

EXHIBIT I

Proposed Project Text Change to Moss Landing Power Plant Master Plan Section 7. Proposed Projects 2011-2017

12. Pacific Gas and Electric Company's (PG&E) Moss Landing Bus Upgrade and Automation Project.

1. PROJECT DESCRIPTION

1.0 INTRODUCTION

Pacific Gas and Electric Company (PG&E) is proposing the Moss Landing Bus Upgrade and Automation Project (project) to increase substation control and enhance electrical system reliability. The project involves an approximate 5.2-acre expansion of the existing Moss Landing Substation; removal of the existing 230 kilovolt (kV) and 115 kV substation equipment; and installation of new, more efficient substation equipment that would increase the control and reliability of the substation and transmission system. In addition, the transmission lines and towers located to the north of the substation outside of the existing fenceline (hereby referred to as the transmission tower yard) would be reconfigured. Specifically, ten existing lattice towers and one tubular steel pole (TSP) would be removed and would be replaced with five new lattice towers and seven TSPs of similar height.

1.1 PURPOSE AND NEED

The project would enhance PG&E's control and reliability of the substation and transmission system. The substation system controls are currently located within the Dynegy-owned Moss Landing Power Plant, which is located adjacent to the southern boundary of the Moss Landing Substation. Because PG&E originally built, owned, and operated the power plant, the substation controls are located inside the power plant. Now that the power plant is owned by Dynegy, PG&E substation operators have limited access to substation controls inside the power plant because of Dynegy's security protocols. With the implementation of the project, the substation controls would be relocated to the PG&E-owned substation property. Additionally, the existing substation equipment is aging. The new substation equipment would increase the reliability and efficiency of PG&E's electrical transmission system.

1.2 LOCATION

The project is located in unincorporated Monterey County, California, as shown on Figure 1-1: Project Vicinity Map. The substation is located approximately 7 miles south of the City of Watsonville. Elkhorn Slough is located approximately 240 feet north of the project.

1.3 COMPONENTS

The project includes the following components:

- An approximately 5.2-acre expansion of the existing 26-acre substation footprint
- Removal of the existing 115 kV and 230 kV substation equipment
- Installation of new, more efficient 115 kV and 230 kV substation equipment
- Removal and replacement of lattice towers and TSPs in the transmission tower yard and the expanded substation
- Relocation of an existing microwave telecommunications tower and building
- Relocation of an existing outdoor materials testing facility

1.3.0 Substation Expansion and Reconfiguration of the 115 kV and 230 kV Transformer Banks

The Moss Landing Substation currently occupies approximately 26 acres and would be expanded by approximately 5.2 acres (150 feet by 1,500 feet). To accommodate the substation expansion, while still maintaining electrical service to areas served by the substation, the project would be phased. During the first phase, the existing 230 kV substation equipment would be removed and replaced with the new substation equipment in the new configuration.

The second phase involves the removal and replacement of the 115 kV equipment. Demolition and construction at the 115 kV yard would not begin until construction at the 230 kV yard is complete. Phasing the 115 kV and 230 kV yards would ensure that portions of the substation can remain energized during construction to serve customers.

The height of the new substation equipment would range from 20 to 30 feet, which is approximately 10 feet lower than the existing equipment. Three existing 90-foot to 100-foot-tall lattice towers located within the substation fence line would be removed and replaced with several 60-foot-tall TSPs. The major equipment to be installed includes 230/115 kV transformer banks, circuit breaker reactors, two modular protection automation and control buildings (each measuring 98 feet long, by 16 feet wide, and 11 feet tall), and a battery building (measuring 34 feet long, by 16 feet wide, and 11 feet tall).

The substation expansion area and new substation equipment is depicted in Figure 1-2: Substation and Transmission Tower Yard Site Plan.

The total amount of oil required to operate the transformers at the Moss Landing Substation would be reduced because the existing single-phase banks would be replaced with new three phase banks, which require less oil. Additionally, the existing oil-filled circuit breakers would be replaced with gas circuit breakers. Under the substation equipment, one new retention basin would be installed and the existing basin would be modified. Stormwater would be managed by a series of drainage ditches and pipes connecting to the drainage system for the adjacent power plant.

