

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Alex Ramirez
Title: Sr. Right of Way Agent
Dated: 07/17/2018

Question 01 (B-3):

Describe if the Proposed Project is located within an existing property owned by the Applicant, traverses existing rights of way (ROW) or requires new ROW. Give the approximate area of the property or the length of the project that is in an existing ROW or which requires new ROWs.

Information is provide in PEA Chapter 3.1 (Project Location) and 4.10.1.1 (Existing Land Uses). However, the PEA identifies a potential need for addition land rights for capacitors and/or repeater sites (either new rights or expanded ROW). No information is provided on the mechanism to obtain these rights. Federal land cannot be condemned, and would require ROW grants from BLM and/or NPS. This would also apply to any new access roads and work areas not already under SCE control.

A. Please give the approximate length of the project that is in existing ROW and the area of new ROW required, and its location(s).

Response to Question 01 (B-3):

The Proposed Project is mostly located in properties owned by SCE and other government agencies, and a few parcels in private properties. Below is a list of the approximate length of the existing and proposed ROW:

The Newberry Series Capacitor is cover under the BLM ROW as follows (Due to the configuration of the existing and new ROW that is required, a precise length cannot be provided as it varies. However, please see attached map.):

Total Area - 1.67ac

Existing ROW – 1.62ac

New ROW - .05ac

Width of capacitor facility – 225ft

Total Access Road - .14ac

Existing ROW - .10ac

New ROW - .04ac

The Ludlow Series Capacitor will be covered under Private Properties as follows (Due to the configuration of the existing and new ROW that is required, a precise length cannot be provided as it varies. However, please see attached map.):

Total Area – 1.67ac

Existing ROW – 1.28ac

New ROW - .39ac

Width of capacitor facility – 225ft

Total Access Road - .36ac

Existing ROW - .06ac

New ROW - .30ac

The Distribution Line ROW between Newberry & Ludlow Capacitors.

Existing ROW, BLM = .48ac, Length 2092ft, Width 10ft

New ROW, BLM = 1.02ac, Length 4452ft, Width 10ft

New ROW, Private = .49ac, Length 2138ft, Width 10ft

The Telecommunication Line ROW between Newberry & Ludlow Capacitors.

Existing ROW, BLM = .87ac, Length 3797ft, Width 10ft

Existing ROW, Private = .31ac, Length 1348ft, Width 10ft

New ROW, BLM = 1.98ac, Length 8622ft, Width 10ft

New ROW, Private = 1.13ac, Length 4927ft, Width 10ft

Barstow Repeater: (Will be covered under Private Properties)

Existing ROW, Area - .13ac, Length 100ft, Width 56ft

Existing ROW, Access Road - .01ac, Length 30ft, Width 15ft

Existing ROW, Distribution Line - .03ac, Length 123ft, Width 10ft

Existing ROW, Telecommunication Line - .14ac, Length 589ft, Width 10ft

Kelbaker Repeater: (Will be covered under NPS)

Existing ROW, Area - .06ac, Length 70ft, Width 35ft

Existing ROW, Access Road - .04ac, Length 110ft, Width 20ft

Existing ROW, Distribution Line - .18ac, Length 778ft, Width 10ft

Existing ROW, Telecommunication Line - .14ac, Length 612ft, Width 10ft

Lanfair Repeater: (Will be covered under NPS)

Existing ROW, Area - .06ac, Length 70ft, Width 35ft

Existing ROW, Access Road - .04ac, Length 110ft, Width 20ft

Existing ROW, Distribution Line - .41ac, Length 1798ft, Width 10ft

Existing ROW, Telecommunication Line - .15ac, Length 644ft, Width 10ft

The Mid-Line Series Capacitors will be covered under the existing BLM ROW Grant No. R06876. The grant expired in December 2016. An application was filed in 2016 with the BLM and NPS to renew/amend the grant to cover existing transmission facilities. The BLM is currently working with SCE to renew the grant and amend it to include the Proposed Project. However, the NPS is requiring SCE to submit a revised application to obtain a new Special Use Permit to include the repeater sites, existing transmission lines, and roads to cover both existing and proposed facilities.

A majority of the project will be constructed within SCE's existing ROW. One of the locations where SCE will be extending outside of the existing ROW and onto private property will be at the Ludlow Series Capacitor. SCE is currently negotiating with the private property owner to acquire the property. If no agreement can be reached, SCE will be exercising its power of eminent domain to acquire the new ROW. In addition, a portion of the distribution line and telecommunication line running between the Ludlow Series Capacitor and Newberry Series Capacitor lies on private property and will require the acquisition of a distribution easement. Lastly, minor extensions outside of the ROW for work areas, wire pulling sites, and landing zones will require the acquisition of a Temporary Construction Easement and/or Temporary Entry Permits.










Attachments:

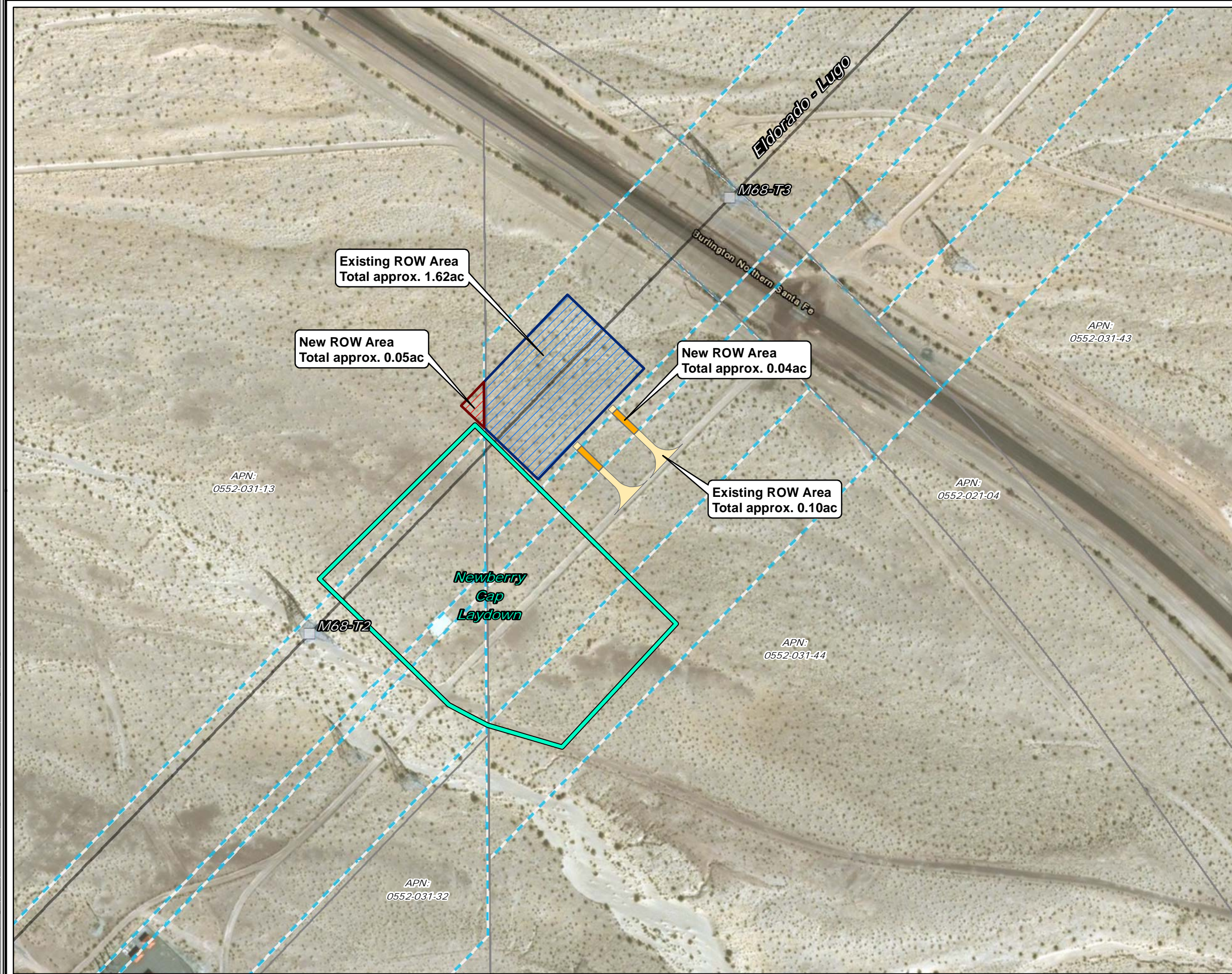
ELM Q#1 Newberry Cap 20180724

ELM Q#1 Ludlow Cap 20180724

**ELDORADO LUGO MOHAVE
SERIES CAPACITOR PROJECT
NEWBERRY CAPACITOR**

Legend

-  Existing Transmission Structures
-  Existing Transmission Lines
-  Existing Right of Way:
BLM Grant No. R-6876
-  Laydown Yard
-  Property Boundary
- Newberry Capacitor**
-  Existing ROW Area
-  New ROW Area
- Access Roads**
-  Existing ROW Area
-  New ROW Area



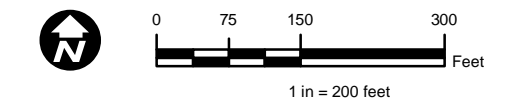
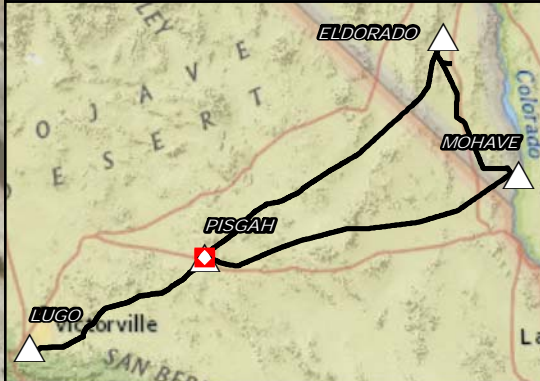
Existing ROW Area
Total approx. 1.62ac

New ROW Area
Total approx. 0.05ac

New ROW Area
Total approx. 0.04ac

Existing ROW Area
Total approx. 0.10ac

**Newberry
Gap
Laydown**












Date: 7/24/2018
 File Name: ELMSC_NewberryCap_20180724.mxd
 Version #: 1
 Created By: J. Le
Real Properties Geospatial Analysis
 Features depicted herein are planning level accuracy, and intended for informational purposes only. Distances and locations may be distorted at this scale. Always consult with the proper legal documents or agencies regarding such features. Real Properties Department
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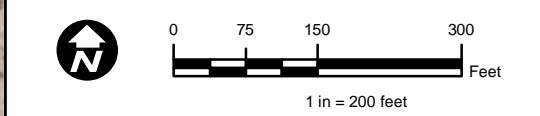
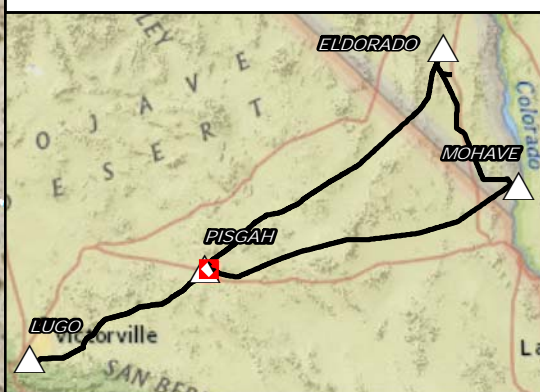
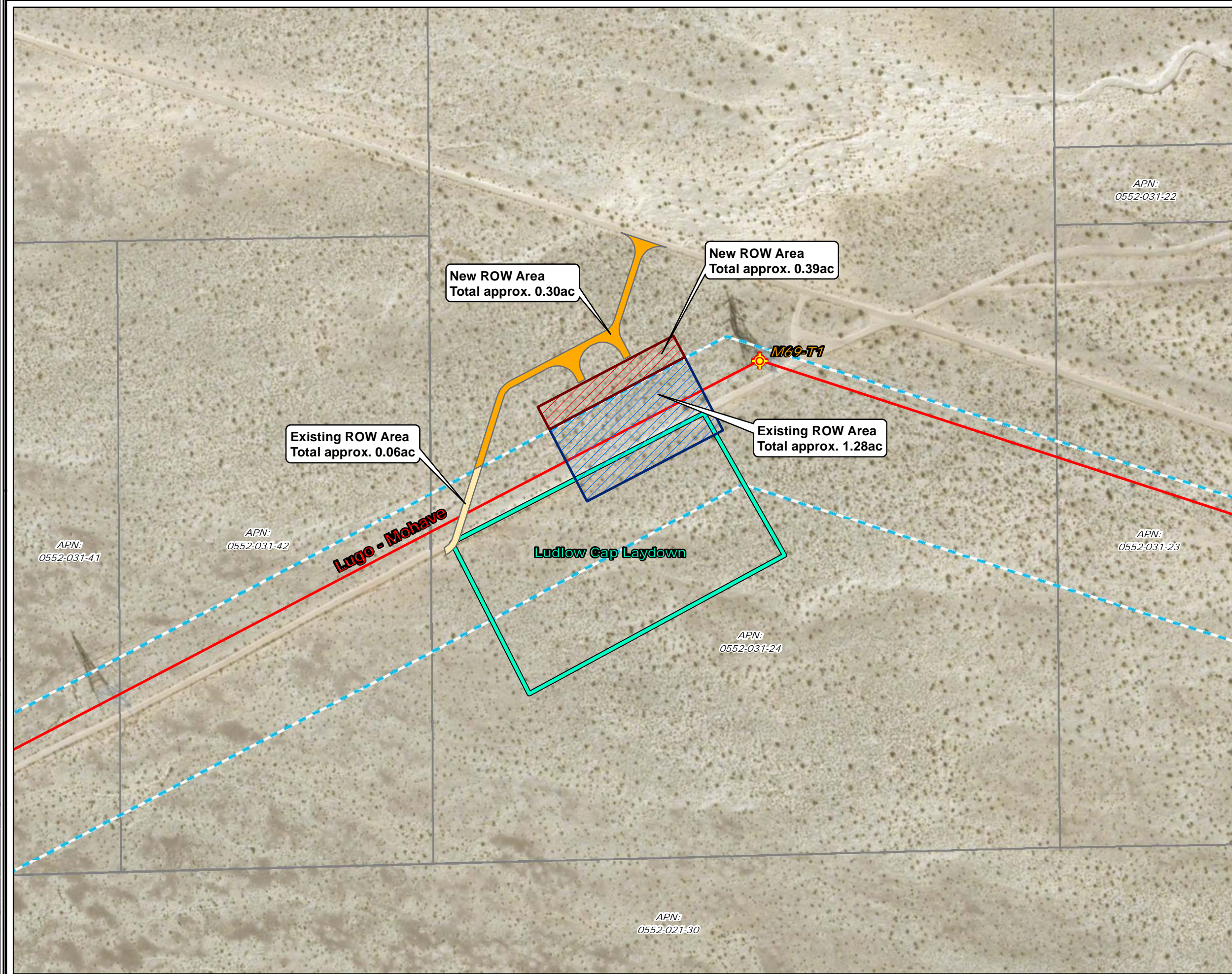


