Attachment 2

Mile-by-Mile Description of the Lake Elsinore Advanced Pumped Storage Project

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Lake Elsinore Advanced Pumped Storage Project

The following discussion provides detailed information on the Lake Elsinore Advanced Pumped Storage Project. Attachment 1 and Attachment 3 to this EIR provides summary information on each tower including information on milepost location, elevation, land ownership, tower type, etc. The discussion, coupled with Figure 3.1.1-4 and the Attachments provide site specific information that can be used in conjunction impact assessment information.

The Project begins on private land approximately 1.9 miles northeast of Interstate 15 and the juncture of Indian Truck Trail/Temescal Canyon Road. The line at this point consists of a double line of lattice towers, approximately 300 feet apart that connects the existing Southern California Edison's Valley/Serrano Line to the proposed 500kV line beginning at Mile Post (MP) 0.0. Towers on the double lines are designated as Towers 1A (MP 0.0) through 13A (MP 2.75) on the northeasterly line, and 1B (MP 0.0) through 14B (MP 2.75) on the southwesterly line. At MP 0.0 there will be a 300-foot by 400-foot Pull Site, which will be used to pull the transmission lines from Towers 1A and 1B to Towers 5A and 6B (MP 0.8) respectively, and will provide additional work space to tie in to the existing SCE line.

The double tower lines run southwest generally following a ridgeline consisting of non-native grasses with elements of coastal sage scrub species. Construction impacts associated with Towers 1A through 13A and 1B through 14B consist of a temporary construction footprint (100 feet by 100 feet) and temporary access roads for some lattice towers where practical. The remaining towers will be accessed via helicopters. The parallel line terminates at the Lee Lake Switchyard at Mile Post 2.0.

At MP 0.8, a 400-foot by 600-foot pull site would be established at Towers 5A/6B. Other 400-foot by 600-foot pull sites would be established at MP 1.6 at Towers 8A/9B and at MP 2.6 at Towers 12A/13B to accommodate angle points in the lines, and to align the transmission lines for connection to the Lake Substation at MP 2.0 (an equation is shown on the attachment to translate Mile Post distances). This is immediately west of the northernmost end of Corona Lake.

The Lake Substation encompasses an area of 17.3 acres with an additional 8.1 acres of additional construction work space on private land between I-15 and Temescal Canyon Road, just east of the intersection with Indian Truck Trail. A detailed discussion of the Lake Substation can be found in Section 3.6.1.4 of Chapter 3 of this PEA.

A single line of transmission towers extends for the Lake Substation to Case Springs Substation. T22, located at MP 2.1, is immediately north of the northbound lanes of I-15. The transmission line crosses over I-15 at an elevation of approximately 1,200 feet above mean-sea-level (AMSL) with 119 foot tall ELD-type towers on both sides of I-15. A 650-foot by 1300-foot pull site (PS 23) would be established to accommodate both an angle point to the southwest (T23) and an

increase in elevation. Access roads to T23 and T24 would be established, both to accommodate construction of the towers and to provide access for PS 23.

At T25 (MP 2.7) the gen–tie line would enter Cleveland National Forest (CNF). The line would climb in elevation to T25 (MP 2.8) and would descend into a small valley that includes rural residences, a water tank and orchards. A 200-foot by 600-foot pull site would be at T26. Small individual access roads would be constructed to reach T27, T28 and T29 (MP 3.0, 3.3, and 3.5) to the south. The gen–tie line would continue south climbing in elevation. Towers 30 and 31 (MP 3.7 and 4.1) would be constructed by helicopter, while T32 (MP 4.2) would be reached by an access road. Towers 33 through 42 (MP 4.6 to 6.3) would be constructed by helicopter, except for T41. All of these towers are located within the Cleveland Nation Forest with the exception of Towers 31 and 32. These two towers are located immediately east of the Cleveland National Forest boundary in private property. A 200-foot by 600-foot pull site would be at T32. South of T32 the line runs through thick stands of chaparral.

The gen-tie line re-enters the CNF at MP 4.5 and Towers 33 (MP 4.6) through 36 (MP 5.3) would continue south. At T36 the line turns more to the southeast. At T39 (MP 5.6) the line turns south again, continuing to climb in elevation. A 200-foot by 600-foot foot pull site would be established at T39, with another angle point and pull site at T41 (MP 6.0). Access to T39 and T40 (MP5.8) would be by helicopter, while access to T41 will be from existing dirt roads that run along the ridge line. An angle point will occur at T42 (MP 6.3), with access by helicopter. T43 (MP 6.6) would be constructed by conventional means with an extensive access road constructed off of East Horse Thief Trail. An alternative access road may also be constructed from the east along an existing dirt access road. The gen-tie line again deflects to the southeast at T43 with helicopter construction continuing from T44 (MP 6.7) to T51 (MP 8.6). Slight angle points to the southeast occur at T 46 (MP 7.5) and T49 (MP 7.9), and an angle to the south is at T51.

