Existing site access from West Jayne Avenue is provided via agricultural roads along the eastern and western Project site boundaries.

2.0 Pest Management Goals

This Pest Management Plan has been prepared to comply with the Project's anticipated Fresno County UCUP. The following pest-control measures are based on widely accepted pest management protocols and were developed for the purpose of minimizing the likelihood of pests (including weeds and rodents) within the Project site and maximizing the ability to reduce the current (if present) pest population.

3.0 Strategy

This Pest Management Plan promotes the use of a range of preventative and non-chemical approaches to control pest populations and stave off infestation. If preventative and non-chemical approaches fail to control the pest populations and an infestation warrants additional treatment, the Pest Management Plan protocol favors the use of least-toxic chemical control (i.e., herbicide or pesticide).

4.0 Practices

The following sections include general and specific preventative, mechanical, and chemical pest control strategies.

4.1 Weed Control Practices

Preventative Controls

Preventative strategies to control the spread of weed seed within the Project site include cleaning all vehicles inside and out at a commercial washing station to prevent weed seeds that are carried in tire treads, etc. from being carried onto the property.

Mechanical Controls

Mechanical strategies to remove existing and new weed populations include the following:

- Regular inspections of the property should be made to identify weeds before they go to seed.

- Remove weed species when identified. This can be done by pulling the entire plant out of the soil and disposing of it. It is especially important to remove weeds before the seed head matures.
- Handheld string trimmers (Weed Eaters) or mowers can be used in the larger open spaces if needed but those activities should be timed before the weeds develop seed heads.

Chemical Controls

Chemical controls, which include use of herbicides, should only be utilized if the weed prevention and mechanical controls detailed above fail. Protocols for herbicide use are detailed in Section 4.3.

4.2 Pest Control Practices and Removal Methods

Preventative Controls

Various small rodents are known to inhabit the general region. These include voles, moles, pocket gophers, rats, mice, and California ground squirrels. Preventive measures for each of these species are somewhat different; however, there are several measures common to all that can be implemented for the project as needed. These measures are summarized below:

- **Managing Vegetation**: Rodents typically occur in areas where vegetation (including weeds) is allowed to grow; therefore, the vegetative cover throughout the site should be controlled. This can be achieved through periodic mowing or weeding.
- **Tilling**: Plowing can be an effective measure in controlling rodents. Tilling must be performed on a regular basis to ensure control of rodent populations.
- **Specialized Fencing**: Specialized fencing designed to exclude small mammals can sometimes be an effective measure in controlling animals, particularly in dealing with larger mammals such as California ground squirrels. However, specialized fencing is most effective when utilized for relatively small projects. Installing specialized fencing would not be a cost-effective means in controlling small rodents for the proposed project.
- **Natural Control**: Natural predators such as hawks and falcons do occur in the area and prey on voles, rats, and ground squirrels on a regular basis. Raptors are expected to utilize the site during hunting activities.

Mechanical Controls

Construction of the proposed Project would have the benefit of reducing the number of rodents which may presently occur on the site due to modification and removal of the existing crops and vegetation present on the site. As part of the construction process, the site would be graded, and all current vegetation will be removed. Some natural re-vegetation will occur over time and rodents will naturally be reintroduced; consequently, pests may need to be controlled through mechanical removal practices.

Trapping would be the preferred active management technique should the above preventative methods fail to provide sufficient management. Removal of various rodent species through trapping measures is an effective way to control populations of pests; however, trapping is labor intensive and can be relatively expensive. Trapping is most effective when dealing with small projects or when the rodents are confined to a relatively small portion of the site. Trapping may be an effective measure for the project if the rodent infestation problem is confined to a small area but if the

rodents are evenly dispersed throughout the site, baiting (see chemical controls below) may be a more effective measure. In the event an infestation problem does arise, the site operations manager should consult with a pest control expert to determine if trapping is suitable.

Trapping would be employed by a licensed contractor for about 3 to 6 months and evaluated for success before other management options are considered.

Chemical Controls

Rodenticides are pesticides used to control rodents and can be used as bait in rodent traps. The use of rodenticides would be restricted and would only be implemented by a licensed contractor should other management techniques fail. If rodent control must be conducted, zinc phosphide will be used because of its proven lower risk to San Joaquin Kit Fox. Bait stations shall be enclosed so the opening is accessible for the target rodent (i.e., 2-inch diameter for ground squirrel), but the openings will be at an elevated angle so that bait remains inside the station under all conditions. Protocols for pesticides use are detailed in Section 4.3.

