

TABLE OF CONTENTS

5.0 DETAILED DISCUSSION OF SIGNIFICANT IMPACTS 5-1

5.1 APPLICANT PROPOSED MEASURES TO MINIMIZE SIGNIFICANT EFFECTS ... 5-1

5.2 DESCRIPTION OF PROJECT ALTERNATIVES TO MINIMIZE SIGNIFICANT EFFECTS 5-1

 5.2.1 Introduction 5-1

 5.2.2 Methodology 5-1

 5.2.3 Proposed Project Objectives..... 5-2

 5.2.4 Alternatives Considered but Rejected 5-2

5.3 GROWTH-INDUCING IMPACTS 5-8

 5.3.1 Economic or Population Growth..... 5-8

 5.3.2 New Employment..... 5-9

 5.3.3 Extended Access or Public Services 5-9

 5.3.4 Existing Community Services 5-9

 5.3.5 New Development 5-10

 5.3.6 Conclusion..... 5-10

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5.0 DETAILED DISCUSSION OF SIGNIFICANT IMPACTS

In accordance with the PEA Checklist issued by the CPUC on October 7, 2008, this section:

- Identifies the potentially significant impacts that would result from the construction, operation, or maintenance of the Proposed Project;
- Discusses the alternatives that were evaluated in determining the Proposed Project and the justification for the selection of the preferred alternative; and
- Discusses the Proposed Project's potential to induce growth in the area.

5.1 APPLICANT PROPOSED MEASURES TO MINIMIZE SIGNIFICANT EFFECTS

The Proposed Project will not result in significant, unavoidable, adverse effects (refer to Sections 4.1 through 4.16). Therefore, no APMs are proposed.

5.2 DESCRIPTION OF PROJECT ALTERNATIVES TO MINIMIZE SIGNIFICANT EFFECTS

5.2.1 Introduction

The CPUC PEA Checklist directs public utilities to provide a summary of alternatives that would meet most of the objectives of the Proposed Project and an explanation as to why they were not chosen as the Proposed Project. The CPUC PEA Checklist further requires that the discussion of alternatives include alternatives capable of substantially reducing or eliminating any significant environmental effects, even if the alternative(s) substantially impede the attainment of the project objectives, and are more costly.

5.2.2 Methodology

In accordance with the CPUC PEA Checklist, this section considers the following potential alternatives:

- No Project Alternative;
- Wood-to-Wood Replacement Project Alternative;
- Underground Project Alternative; and
- Minor Relocations Alternative.

The Proposed Project involves the replacement of existing wood structures with steel structures for the purpose of increasing the fire safety and reliability of TL 637 in light of the high fire risks in the area. The Proposed Project has been designed to avoid and minimize potential adverse environmental effects (refer to Sections 3.0 and 4.1 through 4.15). Section 4 confirms that there

are no significant impacts associated with the Proposed Project. This section of the PEA considers whether any of the alternatives meet the Proposed Project Objectives and whether any of the alternatives reduce potential adverse impacts.

5.2.3 Proposed Project Objectives

As outlined in Section 2.0, Proposed Project Purpose and Need, the objectives for the Proposed Project are;

1. Increase the Fire Safety and Service Reliability of TL 637, and existing 69kV power line (fundamental objective)
2. Minimize Potential Adverse Environmental Effects
3. Locate Proposed Facilities within Existing Utility Corridors to the Extent Feasible

5.2.4 Alternatives Considered but Rejected

SDG&E evaluated several alternatives based upon feasibility and ability to fulfill the Proposed Project objectives, especially the fundamental objective of increasing fire safety and service reliability (Objective No. 1). Feasible alternatives that meet the fundamental objectives were not found. Each alternative that was considered but rejected is discussed in detail in the following sections.

5.2.4.1 No Project Alternative

CEQA requires consideration of a “No Project Alternative.” The purpose of the No Project Alternative is to enable decision-makers to compare the impacts of approving the Proposed Project against the impacts of not approving the Proposed Project. The No Project Alternative assumes TL 637 would not be replaced in its entirety and poles would be replaced on a pole-by-pole basis in a piecemeal fashion, pursuant to standard maintenance needs and practices.