At T52 (MP 8.8) the gen-tie line reaches the apex of the climb from the Temescal Canyon Valley. T52 would be constructed by helicopter and T53 (MP 8.9) would be conventionally constructed with an access road established off North Main Divide Truck Trail. A 200-foot by 600-foot pull site has been established at T53 (MP 8.9). The line continues southeast to T56 (MP 9.7), crossing twice over North Main Divide Truck Trail, where a pull site (PS 56) measuring 200 feet by 600 feet would be established. The line turns east across CNF lands. T54 (MP 9.1) to T58 (MP 10.3) would require construction of access roads to allow conventional construction. These roads would be established off the existing roads in the area. At T58 (MP 10.3) a 200-foot by 600-foot pull site (PS58) would be established for the crossing of Ortega Highway. Angle points in the line occur at T53, T55, T56, T57, and T58.

The line would continue southeast between Ortega Highway and South Main Divide Road with construction by helicopter for T59 (MP 10.5) through T62 (MP 11.3). A 200-foot by 300-foot pull site would be established at T63 (MP 11.5) immediately next to South Main Divide Road. No access road is necessary due to the close proximity of South Main Divide Road.

At T63, the aboveground 500 kV transmission line would transition to a below-ground gas insulated line (GIL). The transmission line will be installed in a GIL, oil filled line, or dielectric

line between MP 11.5 and MP 13.2. This area is immediately adjacent to South Main Divide Road and would be constructed across chaparral habitat in the CNF. The line is currently designed for installation through an open-cut process on the north side of South Main Divide Road. Since pull sites have been established on either end of the GIL to transition from the aboveground transmission system to belowground and back again, no additional workspaces are required.

At MP 12.4 on the 500kV transmission line, within the GIL section, a one-mile long below-ground GIL would provide connection to the Santa Rosa substation (See Section 3.6.1.4 of Chapter 3 of this PEA for a description of the substation). This GIL would be constructed on CNF lands across dense stands of chaparral.

The above-ground 500 kV transmission line would continue across the CNF at T64 (MP 13.2). A pull site at T64 (PS64) would measure 200 by 300 feet. This station would take the transition from the GIL back to aboveground transmission lines. T64 and T65 (MP 13.3) would be conventionally constructed before a series of 12 towers constructed by helicopter. T66 at MP 13.4 through T74 at MP 15.4 would traverse steep, sparsely vegetated chaparral across the CNF and would span a series of unnamed drainages. A 200-foot by 600-foot pull site (PS74) would be constructed at T74 (MP 15.4). Helicopter construction will occur from T66 to T77 (MP 16.3) and will include angle points at T68 (MP 14.1), T71 (MP 14.7), T74 (MP 15.4), and T76 (MP 15.9). Tower T78 (MP 16.6) will be conventionally constructed and accessed by a 450 foot long road that originates from the pull site at T79 (MP 16.7).

In addition to PS 79, a secondary staging area (SA) is proposed along South Main Divide Truck Trail (SA 79), approximately 2,200 feet southerly of T77 (MP 16.3). It would measure 150 feet by 1000 feet, and access to SA 79 would be from South Main Divide Truck Trail. This location has also been established as a major helicopter refueling area.

The gen–tie line turns south at T79 with a 200-foot by 600-foot pull site. This pull site would be bisected by an existing road. Portions of the proposed site have been previously disturbed, although the primary vegetation type is still chaparral. Access to T78 through T81 (MP 17.5) would be constructed from an existing dirt Forest Service access road off South Main Divide Truck Trail. Another 200-foot by 600-foot pull site at T81 (PS81) to accommodate an angle point to the southwest would be constructed in an area of denser chaparral to accommodate a turn to the southwest. Helicopter construction restarts at T82 (MP 17.7) through T84 (MP 18.2), with a slight angle point at T84, before conventional construction would resume at T85 (MP 18.5). An access road originating from private land would be constructed to T85. T 86 (MP 18.9) to T88 (MP 19.4) would be constructed by helicopter. A 200-foot by 600-foot pull site would be established at T90 (MP 19.8) to accommodate an angle in the line to the south. This pull site and T89 (MP 19.7) would be accessed by a road connected to South Main Divide Truck Trail.

