

Chapter 2

Project Purpose and Need

Project Overview

PG&E currently owns and operates a 115 kV overhead electric power line system in San Benito and Monterey Counties near the cities of Hollister and San Juan Bautista (see Figure 3-1). Both the communities of Hollister and San Juan Bautista are currently served by the Hollister Substation.

In the existing power line system configuration, the Hollister Substation is supplied by two 115 kV power lines, the Hollister Nos. 1 and 2 lines, that begin as a segment of the double-circuit Moss Landing–Salinas–Soledad 115 kV power line. In the event of an outage on either 115 kV line serving Hollister, all of the Hollister load is served from the remaining line.

The two 115 kV lines that serve the Hollister Substation begin on a single set of towers as part of the double-circuit Moss Landing – Salinas – Soledad 115 kV power line at the Lagunitas Switches near the intersection of Crazy Horse Road and San Juan Grade Road in Monterey County. From the Lagunitas Switches, the Moss Landing – Salinas – Soledad tower line heads north for approximately 7 miles (the Hollister Tower Segment). Near Anzar Junction, about 1.5 miles northwest of the City of San Juan Bautista, the tower line ends, and the Hollister No. 1 115 kV line heads easterly on wood poles to the Hollister Substation (the Hollister Pole Segment). The Hollister No. 2 115 kV line continues to the north on wood poles, then turns east and then south to reach the Hollister Substation (see Figure 3-1).

The load-serving capability of both lines serving Hollister Substation is limited by sections of 2/0 copper conductor.

The Hollister 115 kV Power Line Reconductoring Project (proposed project) includes replacing the conductors (reconductoring) on two segments of this system, the Hollister Tower Segment, which is approximately 7 miles long, and the Hollister Pole Segment, which is approximately 9 miles long. An approximately 1.3-mile section of the Hollister Pole Segment, the Proposed River Crossing, will be relocated out of the San Benito River floodplain, the existing river alignment. Except for the Proposed River Crossing, the proposed project lies within an existing easement.

Project Objectives

The proposed project is intended to meet the following objectives:

- **Meet electric demand**—To ensure that the electric system includes adequate capacity to safely and reliably serve the communities of Hollister and San Juan Bautista and the surrounding areas in San Benito County.
- **Replace aging infrastructure**—To replace aging towers that support the 115 kV power lines on the Hollister Tower Segment; existing tower structures are approximately 70 years old.
- **Improve power line system reliability and reduce harm to birds**—To reduce the frequency of line outages by installing new structures with greater spacing between the conductors and steel supports that will minimize bird contacts with the lines.
- **Comply with the California ISO Grid Planning Criteria**—To comply with the California Independent System Operator (CA ISO) grid reliability planning criteria.

Project Need

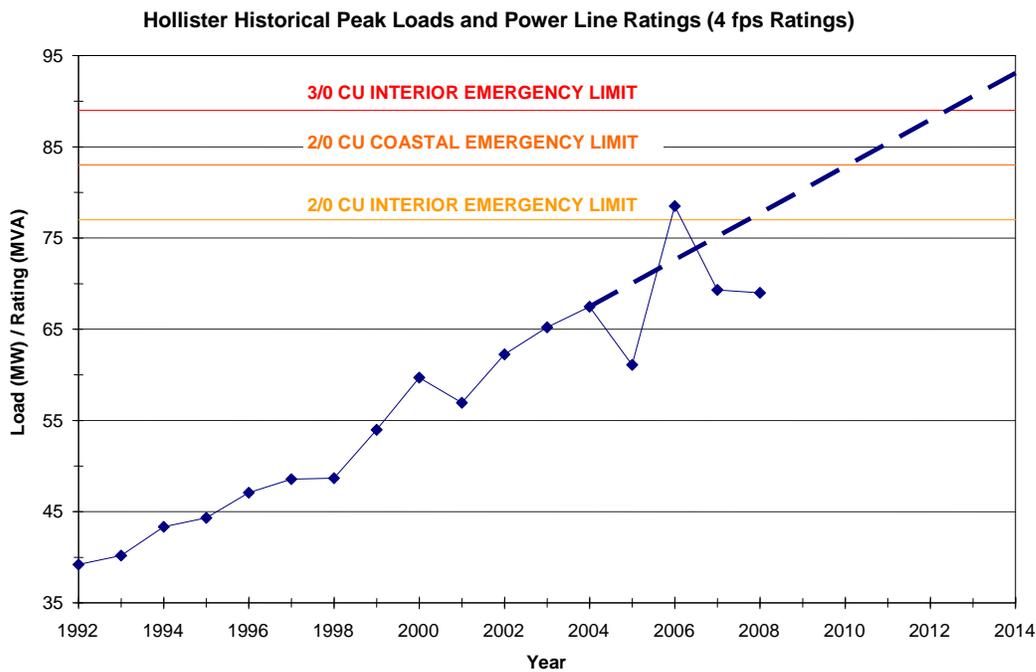
As the CPUC has repeatedly acknowledged, “need” issues are beyond the scope of a Permit to Construct (PTC) application. (See, for example, Assigned Commissioner’s Ruling dated October 16, 2002, A.01-07-004, p. 5 [“the need for the project is outside the scope of this (Atlantic-Del Mar PTC) proceeding”]; D.94-06-014, 55 CPUC 2d 87, 92 [PTC review “focuses solely on environmental concerns, unlike the CPCN process which considers the need for and economic cost of a proposed facility”]; GO 131-D, Section IX.B.1.f [“an application for a permit to construct need not include . . . a detailed analysis of purpose and necessity”].) Nonetheless, PG&E provides the following discussion of the purpose and need for the project for informational purposes.