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**ELDORADO LUGO MOHAVE
SERIES CAPACITOR PROJECT
LUDLOW CAPACITOR**

Legend

-  OPGW Splicing Locations Towers
-  Transmission New OPGW
-  Existing Right of Way
-  Laydown Yard
-  Private Party
- Ludlow Capacitor**
-  Existing ROW Area
-  New ROW Area
- Access Roads**
-  Existing ROW Area
-  New ROW Area



Date: 7/24/2018
 File Name: ELMSC_LudlowCap_20180724.mxd
 Version #: 1
 Created By: J. Le
Real Properties Geospatial Analysis

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Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Lamar Cunningham
Title: Project Engineer
Dated: 07/17/2018

Question 02 (B-3):

Provide a schematic diagram that illustrates the system as it would be configured with implementation of the Proposed Project.

Chapter 3, Figure 3-3. Schematics of various project components are provided, however, no schematic drawings of the improvements to the substations were provided in the PEA.

A. Please provide schematic diagrams of changes to the affected substations.

Response to Question 02 (B-3):

The Chapter 3, Figure 3-3 schematic is basically the same in the existing state as well as the proposed state, with the exception of the midline series capacitor additions. The remaining improvement areas include series capacitor upgrades that reside at the Eldorado, Lugo and Mohave substations.

The physical improvement areas for the line position work and series capacitors within Eldorado, Lugo and Mohave substations are shown in the attachments. Note: Improvement work does not include work in MEERs, Control Buildings or cabling systems running from these buildings to the physical improvement areas.

Attachments:

ELM_Q2_Q14_Q15- 3.5.4 Substations_Electrical Arrangement Drawings SC6
ELM_Q2_Q14_Q15- 3.5.4 Substations_Electrical Arrangement Drawings SC1andSC4
ELM_Q2_Q14_Q15- 3.5.4 Substations_Electrical Arrangement Drawings SC3
ELM_Q2_Q14_15 Response_LUGO PP
ELM_Q2_Q14_15 Response_ELDORADO PP
ELM_Q2_Q15 Response_ELDORADO LUGO POS 8
ELM_Q2_Q15 Response_LUGO_ELD POS 3X-MOH POS 4X
ELM_Q2_Q15 Response_MOHAVE_ELD POS1-LUGO POS3
ELM_Q2_Q14_15 Response_MOHAVE PP

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Sheridan Mascarenhas
Title: Senior Engineer
Dated: 07/17/2018

Question 03A (B-4):

Describe whole of the Proposed Project. Is it an upgrade, a new line, new substations, etc.?

Section 3.4 describes the Proposed Project. However, Section 3.5.2.4 (Distribution Poles) identifies approximately 100 wood poles that are to be installed. A footnote states that they are subject to further design and are not included in the GIS data submitted. These poles are not included in the Project Components list (Section 1.1) although the components list does include the extension or reroute of approximately 2 miles of overhead 12 kV distribution circuits to provide light and power to the Newberry Springs and Ludlow series capacitors, which may be where the 100 poles would be installed. This is not clear. Nor is it clear what access exists or would need to be developed for these poles.

A. Please provide the location of the distribution poles and any associated work areas and any earthwork, such as trenching, new access or spur road, etc. Revise the project description to include the distribution component of the project. Include this distribution component of the project on maps such as are provided in Appendix e. Detailed Route Maps.

Response to Question 03A (B-4):

The estimated 100 poles include the distribution components of the Project. This would include distribution line extensions to the two mid-line series capacitors and three fiber optic repeater sites. The estimate also includes the installation and/or relocation of distribution facilities to correct transmission line infractions.

In response to this request, SCE has conducted a desktop analysis of proposed distribution pole locations, which will be provided with the revised GIS data to be sent to the CPUC by July 31, 2018. However, the pole locations provided are based on a desktop analysis only and are subject to change. The final locations of the proposed Distribution facilities would be determined after final engineering is completed. We plan to complete final engineering in the first quarter of 2019.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Sheridan Mascarenhas
Title: Senior Engineer
Dated: 07/17/2018

Question 03A (B-4) Supplemental:

Describe whole of the Proposed Project. Is it an upgrade, a new line, new substations, etc.?

Section 3.4 describes the Proposed Project. However, Section 3.5.2.4 (Distribution Poles) identifies approximately 100 wood poles that are to be installed. A footnote states that they are subject to further design and are not included in the GIS data submitted. These poles are not included in the Project Components list (Section 1.1) although the components list does include the extension or reroute of approximately 2 miles of overhead 12 kV distribution circuits to provide light and power to the Newberry Springs and Ludlow series capacitors, which may be where the 100 poles would be installed. This is not clear. Nor is it clear what access exists or would need to be developed for these poles.

A. Please provide the location of the distribution poles and any associated work areas and any earthwork, such as trenching, new access or spur road, etc. Revise the project description to include the distribution component of the project. Include this distribution component of the project on maps such as are provided in Appendix e. Detailed Route Maps.

Response to Question 03A (B-4) Supplemental:

ELM Series Capacitor Project
Deficiency Question 3A Supplemental Response

As indicated in SCE's response to Deficiency Question 3A, this supplemental response includes the revised GIS data information.