Substation lighting would be provided by 100 and 150 watt high-pressure sodium luminaires that would be mounted to the substation structures and to poles ranging in height from 10 feet to 14 feet. The substation lights would normally be turned off and would only be used intermittently at night for security and safety reasons. The lights would be oriented downward to minimize glare onto surrounding property and habitat.

A 6-foot-tall chain-link fence topped with barbed wire (consistent with PG&E standards for security fences) would enclose the entire substation, which would include the 115 kV yard, 230 kV yard, and the outdoor materials testing facility. All entrance gates would be locked and monitored remotely to limit access to qualified personnel. Warning signs would be posted on the substation fence, in accordance with federal, state, and local safety regulations. A substation ground grid would also be installed, in accordance with applicable PG&E safety guidelines and standards.

1.3.1 Pole Removal and Installation

The existing transmission lines, located within the transmission tower yard, would be reoriented to accommodate the substation expansion, as shown in Figure 1-2: Substation and Transmission Tower Yard Site Plan.

The new transmission line-related lattice towers to be installed in the tower yard would be between 80 and 100 feet tall along the 115 kV lines and 90 to 100 feet tall along the 230 kV lines. The new TSPs to be installed along the 115 kV lines would be approximately 75 feet tall and the TSPs along the 230 kV lines would be approximately 100 feet tall. All new lattice towers and TSPs would be designed to conform to those practices described in the Suggested Practices for Avian Protection on Power Lines Manual developed by the Avian Power Line Interaction Committee.

New conductor would also be installed to connect the new lattice towers and TSPs to the reconfigured substation transformer banks.

1.3.2 Relocation of the Microwave Communications Tower

Prior to the substation reconfiguration and replacement of the transformer banks, the existing microwave communications tower and control building must be relocated. The microwave communications tower is essential for substation operation and communication. The existing microwave communications tower and control building would be demolished only after the new equipment is operational.

The new microwave communications tower and control building would be constructed approximately 300 feet northwest of the existing tower and control building, as shown in Figure 1-2: Substation and Transmission Tower Yard Site Plan. The existing 150-foot-tall microwave tower would be removed and a new 150-foot-tall microwave tower would be installed. The tower would have 8-foot microwave antennas placed at 105 feet and 145 feet on the tower. The microwave communications tower, with associated ground systems, control building, and cable-bridge from the communication tower to the control building, would be installed within the substation fenceline. The new control building would be 32 feet by 12 feet, which is similar in size to the existing building.

1.3.3 Relocation of the Existing Outdoor Test Yard

The project would require the relocation of the existing materials testing yard and meteorological tower in order to accommodate the new 230 kV substation equipment. The materials testing yard would be moved approximately 1,000 feet to the west and would occupy an area measuring approximately 130,000 square feet. The entire area would be graded and graveled to create a flat, drivable surface, and the perimeter of the facility would be fenced. The yard would be used for testing utility equipment including transformers, switching equipment, poles, insulators, and overvoltage protection devices.

The test facility would also contain a new meteorological tower. The tower would be 60 feet tall and would be located in the northeast corner of the test facility, away from obstructions.

1.4 LAND REQUIREMENTS

This project would include locating TSPs on Dynegy's property within a new right-of-way. During construction, a temporary access easement would be obtained from the adjacent property owner to the northwest for use of the existing private road leading to the transmission tower yard.

1.4.0 Temporary Work Areas (Construction)

Substation Expansion

Access

During construction at the substation, temporary access for equipment and vehicles would be provided via Dolan Road and California State Route 1 (Highway 1). Construction vehicles and equipment would utilize existing roadways within the PG&E-owned property.

Staging Areas

Staging of substation materials would occur in Fresno, California. All materials would be trucked into the site and would be delivered via Dolan Road and Highway 1. Construction staging would occur within the existing substation site and no additional land is required. Construction trailers would also be located within the existing substation site and would obtain power from the substation.

Work Areas

Because each substation bus would be encircled by 16-foot-wide access roads, additional work areas, beyond the approximate 5.2 acres being developed as part of the substation expansion, would not be required. The work areas include all of the access roads between the substation busses.

Transmission Line and Structures

Access

Access to the transmission lattice towers/TSPs located outside of the existing substation fence line would be from the existing PG&E maintenance facility just east of the substation or an existing private road that is located northwest of the project site. To access each of the transmission tower locations from the private road, a series of 16-foot-wide dirt access roads would be required. All temporary access roads would be restored to pre-construction conditions following completion of the project.