Attainment of Project Objectives by the No Project Alternative

SDG&E would not be able to meet the Proposed Project’s fundamental objective (Objective No. 1) if the No Project Alternative was selected. Wood power poles, regardless of specifications or age, do not meet the standards for fire prevention as outlined within G.O. 95 and within current SDG&E design standards. Therefore, the No Project Alternative would not meet the Proposed Project Objective of fire hardening TL 637. In addition, the No Project Alternative would entail continued operation and maintenance wood poles in a high fire risk area and four wood poles in a wet meadow. Therefore the environmental impacts associated with baseline environmental conditions would not be reduced, as with the Proposed Project.

Avoidance or Reduction of Potentially Significant Impacts

The Proposed Project does not pose any significant impacts, therefore the No Project Alternative would not reduce or avoid any potentially significant impacts associated with the Proposed Project. As noted above, the No Project Alternative would entail continued operation and maintenance of wood poles in a high fire risk area and four wood poles in a wet meadow. Although the No Project Alternative would not result in the identified impacts (refer to PEA

Sections 4.1 through 4.15), it would not reduce any of the environmental impacts associated with baseline environmental conditions. The Proposed Project would result in increased fire safety in the Proposed Project area, whereas the No Project Alternative would not provide for this increase in fire safety. The No Project Alternative would not bring the entire line into compliance with current SDG&E design standards and G.O. 95, except over time as poles are replaced one-by-one.

Conclusion

The No Project Alternative would not meet the fundamental objective of the Proposed Project (Objective No. 1) because it would not increase fire safety along TL 637. Therefore, SDG&E rejected the No Project Alternative.

5.2.4.2 Wood-to-Wood Replacement Project Alternative

The Wood-to-Wood Replacement Project Alternative would include the replacement of existing TL 637 wood structures with new wood structures. The Wood-to-Wood Replacement Project would match the Proposed Project except that no steel poles would be used.

Attainment of Project Objectives by the Wood-to-Wood Replacement Project Alternative

SDG&E would not be able to meet the Proposed Project's fundamental objective (Objective No. 1) if the Wood-to-Wood Replacement Project Alternative was selected. Wood power line poles, regardless of specifications or age, do not meet the standards for fire prevention as outlined within G.O. 95 and within current SDG&E design standards. New wood poles would not meet key design situations, such as the extreme wind loading case and known local weather conditions. Therefore, the Wood-to-Wood Replacement Project Alternative would not meet the Proposed Project Objectives. In addition, the Wood-to-Wood Replacement Project Alternative would entail continued operation and maintenance of approximately 156 wood poles in a high fire risk area. Therefore the environmental impacts of wildland fire risk associated with baseline environmental conditions would not be reduced, as with the Proposed Project.

Avoidance or Reduction of Potentially Significant Impacts

The Proposed Project does not pose any significant impacts, therefore the Wood-to-Wood Replacement Alternative would not reduce or avoid any potentially significant impacts associated with the Proposed Project. Nonetheless, the Wood-to-Wood Replacement Project Alternative would result in similar construction impacts to those described for the Proposed Project (refer to Sections 4.1 through 4.15) as the construction methods, equipment, and work force would be very similar between the two projects. However, the Wood-to-Wood replacement Project Alternative would have greater potential long term impacts relating to fire risk as compared to the Proposed Project. Therefore, the Wood-to-Wood Alternative would not avoid or reduce potential significant impacts.

Conclusion

The Wood-to-Wood Replacement Project Alternative would not meet the fundamental objective of the Proposed Project (Objective No. 1) because it would not increase fire safety along TL 637. Therefore, the Wood-to-Wood Replacement Project Alternative was rejected by SDG&E.

5.2.4.3 Underground Project Alternative

The Underground Project Alternative would include the replacement of the existing TL 637 overhead power line with a new, completely underground 69kV power line. The Underground Project Alternative would include the removal of the same existing wood structures that will be removed as part of the Proposed Project; however, the Underground Project Alternative would require new underground easement. The Underground Project Alternative would include new underground cable installation along the current TL 637 route, including new splice vaults and cable poles, as needed. Construction of the Underground Project Alternative would result in approximately 17 acres of temporary impact area, approximately 34,200 cubic yards of cut (from excavation of new trench) and would almost assuredly require extensive blasting in order to construct new trenches along the TL 637 alignment.