The GIS data has changed since SCE's original submittal on 5/2/18. For GIS changes please refer to change log tab 'eng_DistributionStructure_Pt' to identify the locations of poles on the GIS map package. The revised GIS data is being separately submitted to the CPUC / Aspen.

See Response 5B Supplemental for change log Attachment:
ELMSC_PEA_Design_Data_v2_20180809_ChangeLog.xlsx; tab 'eng_DistributionStructure_Pt'

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: John Le
Title: Technical Specialist
Dated: 07/17/2018

Question 03B (B-4):

Describe whole of the Proposed Project. Is it an upgrade, a new line, new substations, etc.?

Section 3.4 describes the Proposed Project. However, Section 3.5.2.4 (Distribution Poles) identifies approximately 100 wood poles that are to be installed. A footnote states that they are subject to further design and are not included in the GIS data submitted. These poles are not included in the Project Components list (Section 1.1) although the components list does include the extension or reroute of approximately 2 miles of overhead 12 kV distribution circuits to provide light and power to the Newberry Springs and Ludlow series capacitors, which may be where the 100 poles would be installed. This is not clear. Nor is it clear what access exists or would need to be developed for these poles.

B. Please confirm that all access roads are included in Appendix e. Detailed Route Maps and the GIS data, and in all calculations of disturbed areas. If not, please update this information. Include access to the 12 kV distribution system noted above as well as new permanent and temporary access roads developed under the proposed project.

Response to Question 03B (B-4):

SCE confirms that all access roads are included in Appendix E which was submitted with the PEA to the CPUC. At this time, SCE is still in discussion with Sempra to co-locate our proposed 12 kV Distribution line with an existing Sempra high-pressure gas line in an existing BLM easement which includes an access road. Once SCE and Sempra come to an agreement, SCE will begin working on the final design of the 12 kV distribution system and will forward it over to the CPUC in the first quarter of 2019.

On July 31, 2018, SCE will provide a desk-top analysis of the distribution poles and lines (included in the revised GIS Data Map Package) so the CPUC's consultant can analyze the environmental impacts along the distribution route between the capacitors which has already been surveyed.

Additionally, the PEA and GIS data includes environmental data on the Preferred Route which travels along the existing BLM easement between the two capacitors. Under a conservative scenario, if the 100 distribution poles were to be used in the design of the proposed distribution system, the temporary and permanent disturbance would be as follows:

TEMPORARY DISTURBANCE

Typical work area per pole = 40 ft. x 60 ft. = 2,400 sq. ft.

For 100 poles 2400 x 100 = 240,000 sq. ft.

Total acres disturbed = 240,000 / 43,560 = **5.5 acres**

PERMANENT DISTURBANCE

Typical area per pole = 5 sq. ft.

Typical area per pole anchor = 0.1 sq. ft.

TOTAL = 5.1 sq. ft.

For 100 poles 5.1 x 100 = 510 sq. ft.

Total acres disturbed = 510 / 43,560 = **0.01 acres** (This can be reduced to less than 0.01 acres as we have over-estimated permanent disturbance per pole)

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Melaney Thiel
Title: Construction Project Manager
Dated: 07/17/2018

Question 03C (B-4):

Describe whole of the Proposed Project. Is it an upgrade, a new line, new substations, etc.?

The project description addresses the level of O&M staffing (Section 3.8.1) but does not identify whether additional staff will be required for O&M or if O&M will be performed by existing staff or contractors, and no additional staff will be required.

C. Please confirm if there are any new staff required for ongoing O&M of the proposed project.

Response to Question 03C (B-4):

O&M activities for the proposed project will not require full-time staffing. O&M activities will only be needed for requesting and holding SCE circuit clearances, and patrolling the circuits as needed. The existing facilities with the addition of the new mid-line series capacitors will be included into the existing staff's roles and responsibilities. There will be no additional O&M staffing from Substation, Transmission, Sub-Transmission, Distribution or Transmission Telecom required for the proposed project. O&M Substation staffing will be supported and mobilized from a pre-existing pool of employees based out of Lugo and/or Eldorado Substations.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Fernando Benevides
Title: Electric System Planning
Dated: 07/17/2018

Question 04A (B-5):

Describe all reasonably foreseeable future phases, or other reasonably foreseeable consequences of the Proposed Project.

Future system upgrades resulting from project implementation are not discussed. No discussion is provided in the PEA of potential upgrades elsewhere on transmission and distribution systems that may result from increasing the capacity of the 500 kV lines in the proposed project. E.g., no information is provided on renewable projects that would be able to go forward due to increased capacity or on any transmission system changes that may be required from increased power being delivered over the project lines.

A. Please identify what existing or potential renewable or other energy projects may make use of the increased transmission capacity on the lines.

Response to Question 04A (B-5):

Several projects including those that are in service, have a signed interconnection agreement (IA) but have not yet commenced commercial operation, and projects in queue which have not yet signed an IA will make use of the increased transmission capacity on the Eldorado-Lugo and Lugo-Mohave 500 kV Transmission Lines (500 kV Lines). Completion of the Proposed Project is required in order for these projects to achieve Full Capacity Deliverability Status (FCDS). Projects that are in service, in addition to projects that have signed IA's but that have not yet commenced commercial operation, are provided in Table 4A-1 below. Note that projects within the SCE, Valley Electric Association (VEA) and GridLiance service territories are affected.

Table 4A-1

CAISO Queue Position	CAISO Study	Technology	Project Size (MW)	Project Status	Comments
643AE	QC3	Photovoltaic	150	IA – Executed	(SCE) Red Bluff 230kV Bus
855	QC4	Photovoltaic	92	In-Service	(SDG&E) Merchant 220kV Bus
993/994	QC6	Photovoltaic	100	IA-Executed (VEA)	(VEA) Valley 138kV Bus
1064	QC7	Energy Storage	44	UFA – Executed	(GridLiance) Gamebird 230 kV Bus interconnection
1196	QC8	Photovoltaic	400	IA-Executed	(SCE) Colorado River 230 kV Bus

Additionally, information provided by the CAISO details that there are two (2) additional projects within the SDG&E service territory that each have signed IA's (Q1053 & Q1166) that require completion of the Proposed Project to achieve FCDS. Further information for these two projects is available from the CAISO.

In addition to the generation projects listed in Table 4A-1, completion of the Proposed Project is also required for several generation projects that have applied to interconnect for either FCDS that have not yet signed an IA. These projects are listed in Table 4A-2 below. In addition to projects within the SCE service territory that are affected, projects within the VEA, GridLiance, and SDG&E service territories also benefit from and require the increase in capacity of the 500 kV Lines. Projects listed in Table 4A-2 details Projects within the SCE and GridLiance Service Territory require completion of the Proposed Project to achieve FCDS. Note that the projects listed in Table 4A-2 as well as the individual status of each project is dynamic. As additional Queue Cluster Studies proceed, additional generation projects may also be added to the list depending on their proposed POI and dependency of the 500 kV line capacity increase.