The Hollister 115 kV Power Line Reconductoring Project is needed to improve transmission capacity and reliability in the Hollister area in order to continue to provide safe and reliable electric service to customers in the area. PG&E’s local 115 kV power line system is at risk of overloading should there be a loss of one of the two 115 kV power lines that supply the Hollister area. The proposed reconductoring work will correct this problem and help meet future demand, maintain compliance with applicable grid reliability criteria, and make it easier to maintain the transmission system.

The existing 115 kV power lines that serve the Hollister area are composed of 2/0 and 3/0 copper conductors. The load-serving capability with both lines in service is about 130 megawatts (MW). However, with one line out of service, the amount of load in Hollister that can be served is much lower. The Hollister No. 1

line is limited to 415 amperes (approximately 83 MW) by a section of 2/0 copper in the coastal temperature zone; the Hollister No. 2 line is limited to 386 amperes (approximately 77 MW) by a section of 2/0 copper in the interior temperature zone.

In the event of an outage on either 115 kV line serving Hollister, all of the Hollister load would be served from the remaining line. Figure 2-1 shows the historical peak demands for the Hollister area, as well as the emergency ratings for the conductors on the existing 115 kV lines. As illustrated, the peak load in 2006 reached approximately 78 MW, already over the load capacity of the Hollister No. 2 line.



**Figure 2-1
Hollister Peak Demands (1992–2008)**

Until the recent downturn in the housing market, the Hollister area had been growing at a rate of over 2 MW per year. (Low peak demand readings in 2005 and 2007 were due to cooler summer temperatures. The high demand reading in 2006 was due to unusually hot weather in late July.) At this rate of growth, the peak demand in Hollister would have exceeded the emergency ratings of the 2/0 copper conductor on both lines within a few years. While growth may have stalled recently, it is expected that the Hollister area will resume its growth once the economy starts recovering.

An outage of either 115 kV line into Hollister is considered a Category B disturbance under CA ISO and North American Electric Reliability Corporation (NERC) /Western Electricity Coordinating Council (WECC) planning standards. These standards require that, during a single-element outage, the power line system must be capable of serving customer demand while maintaining adequate

voltage levels and keeping line and equipment loadings within their emergency ratings. If either 115 kV line into Hollister fails during peak demand load levels, the existing system will not be able to meet this planning criterion for reliability. Overloading of either line could result in outages to both residential and commercial customers and could lead PG&E to institute rolling black-outs.

PG&E's proposal to reinforce the power line system serving the Hollister area includes replacing the existing 2/0 and 3/0 copper conductor on the Hollister Tower Segment and Hollister Pole Segment with new, higher-capacity conductors made of 477 kcmil steel-supported aluminum conductor (SSAC), which has a capacity of 1,126 amperes (approximately 220 MW). A new circuit with this same conductor will be added to the Hollister Pole Segment. With the completion of this work, the Hollister Nos. 1 and 2 115 kV lines each will have a capacity of approximately 220 MW, which current projections indicate will likely be sufficient to reliably serve the Hollister area for the next 30 years.

The tower structures on the Hollister Tower Segment between the Lagunitas Switches and Anzar Junction are roughly 70 years old and in need of replacement to ensure continuing reliability of the lines. As part of this project, PG&E will replace the old lattice towers with new towers, thus preventing future line failures due to aging structures. The new structures will utilize "raptor-friendly" design with greater spacing between the conductors and steel supports to reduce avian interactions and mortalities.