4.3 Chemical Application of Herbicides and Pesticides

Chemical herbicides and pesticides (including rodenticides) are to be used only after non-chemical options have been exhausted, with a preference for use of a low-risk herbicides and pesticides. Low risk herbicides and pesticides are determined by hazard screening to be of “lowest concern,” because the product contains:

- No known, likely, or probable carcinogens
- No reproductive toxicants (CA Prop 65 list)
- No ingredients listed by the U.S. Environmental Protection Agency as known, probable, or suspect endocrine disrupters
- Active ingredients have a soil half-life of thirty days or less
- Labeled as not toxic to fish, birds, bees, wildlife, or domestic animals
- Pest control chemicals other than glyphosate (e.g., Roundup) and pelargonic acid (e.g., Scythe) shall only be applied by a credentialed applicator in the state of California and it is necessary to confirm that the applicator has all the necessary federal, state, and local agency permits.

All chemical application and advice on pest and weed management problems will be made by a licensed contractor, particularly in the creation of a customized treatment plan which may require detailed knowledge of the biology and ecology of a particular species. No pesticides or herbicides should be stored on the property and a specialist must prepare the chemicals off-site to limit the chances of a spill. Herbicides are not to be sprayed within the buffer zone (if any) of any sensitive resource areas without prior authorization from the appropriate regulatory agency.

Contractor Requirements

All contractors responsible for pesticide and herbicide use, transport, application, and control at the site will hold the appropriate certifications. Such certifications shall be made available. Contractors transporting pesticides and herbicides to the site shall also have legible Safety Data Sheets and labels on site.

Application Procedures

Chemical herbicide and pesticide applications on site will occur using the following general best management practices:

- Use of chemical compounds will observe label and other restrictions mandated by the United States Environmental Protection Agency, California Department of Food and Agriculture, and any other applicable state and federal legislation.
- Time the treatment to coincide with the presence of the pest or weed species.
- Use a selective chemical that has the least effect on non-target species and treat only the area affected.
- Spraying must not be carried out in unsuitable weather. Anyone operating sprayers must have access to a wind-speed meter and only spray when the wind speed is less than 10 miles per hour.
- Spray equipment must be frequently checked and properly maintained, both for health and safety reasons and to minimize spray drift.
- Users must wear protective clothing and Personal Protective Equipment (PPE) appropriate to the pest chemical application used.
- Ensure that anyone handling toxic chemicals never works alone and that the work area is well ventilated.
- Require respirators for outdoor spraying or dusting of organic phosphorus compounds.
- Eating, drinking and smoking must be prohibited when using or handling chemicals.
- Users must be familiar with the effects on the body of the chemicals they are likely to be using, and how the chemicals may enter the body.
- Users must be aware of the signs and symptoms of acute poisoning related to chemicals they are using. They must stop work if they are feeling ill and seek medical advice.

Spill Control

Spill kits and PPE will be available on site and must be carried in contractor vehicles. If a spill or inadvertent release occurs the following protocol should be followed:

- Notify the Operations Manager and the appropriate regulatory agencies immediately.
- Secure the affected area barring pedestrian and vehicle traffic. All spill response personnel shall put on the appropriate PPE prior to entering the spill containment area.
- Personnel, while wearing the appropriate PPE and equipped with the necessary tools and equipment, shall stop the chemical leak or release.
- All materials associated with spill response, including the released herbicide, affected soils and plants, absorptive material, clothing, and PPE shall be removed and containerized according to appropriate regulations and procedures.

All generated spill response containers shall be transported, following appropriate regulations, and disposed legally at an approved disposal facility.

5.0 Conclusion

Pests and weeds are not expected to be an issue of major concern because the Project will not produce or maintain any crops or other plant materials that might propogate weeds or attract the various rodents known to occur in the area. In addition, food and trash will not be stored on site. Minimal weed management will be required to avoid interference with facility equipment, and will reduce the amount of useful habitat for pests on the site. In addition, preventative control methods would help reduce pests and weeds on site.