

5.0 Detailed Discussion of Significant Impacts

The analysis contained in this PEA has determined that no potential for significant environmental impacts will result from operation of the Proposed Project. All impacts from operations either have no impact or are less than significant without any required mitigation. Moreover in at least two environmental resource areas, air quality and traffic, permanent improvements to the environment will result from operation of the Proposed Project. The Proposed Project will result in the permanent cessation of three antiquated jet turbine engines that are contributors to a source of NO_x emissions within the South Coast Air Basin. Also, the relocation of the guard house will permanently improve traffic flow in the vicinity of the Storage Field and will reduce future road congestion from vehicles accessing the facility.

Two environmental resource areas were determined to have potentially significant impacts associated with construction of the Proposed Project. For the areas of Air Quality and Biological Resources, specific mitigation measures designed to avoid and/or minimize potentially significant environmental impacts to a less than significant level are proposed. With the implementation of specific mitigation measures the Proposed Project will not result in a significant environmental impact for any environmental resource. In addition, during development of this PEA SoCalGas and SCE have developed a list of APMs that will further reduce environmental impacts and ensure environmental resource protection. Mitigation measures and APMs are presented in this section, along with discussion of growth-inducing impacts and a discussion of GHG emission reductions.

5.1 Proposed Measures to Minimize Environmental Impacts

5.1.1 Mitigation Monitoring Plan

When a public agency adopts a mitigated negative declaration in conjunction with approving a project, the lead agency shall adopt a program for monitoring or reporting on the measures it has imposed to mitigate or avoid significant adverse environmental effects. The reporting or monitoring program shall be designed to ensure compliance during project implementation. Therefore, pursuant to the requirements of the Public Resources Code (PRC) §21081.6, and CEQA Guidelines §15097, SoCalGas will establish a plan to monitor project compliance with those measures proposed or adopted as conditions of approval for the Proposed Project.

SoCalGas and SCE understand the importance of assigning roles and responsibilities to the measures proposed in this PEA to reduce environmental impacts. To assure implementation of these measures, and compliance with all construction requirements, SoCalGas will develop a Construction Mitigation Plan (CMP) that will be implemented by a Compliance Manager (CM) during construction of the Proposed Project.

5.1.2 Mitigation Measures Proposed to Minimize Significant Effects

Mitigation is proposed to reduce potentially significant environmental impacts due to construction of the Proposed Project for Air Quality and Biological Resources. As stated above, no mitigation is required for operation of the Proposed Project. The proposed mitigation measures are described below.

5.1.2.1 Air Quality

Peak daily emissions of nitrogen oxides (NO_x) exceed SCAQMD's construction significance threshold of 100 pounds per day (lbs/day) for NO_x due to the combustion of fuel (primarily diesel) in construction equipment. These emissions were determined to have a potentially significant air quality impact that could be mitigated to below a level of significance by applying existing NO_x allocations (credits) to offset emission increases due to short-term construction exceedances. The SCAQMD has successfully allowed the use of credits to offset temporary emission increase on a year-by-year basis for mitigation pursuant to CEQA.

5.1.2.2 Biological Resources

Construction activities will create temporary disturbances to Native Venturan Coastal Sage Scrub habitat. The native habitat was identified throughout the Proposed Project site including approximately 1.47 acres within the Plant Station, within the Storage Field, approximately 0.12 acres within the proposed SCE Natural Substation location, and approximately 7.44 acres total within the alignment of the proposed SCE 66 kV sub-transmission modification.

Table 5.1-1 shows the proposed mitigation for each of the resource areas found to have potentially significant impacts. No mitigation measures have been identified in this PEA for which SCE is a responsible party.