PS90 is near the Truck Trail and close to the CNF boundary. The line continues south parallel to the CNF border, spanning Los Alamos Creek at MP 20.1. Conventional construction will be used to install T91 (MP 20.3) to T94 (MP 20.8), with angle points and 200-foot by 600-foot pull sites at T92 (MP 20.5) and T93 (MP 20.7). The line turns south at T93 and runs parallel and adjacent

to the CNF boundary to T107 (MP 23.7). Helicopter construction will be used for towers in this section, except for T99 (MP 21.9), which will be constructed using an access road across CNF land and private property that connects to Hacienda Drive. Vegetation along this segment of the transmission line is sparse chaparral and extensive bedrock outcrops. The transmission line again spans Los Alamos Creek and a tributary to the creek between T94 and T97 (MP 21.7).

The transmission line has a slight angle point to the southwest at T107. T108 (MP 24.4) is near Tenaja Truck Trail and will be accessed from there. T 109 (MP 24.6) will be accessed by a newly constructed road across CNF lands in areas of chaparral surrounded by non-native grasslands with sparse stands of chaparral and isolated Engelmann Oaks. The transmission line spans Tenaja Canyon Creek between Towers 108 and 109. A 200-foot by 600-foot foot pull site would be located at T109 to accommodate an angle point to the southwest, and is located in dense chaparral. A population of Orcutt's brodiaea, a plant species of concern, is known to occur in the grassland area associated with this area.

T110 (MP 24.7) through T112 (MP 25.1) will be accessed by helicopter. At T113 (MP 25.3) the gen-tie Line turns south. A 200-foot by 600-foot pull site in dense chaparral (PS113) will be accessed by a long access road constructed off of an existing private road. Towers 114 (MP 25.4) through 116 (MP 25.7) are also accessed by this road across the CNF. Towers 117 (MP 26.3) and 118 (MP 26.5) will be constructed by helicopter. Slight angle points occur at T115 (MP 25.5) and T116.

At T119 (MP 26.6) the line turns more southeasterly. A 200-foot by 600-foot pull site would be constructed at T119, and would be accessed from Cold Springs Road. T120 (MP 26.9) will be constructed conventionally with an access road originating from Margarita Road. The line continues to T121 (MP 27.1) where another angle point would require a 200-foot by 600-foot pull site. The line would again turn southerly. In addition to PS121, a secondary staging area (SA) is proposed along Tenaja Truck Trail (SA 121). It would measure 1400 feet by 1950 feet. SA 121 is located in an area of non-native grassland, bounded by oaks and chaparral. Access to SA 121 would be from Tenaja Truck Trail. This location has also been established as a major helicopter refueling area. Access from SA 121 would also extend to T121 through T124 by newly constructed roads along the CNF boundary from MP 27.1 to 27.8.

From T121 to T128 (MP 28.7) the gen-tie line runs southerly adjacent to the CNF boundary. Towers 125 (MP 28.1) through 129 (MP 28.8) would be constructed using helicopters across an area of steep chaparral-covered slopes with a slight angle point to the southwest at T128. A secondary staging area would be placed at a private airstrip approximately 3,200 feet west of T126. SA 126 would measure 200 feet by 1500 feet and would be another helicopter refueling location. This area contains a known population of thread-leaved brodiaea, a federally listed endangered plant. SA 126 would be accessed from existing roads.

An angle point to the west at T130 (MP 29.2) would require a pull site measuring 200 feet by 600 feet and would be in dense chaparral. The access road to this site will originate from an existing fire break. T131 (MP 29.3) would be conventionally constructed with access by an existing dirt road. T132 (MP 29.5) would be constructed by helicopter, with T133 (MP 29.9) and 134 (mp 30.2) constructed conventionally with short access road connections from the existing

Forest Service road. T135 (MP 30.4), T136 (MP 30.5) and T137 (MP 31.0) would be constructed by helicopter with angle points to the northwest and 200-foot by 600-foot pull sites at T136 and T137. The end of the gen–tie line terminates at T138 (MP 31.2) and will be accessed by helicopter. The tower is located within the Cleveland National Forest, adjacent to the eastern boundary of Camp Pendleton and connects directly to the Case Springs Substation for the connection into the Talega-Escondido 230 kV Line Talega, at MP 31.3.