Attainment of Project Objectives by the Underground Project Alternative

Objective No. 1: Increase Fire Safety and Service Reliability

The Underground Project Alternative would meet Objective No. 1 as it would remove the existing wood poles and overhead power lines that do not meet G.O. 95 and current SDG&E design standards. The new TL 637 would be placed in an underground position, which would effectively increase fire safety and service reliability along TL 637. Important fire safety factors such as fuel type, climate, and wind speed do not have the same effect on underground lines as they do on overhead lines. Therefore, the Underground Project Alternative would meet Objective No. 1.

Objective No. 2: Limit Potential Adverse Environmental Effects

The Underground Project Alternative would limit impacts in a few areas, such as aesthetics, however the process of constructing underground power lines is more intensive than overhead line construction and disturbance areas and work space requirements greatly increase during underground line construction. It is estimated that construction of TL 637 would require approximately 17 acres of disturbance area (not counting staging yards and other temporary construction areas) and approximately 34,200 cubic yards of cut. The Underground Project Alternative would be constructed and operated pursuant to the same laws, regulations, standards, and project design features that limit potential adverse environmental impacts for the Proposed Project (refer to Section 3.8 and Sections 4.1 through 4.15). However, the nature of underground construction (such as the amount of area needed for construction and the amount and nature of equipment used) dictates that impacts associated with underground construction often cannot be limited or avoided. The Underground Project Alternative would reasonably result in greater impacts to almost all of the resource areas analyzed within the PEA (refer to Sections 4.1 through 4.15), especially those with spatially-sensitive resources such as biology, cultural resources, agriculture, soils, and geologic hazards. The more intensive nature of underground construction would also likely result in greater impacts to air quality (due to increased equipment requirements), increased traffic impacts where new underground lines would be located within or perpendicular to existing roadways, water supply (due to increased water needs for dust control relating to the increased disturbance footprint), and increased waste generation due to the excess dirt from the trenches (a large portion of the excavated soil will have to be disposed of offsite as

the duct bank will occupy much of the volume of the trenches). Therefore, the Underground Project Alternative does not meet Objective No. 2.

Objective No. 3: Located Proposed Facilities within Existing Utility Corridors to the Extent Feasible

While detailed engineering for the Underground Project Alternative has not been performed, the route for the Underground Project Alternative would utilize the same route as the Proposed Project, to the greatest extent feasible. Therefore, the Underground Project Alternative could theoretically meet Objective No. 3 to the same extent the Proposed Project would. However, underground construction is subject to different design and constructability limitations than overhead construction, and most often overhead power lines can be installed in many places that underground lines cannot. For example, overhead lines can be designed and constructed such that areas that represent construction challenges can be easily avoided, often by spanning over them. These areas typically include (but are not limited to) the following:

- Areas of extreme variance in topography (such as steep slopes),
- Areas of unsuitable soil (including areas of bedrock),
- Environmentally sensitive areas (including sensitive habitats and cultural resources),
- Water features (including wetlands, streams, and other jurisdictional features), and
- Existing anthropogenic features (such as roads, railroads, buildings, parks, etc.).

Construction of underground lines becomes more complicated where the above features are encountered, and construction becomes either more expensive, leads to greater impacts (where resources are not avoided), requires a longer route (in order to avoid areas where construction cannot occur, or all of the above). For example, with respect to the TL 637 area, existing geologic conditions would most likely dictate that construction of an underground power line would require extensive blasting.

When underground lines are designed, important features that limit the location of the line are taken into account and the overall route length is most often significantly longer than an overhead line that shared the same endpoints would be. The existing TL 637 alignment contains many potential features that would affect the design of an underground power line, including steep slopes, open space preserves, sensitive habitat, unsuitable soils (bedrock), and existing anthropogenic features. Therefore, while an engineered underground route has not been prepared for the TL 637 line, it is likely that any feasible underground TL 637 route would require some location outside of the existing utility corridors to make this alternative feasible and ensure that costs are reasonable and prudent. The Underground Project Alternative would not meet Objective No. 3.