Table 5.1-1 Summary of Mitigation Measures

Resource Area	Proposed Mitigation Measure Description	Responsible Party
Air Quality (AQ) – Construction		
AQ-MM-01	Prior to construction, the Proponent will mitigate construction emissions of NO _x by purchasing Regional Clean Air Incentives Market (RECLAIM) Trading Credits (RTCs) for every pound of NO _x emissions in excess of the construction threshold of 100 lbs/day. The SCAQMD has accepted the use of RTC's for other projects as mitigation for emission increases due to construction activities. The Proponent will be required to track actual daily emissions during construction according to a mitigation monitoring plan, which will require maintaining records of equipment and vehicle usage.	SoCalGas
Biological Resources (BR) - Construction		
BIO-MM-01	To mitigate potential impacts to the Venturan Coastal Sage Scrub habitat (VSS), a Habitat Restoration Plan will be prepared, detailing plans to replant and/or seed affected areas of VSS. The plan will include planting and seeding palettes and a monitoring and contingency program. The Habitat Restoration Plan will be prepared prior to construction and will include details on the monitoring schedule, duration and specific measures required to ensure success of the restoration effort.	SoCalGas

5.1.3 Summary of Applicant Proposed Measures

The Proposed Project includes various design features, or APMs, that have been proposed by SoCalGas and SCE as measures to be incorporated into the project design to avoid and minimize impacts to various environmental resource areas. APMs include BMPs and applicable permit and regulatory requirements for construction and operation. These measures are described in detail in Chapters 3 and 4 of this PEA. A summary of APMs is presented in Table 5.2-2, along with identification of the responsible parties (SoCalGas, SCE, or both). Whatever the administering utility, SoCalGas is the project Proponent and will contract with a compliance management services firm to assure implementation of the Construction Mitigation Plan.

As noted in the Executive Summary, SCE will be filing an Advice Letter in connection with GO-131-D Exemption F to construct the new and modified electric facilities required to provide electric service to the proposed Central Compressor Station and other facilities proposed within the Storage Field. SCE's Advice Letter will reference the final CEQA document certified by the CPUC as well as the final decision rendered by the CPUC for the Proposed Project. Accordingly, SCE has stated that it will comply with the APMs proposed in this PEA as well as any other appropriate measures and/or conditions relating to SCE facilities required by the CPUC in connection with approval of the Proposed Project. SCE and SoCalGas intend to work closely to ensure for effective APM and mitigation measure coordination and implementation.

Table 5.1-2 Summary of Applicant Proposed Measures

Summary of APMs and Reference		
Resource Area	Applicant Proposed Measure Description	Responsible Party
Aesthetics (A) - Construction		
APM-AE-01 Night Lighting	Construction activities occurring at night will use lighting to protect the safety of the construction workers, but orient the lights to minimize their effect on any nearby sensitive receptors.	SCE
Air Quality (AQ) – Construction		
APM-AQ-01 Equipment Maintenance	Equipment shall be maintained in good condition and engines kept in proper tune as per manufacturers' specifications.	SoCalGas/SCE
APM-AQ-02 Efficient Scheduling	Staff and daily construction activities will be scheduled efficiently to minimize the use of unnecessary/duplicate equipment when possible.	SoCalGas/SCE
APM-AQ-03 Site Prep Minimization	The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.	SoCalGas/SCE
APM-AQ-04 Site Prep Watering	Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.	SoCalGas/SCE
APM-AQ-05 Speed Control	Signs shall be posted on the Plant Station along designated travel routes limiting traffic to 15 miles per hour or less.	SoCalGas
APM-AQ-06 Fugitive Dust	During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site.	SoCalGas/SCE
APM-AQ-7 Sweeping	Paved road surfaces shall use vacuum sweeping and/or water flushing to remove buildup of loose material to control dust emissions from travel on the paved access road (including adjacent public streets impacted by construction activities) and paved parking areas.	SoCalGas