Table 4A-2

CAISO Queue Position	CAISO Study	Technology	Project Size (MW)	Project Status	Comments
1192	QC 8	Hybrid	350	Colorado River 220 kV Bus	Parked
1198	QC 8	Photovoltaic	150	Colorado River 220 kV Bus	Parked
1200	QC 8	Photovoltaic	200	Red Bluff 220 kV Bus	Parked
1218	QC 8	Photovoltaic	400	Mohave 500 kV Bus	Parked
1295	QC 9	Energy Storage	400	Devers 220 kV Bus	IA-Under Development
1302	QC 9	Hybrid	213.5	Red Bluff 220 kV Bus	Phase II Study Complete
1336	QC9	Photovoltaic	375	Mohave 500 kV Bus	Parked
1339	QC 9	Photovoltaic	300	Eldorado 220 kV Bus	IA-Under Development
1341	QC9	Photovoltaic	250	GridLiance) Crazy Eyes 230 kV Bus	Phase II Study Complete
1347	QC 9	Wind	303	(GridLiance) Bob 230 kV SS	Phase II Study Complete
1400	QC 10	Photovoltaic	266.5	(GridLiance) Crazy Eyes 230 kV Bus	Phase II Study in Progress
1402	QC 10	Hybrid	3200	Delaney-Colorado River 500 kV Line	Phase II Study in Progress
1403	QC 10	Hybrid	450	Delaney 500 kV Bus	Phase II Study in Progress
1405	QC 10	Hybrid	450	Red Bluff 220 kV Bus	Phase II Study in Progress
1406	QC10	Hybrid	675	Colorado River 220 kV Bus	Phase II Study in Progress

Project Size (MW) in the table represents the Requested Maximum Project Delivery at the Point of Interconnection.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Fernando Benevides
Title: System Planning
Dated: 07/17/2018

Question 04B (B-5):

Describe all reasonably foreseeable future phases, or other reasonably foreseeable consequences of the Proposed Project.

Future system upgrades resulting from project implementation are not discussed. No discussion is provided in the PEA of potential upgrades elsewhere on transmission and distribution systems that may result from increasing the capacity of the 500 kV lines in the proposed project. E.g., no information is provided on renewable projects that would be able to go forward due to increased capacity or on any transmission system changes that may be required from increased power being delivered over the project lines.

B. Please provide information on new or changed transmission or distribution assets that may be required as a result of increasing the capacity of the project's 500 kV lines.

Response to Question 04B (B-5):

Separate from the upgrades that have already been outlined within the scope of work related to the Proposed Project, there are no identified potential upgrades elsewhere within the SCE transmission and distribution system.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Sheridan Mascarenhas
Title: Senior Engineer
Dated: 07/17/2018

Question 05A (B-5):

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Initial GIS data have been provided to Aspen Environmental Group, CPUC's Environmental Contractor. However, the data are incomplete and have changed since being provided. As noted above, the PEA states that approximately 100 wood distribution poles would be installed as part of the project.

A. Please provide the GIS data for these pole locations. If final engineering is not available, please provide preliminary locations.

Response to Question 05A (B-5):

In response to this request, SCE has conducted a desktop analysis of proposed distribution pole locations, which will be provided with the revised GIS data to be sent to the CPUC on July 31, 2018. However, the pole locations provided are based on a desktop analysis only and are subject to change. The final locations of the proposed Distribution facilities would be determined after final engineering is completed. We plan to complete final engineering in the first quarter of 2019.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Sheridan Mascarenhas
Title: Sr. Engineer
Dated: 07/17/2018

Question 05A (B-5) Supplemental:

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Initial GIS data have been provided to Aspen Environmental Group, CPUC's Environmental Contractor. However, the data are incomplete and have changed since being provided. As noted above, the PEA states that approximately 100 wood distribution poles would be installed as part of the project.

A. Please provide the GIS data for these pole locations. If final engineering is not available, please provide preliminary locations.

Response to Question 05A (B-5) Supplemental:

As indicated in SCE's response to Deficiency Question 5A, this supplemental response includes the revised GIS data information.

The GIS data has changed since SCE's original submittal on 5/2/18. For GIS changes please refer to change log tab 'eng_DistributionStructure_Pt' to identify the locations of poles on the GIS map package. The revised GIS data is being separately submitted to the CPUC / Aspen.

Please see Attachment ELMSC_PEA_Design_Data_v2_20180809_ChangeLog.xlsx; tab 'eng_DistributionStructure_Pt' shown in 5B Supplemental

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Rey Gonzales
Title: Environmental Project Manager
Dated: 07/17/2018

Question 05B (B-5):

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Ten proposed helicopter landing zones (HLZs) have been eliminated per email communications between Rey Gonzales (SCE) to Jim Shearer (BLM).

B. Please provide updated GIS data that eliminates these LZ locations. If new HLZs are planned, indicate where they would be located.

Response to Question 05B (B-5):

The 10 Helicopter Landing Zones (HLZs) have been removed from the project at the request of the BLM. SCE is not providing any additional HLZs in the project area to take the place of those that have been removed. An updated GIS Data Package will be provided to the CPUC by July 31, 2018.

Landin g Zone	Transmission Line	Tower Referenc e	Remove d Yes/No	Alternate Landing Zone To Be Used* (If applicable)	Cultural Resource Reference	Land Status
LZ-30	Lugo-Mohave	M22-T4	Yes	LZ-29 or LZ-32	P-36-000181/CA-SBR-1 81	BLM Barstow
LZ-69	Lugo-Mohave	M54-T1	Yes	LZ-68 or LZ-70	P-36-006512/CA-SBR-6 512	BLM Barstow

LZ-79 LZ-80 LZ-81	Lugo-Mohave	M66-T2	Yes	LZ-78 or LZ-82	P-36-001505/CA-SBR-1 505	BLM Barstow
LZ-120	Lugo-Mohave	M108-T2	Yes	LZ-118 or LZ121	P-36-025096/CA-SBR-1 0648	Mojave National Preserve
LZ-158	Lugo-Mohave	M144-T2	Yes	Goffs Staging Yards**	P-36-029069/CA-SBR-2 9069H	Mojave National Preserve
LZ-202	Mohave-Eldora do	M34-T2	Yes	LZ-201 or LZ 203/204	ELM-JK-136	BLM Las Vegas
LZ-205	Mohave-Eldora do	M35-T3	Yes	LZ-203/204 or LZ-207	26CK10529	BLM Las Vegas
LZ-208	Mohave-Eldora do	M37-T4	Yes	LZ-207 or LZ-209/210	26CK10527	BLM Las Vegas

Note:

* New Landing Zones range from approximately 0.17 to 2.9 miles away from the original proposed Landing Zone locations.