Avoidance or Reduction of Potentially Significant Impacts

The Proposed Project does not pose any significant impacts, therefore the Underground Project Alternative would not reduce or avoid any potentially significant impacts associated with the Proposed Project. Moreover, the Underground Project Alternative would result in greater impacts to almost all of the resource areas analyzed within the PEA (refer to Sections 4.1

through 4.15). As described above, construction of underground facilities involves a more physically intensive construction process that typically requires greater area, more work and equipment hours (including vastly increased requirement for blasting), and a longer construction schedule. In addition, construction of underground lines is subject to a greater amount of construction limitations. These factors dictate that adverse impacts from construction of an underground power line will most often be greater than the impacts when compared to a comparable overhead line.

Re-construction of TL 637 within an underground position would reasonably result in greater impacts than the Proposed Project, especially within those resource areas that contain spatially located elements (such as biological resources, water resources, cultural resources, agricultural and forestry resources, and soils). The more labor and equipment intensive construction could also result in greater impacts associated with the emission of criteria pollutants, traffic congestion (potentially higher number of trips and greater direct impact to existing public roadways), solid waste generation, storm water and waste water generation, and water usage. Therefore, the Underground Project Alternative would result in greater impacts when compared to the Proposed Project.

Conclusion

The Underground Project Alternative would meet the fundamental objective of the Proposed Project (Objective No. 1) because it would increase fire safety and service reliability. However, the Underground Project Alternative would not meet Objective Nos. 2 and 3 to the same extent as the Proposed Project. Furthermore, the Underground Project Alternative would result in greater impacts to resource areas such as biological resources, cultural resources, air quality, water resources, and traffic. Finally, construction of underground power lines on the TL 637 route could increase construction costs by approximately 75 million dollars when compared to overhead construction. The difference in cost between overhead and underground construction is more pronounced where topographical variability and geological constraints are present, as which the TL 637 alignment. For these reasons, SDG&E rejected the Underground Project Alternative.

5.2.4.4 Minor Relocations Alternative

The Minor Relocations Alternative would mirror the Proposed Project except for two areas where, under the Minor Relocations Alternative, the re-constructed TL 637 would be located more closely to the existing TL 637 alignment. Specifically, the Minor Relocation Alternative would include the following two deviations from the Proposed Project:

- The existing distribution line on the north side of Creelman Lane would not be consolidated and underbuilt on the new TL 637 pole line located on the south side of Creelman Lane; and
- The approximately 1,170-foot segment of TL 637 between Pole Nos. P103 and P105 would be reconstructed in its current location, within an existing wet meadow.

Attainment of Project Objectives by the Minor Relocations Alternative

Objective No. 1: Increase Fire Safety and Service Reliability

The Minor Relocations Alternative would meet Objective No. 1 as it would replace the existing wood power poles with new steel poles, and would increase fire safety and service reliability in the same manner as the Proposed Project (refer to Section 2.0, Proposed Project Purpose and Need).

Objective No. 2: Limit Potential Adverse Environmental Effects

The Minor Relocations Alternative would be constructed and operated pursuant to the same laws, regulations, standards, and project design features that limit potential adverse environmental impacts for the Proposed Project (refer to Section 3.8 and Sections 4.1 through 4.15). However, re-construction of the TL 637 power line within its existing location within the wet meadow area would result in greater impacts to the meadow during both construction, operation, and maintenance when compared to the Proposed Project. In addition, the non-consolidation of distribution and TL 637 along Creelman Lane near the Creelman Substation would result in a net increase in the number of poles located along Creelman Lane, when compared to the Proposed Project. Therefore, while the Proposed Project and the Minor Relocations Alternative are very similar, the Minor Relocations Alternative would have greater impacts than the Proposed Project and therefore does not fully meet Objective No. 2.

Objective No. 3: Located Proposed Facilities within Existing Utility Corridors to the Extent Feasible

The Minor Relocations Alternative meets Objective No. 3 in the same manner as the Proposed Project (refer to Section 2.0, Proposed Project Purpose and Need).