Staging Areas

Lattice tower steel and TSPs would be delivered to the project site from Davis, California via Dolan Road and Highway 1. Construction staging would occur within the larger work area described in the following section.

Work Areas

An approximately 350,000-square-foot (8-acre) temporary work area would be utilized within the transmission tower yard during construction. This area would be used for lattice tower demolition, equipment and materials staging, site access, and working space for placing

equipment and materials. All work areas would be restored to pre-construction conditions upon completion of construction.

1.4.1 Permanent (Operation and Maintenance)

The expanded substation and lattice towers would occupy approximately 5.2 additional acres of land upon completion of the project, as shown in Table 1-1: Permanent Aboveground Facility Land Requirements. Within the transmission tower yard, nine lattice towers and one TSP would be removed and would be replaced in new locations with four lattice towers and six TSPs. Therefore, there is no additional permanent land impact as a result of the lattice tower component of the project.

Table 1-1: Permanent Aboveground Facility Land Requirements

Aboveground Facility	Permanent Land Requirements	
	Dimensions/Square Footage	Acreage
Expanded substation	1,500 feet by 150 feet	5.2
Lattice towers (4 footings per lattice tower)	116 square feet per tower (29 square feet per footing)	0.01-0.02=-0.01*
TSPs	29 square feet per TSP	0.01

*Demolition of the nine existing towers within the transmission tower yard would result in the removal of 0.02 acre of permanent impacts, while the installation of the new towers would result in 0.01 acre of impact.

1.5 PROJECT CONSTRUCTION

1.5.0 Construction Methods

Substation Expansion

Clearing and Grading and Demolition

The existing substation equipment would be removed from the site in phases. First, the existing 230 kV equipment would be demolished, removed, and then reconstructed in the new configuration. Then, the 115 kV equipment would be demolished, removed, and reconstructed. The existing substation equipment would be reused on site or recycled, to the maximum extent practicable. Any remaining materials and equipment would be sent to appropriate landfill facilities (such as the Altamont Landfill). Any hazardous materials would be appropriately disposed of at the nearest hazardous materials disposal facility.

Once the existing substation equipment has been demolished and removed, the site clearing and grading would ensue. Existing vegetation in the expansion area would be cleared and the area would be graded to create a level surface for the new equipment. Some cut and fill would be required to create a level surface. The grading would be based on a grading plan that emphasizes balanced cut and fill to the extent possible. In addition, on-site material would be reused to the extent possible. Approximately 17,000 cubic yards of cut and 11,000 cubic yards of fill would be required to develop the substation structure pads. The entire expansion area would then be graveled. Imported Class II Aggregate base would be required to provide a 4- to 12-inch surface cap for the two substation switchyards. Site grading would be accomplished with bulldozers and scrapers, which would cut and fill native soil to the desired pad elevations.

Foundation Installation

Following site preparation, construction of the station equipment foundations (consisting of drilled pier, mat, and pad type foundations) and the grounding grid would begin. Foundation construction would commence with excavation activities that would be accomplished primarily by backhoes and drill rigs. Forms, reinforcing steel, and concrete would then be installed, as appropriate, to build the foundations.

Approximately 6,000 gallons of water would normally be required daily for dust control. Up to 15,000 gallons per day would be required during grading and foundation construction. Water would be obtained from the shared PG&E and Dynegy well.

Dewatering may be necessary during construction given the high groundwater table at the project site. Water would be pumped into tanks and tested for contaminants. Whenever possible, the pumped water would be recycled and reused during construction (e.g., dust control).

Aboveground Substation Equipment Installation

Once the foundation work has been completed, placement of major substation equipment on their respective foundations or structures, inclusive of anchoring in their final positions and wiring of the equipment controls and protection devices, would be completed. This work would be accomplished by delivering equipment to the site on flatbed trucks and lifting it into place using forklifts and cranes.

Cleanup and Post-Construction Restoration

Because the entire substation and work areas would be located within the substation property, on asphalted or graveled roads, there would be no post-construction restoration required.

Transmission Lines and Structures

Clearing and Grading

Once the access route to each transmission tower has been established, work would begin. No tree removal would be required.

The transmission tower yard is relatively flat and minimal (if any) grading would be required for the installation of the new lattice towers. However, excavations would be required for the new lattice tower foundations, as described in the following section.