** As indicated in Section 3.7.1.4 Helicopter Access of the PEA, this section does indicate that helicopters may land in staging and material yards.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Rey Gonzales
Title: Environmental Project Manager
Dated: 07/17/2018

Question 05B (B-5) Supplemental:

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Ten proposed helicopter landing zones (HLZs) have been eliminated per email communications between Rey Gonzales (SCE) to Jim Shearer (BLM).

B. Please provide updated GIS data that eliminates these LZ locations. If new HLZs are planned, indicate where they would be located.

Response to Question 05B (B-5) Supplemental:

As indicated in SCE's response to Deficiency Question No. 5B, this supplemental response includes the revised GIS data information.

The GIS data has changed since SCE's original submittal on May 2, 2018.

The 11 Helicopter Landing Zones (HLZs) listed below have been removed from the project at the request of the BLM. SCE is not providing any additional HLZs in the project area to take the place of those that have been removed.

Overall, the amount of HLZs have been reduced from 219 to 206. This includes the HLZs that were requested to be removed by the National Park Service (LZ_119), and by SCE due to personnel safety issues (LZ_11). With the removal of the 13 HLZs, the Total Approximate Area Disturbed during Construction (Acres) has been reduced from 71.6 acres to 55 acres. This reduced amount of acreage is considered temporary and will be restored at the end of the project; if required.

For information related to the removal of the HLZs, please refer to the response for Supplemental Deficiency Question No. 5C to view all revised PEA Tables due to project modifications.

For a history of all the project related modifications including the requested GIS data, please see Attachments:

ELMSC_PEA_Design_Data_v2_20180809_ChangeLog.xlsx (see const_Construction_Area tab for revisions related to Landing Zone removals)

ELMSC_PEA_Design_Data_v2_20180809.mpk

ELMSC_PEA_Design_Data_v2_20180809_DataDictionary.xlsx

Landing Zone	Transmission Line	Tower Reference	Removed Yes/No	Alternate Landing Zone To Be Used* (If applicable)	Cultural Resource Reference	Land Status
LZ-30	Lugo-Mohave	M22-T4	Yes	LZ-29 or LZ-32	P-36-000181/CA-SB R-181	BLM Barstow
LZ-69	Lugo-Mohave	M54-T1	Yes	LZ-68 or LZ-70	P-36-006512/CA-SB R-6512	BLM Barstow
LZ-79 LZ-80 LZ-81	Lugo-Mohave	M66-T2	Yes	LZ-78 or LZ-82	P-36-001505/CA-SB R-1505	BLM Barstow
LZ-120	Lugo-Mohave	M108-T2	Yes	LZ-118 or LZ-121	P-36-025096/CA-SB R-10648	Mojave National Preserve
LZ-158	Lugo-Mohave	M144-T2	Yes	Goffs Staging Yards**	P-36-029069/CA-SB R-29069H	Mojave National Preserve
LZ-202	Eldorado-Mohave	M34-T2	Yes	LZ-201 or LZ-203	ELM-JK-136	BLM Las Vegas
LZ-204	Eldorado-Mohave	M34-T3	Yes	LZ-203 or LZ-206	Site 53-9367/26CK1055 4	BLM Nevada
LZ-205	Eldorado-Mohave	M35-T3	Yes	LZ-203 or LZ-206	26CK10529	BLM Las Vegas
LZ-208	Eldorado-Mohave	M37-T4	Yes	LZ-207 or LZ-209/210	26CK10527	BLM Las Vegas

Note:						
* New Landing Zones range from approximately 0.03 to 2.9 miles away from the original proposed Landing Zone locations.						
** As indicated in Section 3.7.1.4 Helicopter Access of the PEA, this section does indicate that helicopters may land in staging and material yards.						

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Rey Gonzales
Title: Environmental Project Manager
Dated: 07/17/2018

Question 05C (B-5):

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Ten proposed helicopter landing zones (HLZs) have been eliminated per email communications between Rey Gonzales (SCE) to Jim Shearer (BLM).

C. Please update all tables and calculations showing permanent and temporarily disturbed areas affected by these HLZ changes (as well as the 100-pole distribution system noted above.).

Response to Question 05C (B-5):

The impact calculations presented in the PEA are considered conservative as they include the 10 helicopter landing zones that have been removed as part of the GIS Data Package discussed in response to Question 5B. Revised impact calculations will be provided as a separate submittal by July 31, 2018.

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Rey Gonzales
Title: Environmental Project Manager
Dated: 07/17/2018

Question 05C (B-5) Supplemental:

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Ten proposed helicopter landing zones (HLZs) have been eliminated per email communications between Rey Gonzales (SCE) to Jim Shearer (BLM).

C. Please update all tables and calculations showing permanent and temporarily disturbed areas affected by these HLZ changes (as well as the 100-pole distribution system noted above.).

Response to Question 05C (B-5) Supplemental:

As indicated in SCE's response to Deficiency Question No. 5C, this supplemental response includes the revised GIS data information.

Please see the attached Tables which display the revised permanent and temporary disturbed areas affected by the removal of the Helicopter Landing Zones (HLZs); (see Supplemental Deficiency Response No. 5B for specific information regarding the removed HLZs); the temporary placement of the 100-pole distribution system; and the additional modifications made by SCE to improve the design, and to avoid environmental impacts. The revised Tables are presented in "Track Changes" so the CPUC (Aspen) can identify where the changes have occurred.

Attachment:

ELM_Q#5C_3.4 Proposed Project_Revised Impact Calculations_20180809 (PDF and Word versions) which includes the following tables:

Table 3-5: Mid-Line Series Capacitor Cut and Fill Grading Summary

Table 3-6: Mohave Substation Cut and Fill Grading Summary

Table 3-9: Transmission, Subtransmission, and Distribution Approximate Land Disturbance

Table 3-10: Mid-Line Series Capacitor Ground Surface Improvements Materials

Table 3-11: Mid-Line Series Capacitor Estimated Land Disturbance

Table 3-13: Fiber Optic Repeater Estimated Land Disturbance

Table 3-14: Proposed Project Estimated Land Disturbance

Table 4.4-6: Impacts to Sensitive Natural Communities

Table 4.4-7: Water Features to be Impacted by the Proposed Project

Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-001

To: ENERGY DIVISION
Prepared by: Rey Gonzales
Title: Environmental Project Manager
Dated: 07/17/2018

Question 05C Supplemental 2 :

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROW, substation locations, poles, etc.) as well as the proposed pole locations, transmission lines, substations, etc. For elements related to construction include: proposed or likely lay-down areas, work areas at the pole sites, pull and tension sites, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc. More details about this type of information are provided below.

Ten proposed helicopter landing zones (HLZs) have been eliminated per email communications between Rey Gonzales (SCE) to Jim Shearer (BLM).