Table 5.1-2 Summary of Applicant Proposed Measures

Summary of APMs and Reference		
Resource Area	Applicant Proposed Measure Description	Responsible Party
Biological Resources (BR) - Construction		
APM-BR-01 Pre-construction Survey	Pre-construction surveys will be conducted for nesting birds and other sensitive biological resources.	SoCalGas/SCE
APM-BR-02 Focused Survey	Focused protocol surveys will be conducted for the gnatcatcher where suitable habitat is within the Proposed Project area.	SoCalGas/SCE
APM-BR-03 Fencing	Exclusionary fencing will be installed around work and laydown areas, where necessary. Brightly colored construction fencing and/or silt fencing will be erected surrounding the work area where it abuts native habitat prior to the start of construction and/or demolition.	SoCalGas/SCE
APM-BR-04 Bio-monitoring	Biological monitoring will be conducted in areas in close proximity to native vegetation to eliminate potential impacts.	SoCalGas/SCE
Cultural Resources (CR) – Construction		
APM-CR-01 Pull and Tension Sites	The Proposed Project has yet to identify pull and tension sites where conductor stringing activities will take place. These locations are approximately 300 feet within an existing SCE easement by 100 feet in size, and require level areas to allow for maneuvering of the equipment. Where possible, these locations will be located on existing level areas and existing roads to minimize the need for grading and cleanup. A supplemental archaeological survey and report will be completed once these locations have been identified.	SCE
APM-CR-02 San Fernando Monitoring	Construction monitoring may be required in the vicinity of the San Fernando Substation due to the proximity of the San Fernando Mission and the possibility for subsurface archaeological materials to be encountered.	SCE
APM-CR-03 Historic Record	A HAER shall be prepared prior to removal of Kern River One Towers used within the existing SCE 66 kV alignment	SCE
APM-CR-04 Unidentified Archeological Findings	If previously unidentified archaeological resources are unearthed during construction activities, construction would be halted in that area and directed away from the discovery until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve or recover the resources.	SoCalGas/SCE

Table 5.1-2 Summary of Applicant Proposed Measures

Summary of APMs and Reference		
Resource Area	Applicant Proposed Measure Description	Responsible Party
APM-CR-05 Public Resources	If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the County Coroner makes the necessary findings as to origin pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5.	SoCalGas/SCE
Geology, Soils, and Seismicity (GS) - Construction		
APM-GS-01 Seismic Engineering	Construction phase procedures and the engineering design and operational procedures for the proposed Central Compressor Station will incorporate measures for fire prevention and detection in order to lower the risk of initiating wildland fires.	SoCalGas
APM-GS-02 Geotechnical Investigation	Construction procedures will be conducted as discussed in the recommendations section of the Preliminary Geotechnical Investigation Report prepared by Globus, 2006, in order to mitigate impacts related to unstable geologic conditions. In addition, a site-specific geotechnical investigation is proposed which will provide information on the potential geological hazards.	SoCalGas
APM-GS-03 UBC Standards	SoCalGas will build all structures and facilities associated with the Proposed Project in compliance with the requirements of the State of California and according to UBC standards for Seismic Risk Zone IV.	SoCalGas
Hazards and Hazardous Materials (HH) – Construction and Operation		
APM-HH-01 FAA Consultation	SCE will consult with the FAA as part of the proposed Project design phase if elevated structures such as TSPs are determined will pose a potential threat to air traffic.	SCE
APM-HH-02 Fire Prevention	Construction phase procedures and the engineering design and operational procedures for the proposed Central Compressor Station will incorporate measures for fire prevention and detection in order to lower the risk of initiating wildland fires.	SoCalGas
APM-HH-03 PPL Prevention	SoCalGas will inspect and maintain the PPL for the purpose of reducing wildfire hazards.	SoCalGas
APM-HH-04 Spill Prevention	Construction procedures will be implemented in order to minimize the potential for hazardous material spills and releases.	SoCalGas/SCE