Avoidance or Reduction of Potentially Significant Impacts

The Proposed Project does not pose any significant impacts, therefore the Minor Relocations Alternative would not reduce or avoid any potentially significant impacts associated with the Proposed Project. Moreover, as described above, the Minor Relocations Alternative would include the replacement of poles within an existing wet meadow, which would result in greater impacts during construction, operation, and maintenance when compared to the Proposed Project. The Minor Relocations Alternative would also result in a new increase in the number of poles along Creelman Lane, when compared to the Proposed Project. All other impacts would reasonably be considered to be similar; however, the Minor Relocations Alternative would not reduce any potentially significant impacts when compared to the Proposed Project.

Conclusion

While the Minor Relocations Alternative meets Objective Nos. 1 and 3 in the same manner as the Proposed Project, it does not meet Objective 2 as well as the Proposed Project, would result in greater impacts within an existing wet meadow, and would not reduce any impacts associated with the Proposed Project. Therefore, SDG&E rejected the Minor Relocations Alternative.

5.3 GROWTH-INDUCING IMPACTS

CEQA requires a lead agency to review and discuss whether a project would foster economic or population growth, either directly or indirectly, in the surrounding environment. The *CEQA Guidelines* consider a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding area. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent *direct* forms of growth. Other examples of *indirect* forms of growth-inducing projects are the expansion of urban services into previously undeveloped areas or the removal of major obstacles to growth, such as transportation corridors and potable water supply.

Consistent with the *CEQA Guidelines*, the Proposed Project could be considered to have growth-inducing impacts if it would either directly or indirectly foster economic or population growth within the communities of Ramona and Santa Ysabel, or remove existing obstacles to growth in these areas above what would be expected without the Proposed Project. The Proposed Project could also have a growth-inducing impact if it would provide a substantial amount of new employment, create a substantial new burden on existing communities, provide access to previously inaccessible areas or extend public services to previously un-served areas, or cause new development elsewhere (outside of the San Diego County area).

As explained previously, the Proposed Project generally entails the replacement of an existing 69kV wood power line with a new 69kV steel power line. No increase or expansion of capacity is proposed. Although the Proposed Project would improve electrical service reliability in the San Diego County service area, implementation of the Proposed Project would not result in any significant growth-inducing environmental effects.

5.3.1 Economic or Population Growth

5.3.1.1 Background and Anticipated Growth in the Proposed Project Area

As outlined in Section 4.11, Population and Housing, San Diego County is projected to grow to a total population of 3,391,010 by the year 2020, an increase of approximately 286,926 people (or approximately 9.4 percent) as predicted by the Population and Housing Element of the San Diego General Plan Update Environmental Impact Report (August 2011). Population within the community of Ramona is anticipated to grow to 55,024 (from 40,261). This increase represents growth of approximately 36.7 percent above 2010 populations. No population data is available for Santa Ysabel.

5.3.1.2 Growth and the Proposed Project

The Proposed Project would be implemented to continue SDG&E’s long-term fire hardening efforts, thereby improving fire safety and service reliability of an existing electrical system spanning between two existing developed areas. These areas are subject to severe weather conditions—including extreme temperatures, high winds and ice—necessitating electric system improvements. The Proposed Project is not being implemented in advance of growth but, rather, in response to necessary fire-safety and service reliability requirements for existing development in San Diego County. As discussed in Chapter 2.0, Proposed Project Purpose and Need, SDG&E is legally required to adhere to reliability requirements consistent with CPUC General

Orders, CAISO Tariff provisions, NERC/FERC requirements, and SDG&E internal standards. The Proposed Project would not increase housing, bring in new services, or improve the existing infrastructure system (with the exception of increasing reliability of the existing line). Instead, the Proposed Project is designed to ensure consistency of the existing services with reliability requirements and to reduce existing fire risks identified in the Project area.

The Proposed Project involves the replacement of an existing 69kV wood power line with a new 69kV steel power line. The capacity of TL 637 will not increase or expand. The Proposed Project will accommodate existing and projected demand in the service area by improving system reliability and fire hardening TL 637, which will reduce the risk of potential fire hazard impacts under certain atmospheric conditions. If these improvements are not implemented, deterioration of services and an increased likelihood of system instability will result. The Proposed Project will not directly or indirectly foster growth or remove obstacles to economic or population growth in the area.