Water for dust control would be obtained from the shared PG&E and Dynegy well or from dewatering activities (once the water is tested and is determined to be free of contaminants).

Lattice Tower Installation

Lattice tower foundations would typically be drilled concrete piers. The foundation process would begin with the boring of four holes (approximately 4 to 6 feet in diameter and 12 to 15 feet in depth) for the lattice towers. The holes would be bored using truck-mounted excavators and augers to match the diameter and depth requirements of the foundations. Following excavation of the foundation holes, reinforcing steel would be installed and concrete would be poured. Concrete would be delivered directly to the lattice tower locations in concrete trucks. In

cases where access is limited, concrete may be pumped from a work area located several hundred feet away from the structure location.

Lattice tower segments would be assembled at each installation site within the transmission tower yard work area. Steel parts for each structure would be delivered to each location by flatbed truck. The lattice tower segments would be bolted together and assembled on the ground. The lattice towers would be lifted onto their foundations by use of a crane.

PG&E would notify the Underground Service Alert a minimum of 48 hours in advance of excavating or conducting other ground-disturbing activities in order to identify buried utilities. PG&E would also conduct exploratory excavations (potholing) to verify the locations of existing facilities in the field.

TSP Installation

Crews would initiate TSP construction by excavating an approximate 20-foot-deep foundation to accommodate the rebar cage in order to reinforce the concrete foundations. When the concrete foundation is cured, the TSP base is lifted onto the foundation by a crane. Once the TSP base is secured, the next section of the TSP is slipped onto the base by a crane and secured in place. Similar to the lattice tower installation, concrete would be delivered directly to the TSP locations in concrete trucks. In cases where access is limited, concrete may be pumped from a work area located several hundred feet away from the structure location.

Conductor Installation

Conductor stringing operations would be facilitated with the installation of travelers or "rollers" on the structure cross-arms during structure installation, using aerial manlifts (bucket-trucks). The travelers would allow the conductor to be pulled through each structure until the entire line is ready to be pulled up to the final tension position. Following installation of the travelers, a sock line (a small cable used to pull the conductor) rope would be pulled onto the travelers. Once the rope is in place, it would be attached to a steel cable and pulled back through the travelers. The conductor would then be attached to the cable and pulled back through the travelers using conventional tractor-trailer pulling equipment located at pull and tension sites.

After the conductor is pulled into place, the sags between the structures would be adjusted to a pre-calculated level. The line would be installed with a minimum ground clearance of 30 feet. The conductor would then be clipped into the end of each insulator, the travelers would be removed, and as required vibration dampers and other accessories would be installed.

Cleanup and Post-Construction Restoration

All areas that are temporarily disturbed around each lattice tower and TSP, as well as areas used for conductor pulling, tensioning, and staging, would be restored to pre-construction conditions, to the extent practicable, following construction. This would include removal of all construction materials and debris, and returning areas to their original contours. The areas would be allowed to naturally revegetate.

1.5.1 Construction Personnel and Equipment

Because the substation must remain operational to maintain electrical service to PG&E

customers, the project must be constructed in phases. It is anticipated that construction of the entire project would take approximately 5 years to complete (including initial site clearing and demolition) and that there would be approximately 16 personnel on site during peak construction times. The majority of work would be conducted by two crews of up to eight people working 10-hour days, 4 days per week. Short and sporadic periods of night or weekend construction may occur during reconductoring activities.

1.5.2 Operation and Maintenance

No substantial change to operation and maintenance procedures would occur as a result of the project. Daily substation monitoring and control functions would be performed on site utilizing the upgraded Supervisory Control and Data Acquisition system that would be installed as a part of the project. Unauthorized entry into all substations is prevented with the provision of fencing and locked gates. Warning signs would be posted and entry to the new substation would be restricted to authorized personnel. As a result, no new personnel would be required for the operation and maintenance of the substation.

Routine operation and maintenance would occur at the substation monthly. Maintenance activities would include equipment testing, equipment monitoring and repair, emergency and routine procedures for service continuity, and preventive maintenance. Gauges and meters would be read and recorded. A visual inspection of the entire facility would be conducted to look for problems and identified issues would be addressed or scheduled for repair. Routine operation and maintenance practices are expected to require approximately 12 trips per year by one PG&E maintenance person.