Table 5.1-2 Summary of Applicant Proposed Measures

Summary of APMs and Reference		
Resource Area	Applicant Proposed Measure Description	Responsible Party
Noise (N) - Construction		
APM-N-01 Construction Hours	All construction activities occurring in association with the Proposed Project, would operate within the allowable construction hours as determined by the applicable local agency and presented earlier in this document where feasible.	SCE
APM-N-02 Noise Control Plan	A noise control plan would be prepared for all pole installation/replacement and substation modifications.	SCE
APM-N-03 Residential Notification	SCE would notify all sensitive receptors within 300 feet of construction of the potential to experience significant noise levels during construction.	SCE
Transportation and Traffic (TT) – Construction and Operation		
APM-TT-01 Commuter Plan	The Proponent will implement a Commuter Plan that includes a designated off-site parking area which has adequate parking capacity for the maximum 150 workers, and a shuttle that will transport worker crews, approximately ten workers per trip, from the parking area to the work site.	SoCalGas
APM-TT-02 Traffic Control Plan	A traffic control plan will be prepared in accordance with the latest version of the Work Area Traffic Control Handbook (WATCH Manual), created by the California Joint Utility Traffic Control Commission, and will be implemented by SoCalGas and SCE where appropriate.	SoCalGas/SCE
Utilities (US) – Construction		
APM-US-01 Material Recycling	Construction of the Proposed Project will result in the generation of various non-hazardous waste materials, including wood, soil, vegetation, and sanitation waste (portable toilets). These materials will either be re-used at the construction site (e.g., clean soil used for backfill) or disposed of at an appropriately licensed off-site facility.	SoCalGas/SCE
APM-US-02 Pole Recycling	Construction activities will generate utility polls and other treated wood waste. This waste will either be reused by SCE, returned to the manufacturer, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a RWQCB-certified municipal landfill.	SCE

Table 5.1-2 Summary of Applicant Proposed Measures

Summary of APMs and Reference		
Resource Area	Applicant Proposed Measure Description	Responsible Party
APM-US-03 Soil Processing	Soils generated during excavation and grading activities which are or are suspected to be contaminated with oil or other hazardous materials; or materials resulting from spill cleanups; will be characterized and disposed of off-site at an appropriately licensed waste facility. There are no known contaminated soils located at any of the Proposed Project construction locations.	SoCalGas/SCE
APM-US-04 Hazardous Materials	All hazardous and non-hazardous wastes generated during operation of the Proposed Project (e.g. waste oil and gas condensates from the proposed Central Compressor Station) will be classified and managed in accordance with federal and state regulations and site-specific permits.	SoCalGas/SCE

5.2 Growth-Inducing Impacts

The Proposed Project has been determined to be less than significant with no mitigation required. The basis of this determination is the following:

- The Proposed Project does not involve the creation of any community facilities or public roads that would provide new access to undeveloped or under-developed areas, or extend public service to an area presently not served by electricity.
- The Proposed Project would not provide a new source of electricity or gas nor would it provide service/utility connections to off-site uses. Implementation of the Proposed Project would not encourage nor facilitate other activities that could significantly affect the environment either individually or cumulatively.
- Construction and operation of the Proposed Project would not affect employment in the Proposed Project area. If contract workers were employed, they would not cause growth in the Proposed Project area due to the short-term and temporary nature of their employment. The Proposed Project would require routine maintenance and emergency repair, but would not require additional full-time personnel than currently exists. In addition, the Proposed Project does not include the construction of any residential uses and therefore would not directly foster population growth. The Proposed Project would therefore not result in directly or indirectly fostering economic or population growth or construction of additional housing in the surrounding area.
- Public services and utilities are already provided in the Proposed Project area and extensions or expansions of those facilities would be limited to service/utility connections at the SoCalGas Storage Field site for proposed on-site uses. No service/utility connections would be provided to other off-site uses and the service/utility connections would be sized to serve only the Proposed Project site. Therefore, implementation of the Proposed Project would not result in the removal of any impediments to growth in the area

5.3 Greenhouse Gas Applicant Proposed Measures

5.3.1 Greenhouse Gas Emissions Analysis

Greenhouse gases (GHGs) that contribute to climate change are carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF₆). The global warming potentials of these pollutants are usually quantified by normalizing their rates to an equivalent CO₂ emission rate (CO₂(eq)).

GHG emissions during construction of the Proposed Project will be generated by construction equipment and motor vehicle fuel combustion. During operation, GHG emissions will be generated by employee commuting to the proposed SCE Natural Substation and the use of electricity by the new motor driven compressors. GHG emissions during the Proposed Project operations will also include leakage of sulfur hexafluoride (SF₆), an insulating gas used in the new circuit breakers that will be installed at the substations. A greenhouse gas analysis and discussion is provided in Section 4.3 Air Quality and detailed emission calculations are provided in Appendix B.1.