C. Please update all tables and calculations showing permanent and temporarily disturbed areas affected by these HLZ changes (as well as the 100-pole distribution system noted above.).

Response to Question 05C Supplemental 2 :

Upon review, SCE realized the work proposed at tower location M68-T4 was not included in the updated Table 3-9 which was sent to the CPUC on August 13, 2018. Therefore, this supplemental response is needed to show that the total under "Approximate Number of Structures" for "500 kV LST (Tower body and peak modifications)" would increase from 59 to 60 as displayed below. The GIS data (dated August 9, 2018) accurately displays the work areas at M68-T4 and does not have to be revised.

Table 3-9: Transmission, Subtransmission, and Distribution Approximate Land Disturbance

Proposed Project	Approximate Number of	Typical Work Area	Approximate Area Disturbed during	Approximate Area to be Restored	Approximate Area Permanently
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Feature	Structures	(L x W) (Feet)	Construction (Acres)	(Acres)	Disturbed (Acres)
500 kV LST (Raised)	9	100 x 100	2.1	2.1	0.0
500 kV LST (Tower body and peak modifications)	59 60	100 x 100	13.6	13.6	0.0
500 kV TSP (New)	2	220 x 150	0.2	N/A	N/A*
115 kV Wood Pole (Existing to be Modified)	2	150 x 75	0.5	0.5	0.0
16 kV Wood Pole (New)	22	40 x 60	1.2	1.2	<0.01
12 kV Wood Pole (New)	78	40 x 60	4.3	4.3	<0.01
12 kV Wood Pole (Existing to be Modified)	3	40 x 40	0.1	0.1	0.0

Chapter 3 - Project Description

Table 3-5: Mid-Line Series Capacitor Cut and Fill Grading Summary

Element	Material	Approximate Surface Area (Square Feet)	Approximate Volume (Cubic Yards)
Site Grading, Cut ¹²	Dirt	113,700 90,830	14,800 5,220
Site Grading, Fill ¹²	Dirt & Rock	132,700 162,320	17,600 10,060
Over-excavation ¹³	Dirt	179,300 253,150	9,500 25,700
Site Grading, Net ¹²	Dirt & Rock	246,300 253,150	-2,800 4,910 (Imported Fill)
External Roads, Spoils, Net ¹⁴	Dirt	11,300 16,240	0
Equipment Foundations, Spoils, Cut	Dirt	12,100 12,540	1,000 1,080
Cable Trench, Spoils, Cut	Dirt	N/A	N/A
Drainage Structure, Spoils, Cut	Dirt	N/A	N/A

Table 3-6: Mohave Substation Cut and Fill Grading Summary

Element	Material	Approximate Surface Area (Square Feet)	Approximate Volume (Cubic Yards)
Site Grading, Cut ¹⁵	Dirt	3,300 <u>37,380</u>	400 <u>610</u>
Site Grading, Fill ¹⁵	Dirt & Rock	6,600 <u>11,830</u>	200 <u>670</u>
Over-excavation ¹⁶	Dirt	0 <u>38,200</u>	0 <u>1,420</u>
Site Grading, Net ¹⁵	Dirt & Rock	9,900 <u>49,210</u>	-200 <u>60</u> (Imported Fill)
External Roads, Spoils, Net	Dirt	0 <u>N/A</u>	0 <u>N/A</u>
Equipment Foundations, Spoils, Cut	Dirt	3,700	300
Cable Trench, Spoils, Cut	Dirt	0 <u>N/A</u>	0 <u>N/A</u>
Drainage Structure, Spoils, Cut	Dirt	0 <u>N/A</u>	0 <u>N/A</u>

Table 3-9: Transmission, Subtransmission, and Distribution Approximate Land Disturbance

Proposed Project Feature	Approximate Number of Structures	Typical Work Area (L x W) (Feet)	Approximate Area Disturbed during Construction (Acres)	Approximate Area to be Restored (Acres)	Approximate Area Permanently Disturbed (Acres)
500 kV LST (Raised)	9	100 x 100	2.1	2.1	0.0
500 kV LST (Tower body and peak modifications)	59	100 x 100	13.6	13.6	0.0
500 kV TSP (New)	2	220 x 150	0.2	N/A	N/A*
115 kV Wood Pole (Existing to be Modified)	2	150 x 75	0.5	0.5	0.0
<u>16 kV Wood Pole (New)</u>	<u>22</u>	<u>40 x 60</u>	<u>1.2</u>	<u>1.2</u>	<u><0.01</u>
12 kV Wood Pole (New)	100 <u>78</u>	40 x 60	5.5 <u>4.3</u>	5.5 <u>4.3</u>	< <u>0.01</u>
12 kV Wood Pole (Existing to be Modified)	3	40 x 40	0.1	0.1	0.0

Table 3-10: Mid-Line Series Capacitor Ground Surface Improvement Materials

Element	Material	Approximate Area (Acres)	Approximate Volume (Cubic Yards)
Access Road Surface Areas ¹⁹	Dirt	0.30 0.4	0 0
Mid-Line Series Capacitor Paved Areas ²⁰	Asphalt	0.8	259.0 282
Internal Road Surface Areas ²¹	Aggregate Base	0.8 1.1	664.0 789
Gravel Surfacing ²²	Crushed Gravel	3.2 2.5	1698.0 1,199
Parking Surfacing	Asphalt/Aggregate Base	N/A	N/A

Table 3-11: Mid-Line Series Capacitor Estimated Land Disturbance

Proposed Project Feature	Quantity	Approximate Area Disturbed during Construction (Acres) ¹	Approximate Area to be Restored (Acres)	Approximate Area Permanently Disturbed (Acres)
Newberry Springs Series Capacitor	1	3.86 5	0.80 6	1.43 2
Ludlow Series Capacitor	1	4.0 3	1.1 5	3.2 2.5

¹ Land disturbance acreage during construction is greater than the acreage associated with the permanent facility as described in Section [Error! Reference source not found.3-5.4 Error! Reference source not found.Mid-Line Series Capacitors](#).