5.3.2 New Employment

The Proposed Project involves the replacement of an existing 69kV wood power line with a new 69kV steel power line. The capacity of TL 637 will not increase or expand. The Proposed Project would provide short-term construction employment, but no new permanent employment increase. Construction activities are expected to take approximately 9 months under normal conditions. During peak construction times, SDG&E would employ up to approximately 50 workers per day during normal conditions or up to approximately 140 workers during the peak of construction. SDG&E would supplement its workforce as needed during construction from a contractor's pool of experienced personnel. It is anticipated that less than 50 workers would need to reside temporarily at local lodging establishments. The limited, temporary nature of employment for this pool of workers would not result in long-term growth within the Proposed Project area.

Operation and maintenance activities for the Proposed Project would be performed by current SDG&E personnel, and no new jobs would be required. As a result, the Proposed Project would not induce any increase in employment.

5.3.3 Extended Access or Public Services

The Proposed Project involves the replacement of an existing 69kV wood power line with a new 69kV steel power line. The capacity of TL 637 will not increase or expand. The Proposed Project would not provide access to previously inaccessible areas, or extend public services to any currently un-served areas. SDG&E currently provides electric service to the Proposed Project areas and the Proposed Project does not include the expansion of the electric system into areas that currently do not have electric service infrastructure. Therefore, the Proposed Project would not induce growth by extending access or public services (electric service infrastructure) into areas that are currently un-served.

5.3.4 Existing Community Services

The Proposed Project involves the replacement of an existing 69kV wood power line with a new 69kV steel power line. The capacity of TL 637 will not increase or expand. The Proposed

Project is an unmanned utility project, and no new or altered governmental services would be required as a result of project operations. The Proposed Project would not generate a demand for water, wastewater, or solid waste services, and its demand for local- and County-provided services, such as road improvements, law enforcement, and fire protection, will be negligible (see Section 4.11, Population and Housing; 4.12, Public Services; and 4.15, Utilities and Service Systems).

5.3.5 New Development

The Proposed Project involves the replacement of an existing 69kV wood power line with a new 69kV steel power line. The capacity of TL 637 will not increase or expand. The Proposed Project will not promote new development, either in the San Diego County area (including the communities of Ramona and Santa Ysabel) or elsewhere, because it is primarily a response to obviating the possibility of fire risks and improving the reliability of an existing electrical system for present and planned development. The Proposed Project will satisfy SDG&E’s obligation to accommodate the demand that the development market and local governments have projected. The Proposed Project would not directly or indirectly cause or promote new development that would not otherwise be constructed, as approved through local land use approval processes.

5.3.6 Conclusion

The Proposed Project is the replacement of an existing 69kV wood power line with a new 69kV steel power line. The capacity of TL 637 will not increase or expand. The Proposed Project is designed to continue the implementation of SDG&E’s long-term fire hardening efforts to improve the fire safety and service reliability of TL 637. Proposed pole replacements would increase system reliability and reduce risks associated with fire events, consistent with CPUC General Orders, NERC/FERC requirements, CAISO Tariff provisions, and SDG&E internal standards, which dictate requirement standards for corrective actions for variable safety and/or reliability risks (e.g., High Risk Fire Areas). Additional benefits of the Proposed Project would include the reduction of outage potential, improved contamination resistance, reduction of facility maintenance, maximization of equipment life span potential, installation of fiber optic for enhanced digital protective relay systems, and improved avian protection.

The Proposed Project would not create a new customer-level service or source of power that would indirectly allow for an increase in population, housing, or other development because the Proposed Project would not extend electrical service infrastructure into previously un-served areas. The Proposed Project would accommodate existing and planned power demands in SDG&E’s service territory through increasing the electric system reliability and fire hardening TL 637. The Proposed Project would require new employment for construction activities; however, most of the construction force is anticipated to come from the existing local workforce from a pool of existing SDG&E electrical personnel and contractors. Operation and maintenance of the Proposed Project would be slightly less than existing operations and maintenance needs for TL 637 due to the increased reliability of the new power line components included in a typical wood to steel replacement project, the installation of fewer poles along the alignment, and the relocation of poles outside of jurisdictional features. Therefore, the Proposed Project would not induce growth within the Proposed Project area.