Table 5.3-1 presents the construction GHG emissions and the net operational GHG emissions. Net operational emissions include the decrease in GHG emissions from the removal of the existing natural gas jet turbines. As can be seen from the table, the sum of the total construction GHG emissions amortized over 30 years and the operational GHG emissions from the Proposed Project are well below current GHG emission levels, compared on a potential to emit basis.

Table 5.3-1 Greenhouse Gas Emissions Summary

Source	CO₂e
Construction	
Equipment Exhaust (MT)	4,792
Motor Vehicle Exhaust (MT)	1,663
Total Construction Emissions (MT)	6,455
Total Construction Emissions Amortized over 30 years (MT/year)	213
Operation	
SF ₆ Leakage (MT/year)	54
Motor Vehicle Exhaust (MT/year)	4
Compressor Electricity Use (MT/year)	138,709
Potential GHG Emissions from Current Project (MT/year)	138,766
Jet Turbine D14 Operation (MT/year)	(69,789)
Jet Turbine D15 Operation (MT/year)	(69,789)
Jet Turbine D16 Operation (MT/year)	(69,789)
Decrease in GHG due to Removal of Turbines (MT/year)	(209,368)
Net Operational GHG Emissions (MT/year)	(70,920)
Total Project GHG Emissions (MT/year)	(70,825)¹

¹ The Proposed Project would provide a net benefit in greenhouse gas emissions due to removing the existing TDCs from service (based on potential to emit from construction and operation of the Proposed Project). As shown in Table 5.3-1 removing the TDCs from service results in gross reduction of up to 209,368 MT of CO₂e per year, and a net reduction of up to 70,825 MT of CO₂e per year.

5.3.2 Greenhouse Gas Emission Reduction Program

SCE voluntarily reports SF₆ gas emissions and has developed measures to monitor and prevent leakage. SCE currently tracks SF₆ gas leakage on a system-wide basis. SCE SF₆ Gas Management Guidelines require proper documentation and control of SF₆ gas inventories, whether in equipment or in cylinders. Inventories are documented on both a quarterly and a yearly basis. SCE assumes that any SF₆ gas that is purchased and not used to fill new equipment is needed to replace SF₆ gas that has inadvertently leaked from equipment already in service. This allows SCE to track and manage SF₆ gas emissions.

SCE currently voluntarily reports these emissions to the California Climate Action Registry, which was created by the California legislature to help companies track and reduce greenhouse gas emissions.

SCE has taken proactive steps in the effort to minimize greenhouse gas emissions since 1997. In 1997, SCE established an SF₆ Gas Resource Team to address issues pertaining to the environmental impacts of SF₆. The team developed the Gas Management Guidelines that allow for rapid location and repair of equipment leaking SF₆ gas. In addition, in 2001, SCE's parent organization, Edison International, joined the US Environmental Protection Agency's voluntary SF₆ gas management program, committing SCE to join the national effort to minimize emissions of this greenhouse gas. Importantly, SCE's SF₆ emissions in 2006 were 41 percent less than in 1999, while the inventory of equipment containing SF₆ gas actually increased by 27percent during the same time period.

SCE has made a significant investment in not only improving its SF₆ gas management practices but also purchasing state-of-the-art gas handling equipment that minimizes SF₆ leakage. The new equipment has improved sealing designs that virtually eliminate possible sources of leakage. SCE has also addressed SF₆ leakage on older equipment by performing repairs and replacing antiquated equipment through its infrastructure replacement program.

It is expected that the proposed SCE Natural Substation and the other SCE substation modifications required as part of the Proposed Project involving circuit breaker replacement would result in minimal amount of SF₆ leakage as a result of the state-of-the-art equipment and SCE's SF₆ gas management practices. Pursuant to its existing practices, SCE would be reducing potential greenhouse gas impacts due to the SCE substation components of the Proposed Project to the greatest extent practicable.