Table 3-13: Fiber Optic Repeater Estimated Land Disturbance

Fiber Optic Repeater	Quantity	Approximate Area Disturbed during Construction (Acres)	Approximate Area to be Restored (Acres)	Approximate Area Permanently Disturbed (Acres)
Barstow	1	0.437	0.63	0.13
Kelbaker	1	1.04	0.93	0.1
Lanfair	1	0.415	0.315	0.1

Table 3-14: Proposed Project Estimated Land Disturbance

Proposed Project Feature	Quantity	Total Approximate Area Disturbed during Construction (Acres)	Temporary Disturbance		Approximate Area Permanently Disturbed (Acres)
			Approximate Area Previously Disturbed (Acres)	Approximate Area to be Restored (Acres)	
Mid-Line Series Capacitors					
Newberry Springs Series Capacitor	1	<u>3.84</u> 1	0.0	<u>0.68</u>	<u>3.21</u> 4
Ludlow Series Capacitor	1	<u>4.03</u>	0.0	<u>1.51</u>	<u>2.53</u> 2
<i>Total Estimate for Mid-Line Series Capacitors</i>		<u>7.78</u> 4	<i>0.0</i>	<u>2.17</u> 9	<u>5.66</u> 5
Transmission					
Guard Structures	<u>9295</u>	7.4	0.0	7.4	0.0
Pull and Tension Sites	<u>19846</u>	<u>58.31</u> 2	0.0	<u>49.65</u> 8.0	<u>1.60</u> 2
Discrepancy Work Areas	14	<u>3.66</u> 1	<u>3.53</u> 6	<u>2.10</u> 1	<u>0.00</u> 4
OPGW/Tower Work	<u>789192</u>	<u>18.42</u> 0.8	<u>20.61</u> 8.4	<u>0.29</u>	0.0
<i>Total Estimated for Transmission</i>		<u>83.19</u> 0.2	<u>22.02</u> 4.1	<u>59.16</u> 5.8	<u>0.22</u> 0
<u>Subtransmission</u>					
<u>Infraction Work Area</u>	<u>1</u>	<u>1.7</u>	<u>0.0</u>	<u>1.7</u>	<u>0.0</u>
<i>Total Estimated for Subtransmission</i>		<u>1.7</u>	<u>0.0</u>	<u>1.7</u>	<u>0.0</u>
Telecommunications					

Proposed Project Feature	Quantity	Total Approximate Area Disturbed during Construction (Acres)	Temporary Disturbance		Approximate Area Permanently Disturbed (Acres)
			Approximate Area Previously Disturbed (Acres)	Approximate Area to be Restored (Acres)	
Fiber Optic Repeaters	3	1.7 <u>0.2</u>	0.0	1.5 <u>0</u>	0.2
Telecommunications Work Areas (Mohave Substation, Mid-Line Series Capacitors, Fiber Optic Repeaters, and Pull and Tension Sites)	389	30.4 <u>32.0</u>	1.1 <u>0.9</u>	29.3 <u>31.1</u>	0.0
<i>Total Estimated for Telecommunications</i>		32.2 <u>32.0</u>	0.9 <u>0.9</u>	30.8 <u>31.1</u>	0.2
Distribution					
Mid-Line Series Capacitor Work Areas (includes Joint Distribution/ Telecommunications Route between Capacitors <u>and Infracion Work Area</u>)	34	20.0 <u>19.9</u>	0.0	20.0 <u>19.9</u>	0.0
Fiber Optic Repeater Work Areas	3	5.7 <u>2.7</u>	0.0	5.7 <u>2.7</u>	0.0
<i>Total Estimated for Distribution</i>		25.7 <u>22.6</u>	0.0	25.7 <u>22.6</u>	0.0
Substations					
Lugo Substation	1	18.5 <u>20.1</u>	18.5 <u>20.1</u>	0.0	0.0 <u>0</u>
Mohave Substation	1	21.5	21.5 <u>21.5</u>	0.0	0.0 <u>0</u>
Eldorado Substation	1	9.5 <u>11.0</u>	9.5 <u>11.0</u>	0.0	0.0 <u>0</u>

Proposed Project Feature	Quantity	Total Approximate Area Disturbed during Construction (Acres)	Temporary Disturbance		Approximate Area Permanently Disturbed (Acres)
			Approximate Area Previously Disturbed (Acres)	Approximate Area to be Restored (Acres)	
<i>Total Estimated for Substations</i>		<u>52.649.5</u>	<u>49.552.6</u>	0.0	<u>0.00.0</u>
Staging Areas					
Staging Areas	17	<u>96.33.5</u>	<u>1920.0</u>	<u>773.35</u>	0.0
Landing Zones	<u>219206</u>	<u>53.671.6</u>	0.1	<u>71.553.5</u>	0.0
Parking Areas	4	<u>17.615.5</u>	<u>11.59.8</u>	<u>6.15.6</u>	0.0
<i>Total Estimated for Staging Areas</i>		<u>182.7165.4</u>	<u>31.628.9</u>	<u>151.1136.5</u>	0.0
Access Roads and/or Spur Roads					
Access Roads and/or Spur Roads	<u>7011</u>	<u>10.81.4</u>	<u>0.50.7</u>	<u>10.20.2</u>	<u>0.10.9</u>
Footpaths	40	<u>1.67</u>	<u>0.0.00</u>	<u>1.67</u>	0.0
<i>Total Area Estimated for Access Roads and/or Spur Roads and Footpaths</i>		<u>12.53.0</u>	<u>0.75</u>	<u>11.91.8</u>	<u>0.91</u>
Total Estimated for Proposed Project		<u>394.0375.4</u>	<u>104.7112.3</u>	<u>280.5256.1</u>	<u>8.87.0</u>

Notes: Work areas at substations are previously disturbed, and do not contribute to the new, permanent disturbance acreage associated with the Proposed Project. Work area acreages are based on preliminary planning and may be adjusted due to final engineering.

Disturbance areas have been rounded to the nearest tenth of an acre; therefore, they may not match the totals presented in Table 3-13: Fiber Optic Repeater Estimated Land Disturbance

Portions of the permanently disturbed areas associated with access or spur roads are located within areas that have been previously disturbed.

Biological Resources

Table 4.4-6: Impacts to Sensitive Natural Communities

Vegetation Alliance	State Ranking ²	Area Temporarily Impacted (Acres)	
		Previously Disturbed	Undisturbed
<i>Achnatherum speciosum</i> Herbaceous Alliance	S2.2	0.0	< 0.1
<i>Cylindropuntia bigelovii</i> Shrubland Alliance	S3	0.0	< 0.1
<i>Ericameria paniculata</i> Shrubland Alliance	S3	0.0	0. 32
<i>Prunus fasciculata</i> – <i>Salazaria mexicana</i> Shrubland Alliance	S3.3	0. 45	1. 64
<i>Suaeda moquinii</i> Shrubland Alliance	S3	0. 14	0. 29
<i>Yucca brevifolia</i> Woodland Alliance	S3.2	0.2	4.75
Total		0.78	7.06

² State Rarity Rankings are defined in Section [Error! Reference source not found.4.4.3-1](#), [Error! Reference source not found.Vegetation Communities](#).

Table 4.4-7: Water Features to be Impacted by the Proposed Project

Feature Type	Temporary Impacts (Acres)		Permanent Impacts (Acres)	
	USACE, SWRCB, and NDEP	CDFW	USACE, SWRCB, and NDEP	CDFW
Linear Water Features	10.4 <u>9.2</u>	11.9 <u>13.3</u>	< 0.1	< 0.1
Wetlands	0.0	0.0	0.0	0.0
Total	9.2 <u>10.4</u>	11.9 <u>13.3</u>	< 0.1	< 0.1