Transmission lines and structures are inspected annually. The inspector drives or walks the line to look for any indication of breakage or damage. If appropriate, the inspector would climb the tower for closer inspection. Any required repairs are scheduled and completed once the appropriate crews, equipment and materials are available.

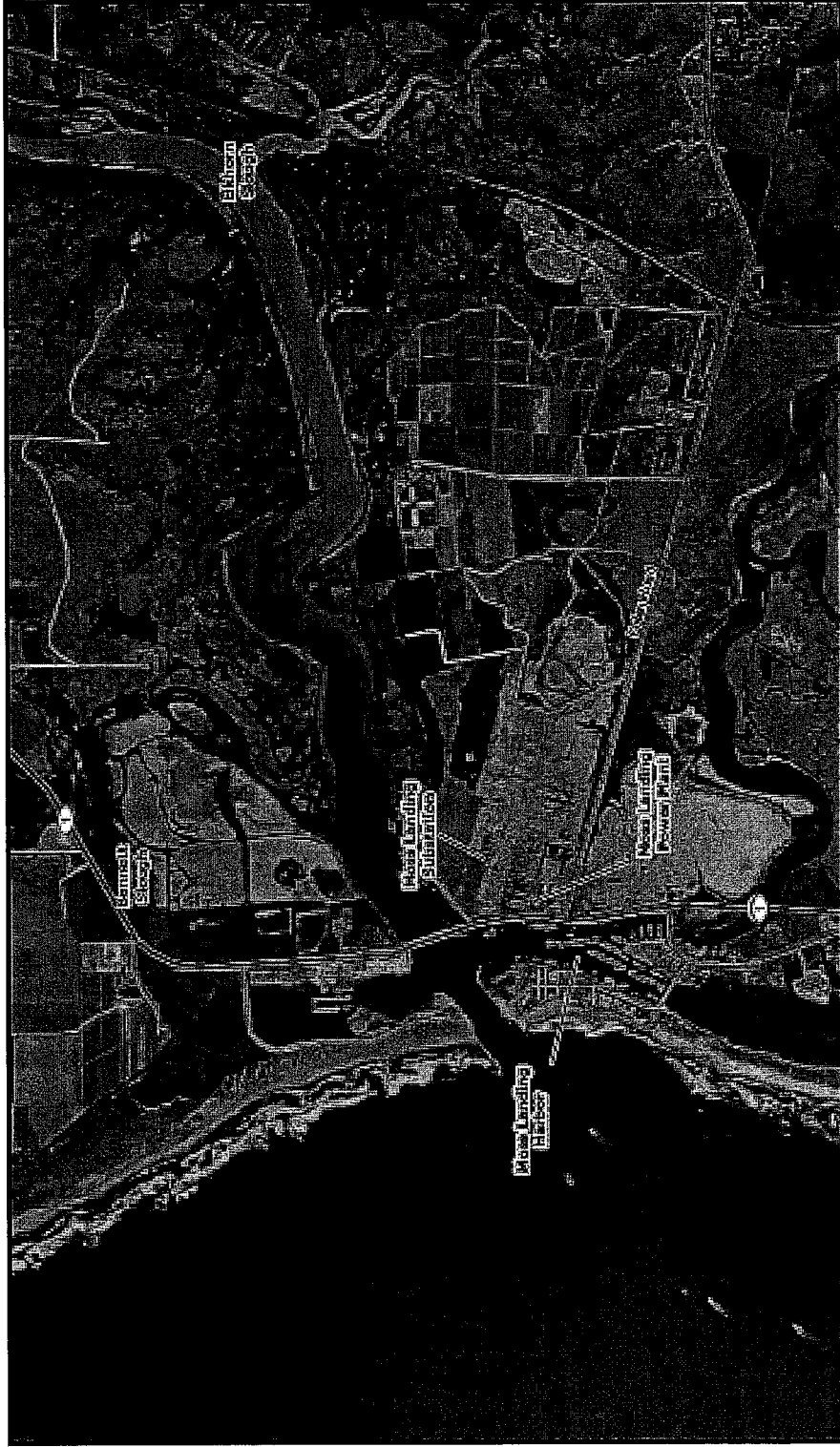






Figure 1-1: Project Vicinity Map

1:24,000
 0 1,000 2,000 4,000 6,000 Feet

