

# CHAPTER 1

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## INTRODUCTION

Southern California Gas Company (“SCG”) and San Diego Gas and Electric (“SDG&E”) have filed applications with the California Public Utilities Commission (“CPUC” or “Commission”) to request authorization to implement a new tariff<sup>1</sup> service. The new tariff service would allow SCG/SDG&E to install conduit within its active gas pipelines using a proposed technology referred to as “fiber-in-gas” or “FIG.” The new service would establish tariff rates, terms and conditions allowing telecommunications carriers and cable television companies (“Carriers”) to place fiber optic cable in conduit previously installed by SCG/SDG&E in its active gas pipelines under new Schedule No. G-FIG.

If requested to do so by a Carrier, SCG/SDG&E would place conduit into its pipeline using a FIG technology.<sup>2</sup> The Carrier requesting the conduit would then be responsible for installing the fiber optic cable within the conduit and constructing the handholes<sup>3</sup>. Since there is no definitive project that would apply a FIG technology being proposed at this time, this document addresses potential impacts at a general, programmatic level. Consequently, no baseline conditions are presented.

### A. BACKGROUND

With the passing of the Telecommunications Act of 1996, deregulation allowed new companies entry into the long distance and data transmission (broadband) markets, which initiated the demand for more capacity, particularly from fiber optic cable. Although long distance networks have been established, the “last mile” connection or that part of the network that completes the final distance from the main communications line to the premises of the end user is largely nonexistent.

The more traditional approach to install a “last mile” connection requires extensive construction in streets within highly congested metropolitan areas, resulting in subsequent social and environmental impacts such as traffic delays, air pollution from idling traffic, and interference with customer access to local businesses. Municipal and State authorities are also impacted due

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<sup>1</sup> A tariff defined for this project is a scale of rates or charges for an established service.

<sup>2</sup> The application applies to any FIG technology. Although there are several FIG technologies currently available (e.g., from Nortel Network, Alcatel, and GasTec), SCG/SDG&E has been asked by only one company to test, and approve, its technology for potential use in SCG’s active gas distribution pipelines (the “FIG Technology”). This is the only technology reviewed in this IS/MND because information relevant to an environmental review is not known regarding other FIG technologies.

<sup>3</sup> Handholes are approximately four feet long and wide; the depth of the handhole will be approximately three feet. The excavation required to install the handhole may be three to four feet deep.

to the continuing permit and restoration issues associated with construction hazards from paving removal and replacement.

The new service SCG/SDG&E is seeking to provide, by using a FIG technology, proposes a method to mitigate the impacts associated with Carriers constructing new infrastructure in public streets. By avoiding standard trenching methods and utilizing existing utility infrastructure, FIG technology alleviates the concerns local governments have regarding the large number of utility trenches that are required to facilitate the installation of traditional telecommunication infrastructure including the associated public inconvenience and business disruptions. By using existing natural gas infrastructure, the service also potentially reduces the demand for limited available space in the public rights-of-way.

## **B. PROJECT OBJECTIVE**

The purpose of the application is to request Commission authorization to implement a new service allowing any Carriers to place fiber optic cable in conduit installed in SCG/SDG&E's active gas pipelines in compliance with the tariffed rates, terms and conditions under new Schedule No. G-FIG. Under Schedule G-FIG, SCG/SDG&E will recover all out-of-pocket costs for making its pipelines ready for the installation of empty conduit to accommodate fiber optic cable, and for on-going operating and maintenance costs. A variety of terms and conditions, largely based on the Commission's rules for access to poles and conduits of local exchange carriers and major electric utilities, are also incorporated into Schedule G-FIG.

## **C. CEQA LEAD AND RESPONSIBLE AGENCIES**

SCG/SDG&E filed an application with the Commission to implement a new service allowing Carriers to place fiber optic cable in conduit placed in its active gas pipelines at tariffed rates, terms, and conditions under new Rate Schedule No. G-FIG. Although, the Commission issued its rules governing access to the right-of-ways of electric utilities by telecommunications firms in D.98-10-058, the Decision specifically excludes gas utilities from inclusion under the Access ruling. Even though the telecommunications and cable service proposed by SCG/SDG&E is similar to that discussed in D.98-10-058, in numerous ways, it is distinguishable. The proposed service by SCG/SDG&E therefore warrants a full evaluation and Commission decision, thereby resulting in the application from SCG/SDG&E for a ruling allowing its proposed new service.

As the agency responsible for regulation of public utilities in the State of California, the CPUC is the lead agency responsible for approving the proposed project (see CEQA Guidelines §15051). The proposed project would potentially involve numerous jurisdictions and may require permits or approvals from various federal, state, and local agencies for the implementation of FIG technology throughout SCG/SDG&E's service territories. Although highly unlikely, portions of the project may also be subject to compliance with federal environmental regulations, including the federal Endangered Species Act, National Environmental Policy Act, Section 404 of the Clean Water Act, and Section 106 of the National Historic Preservation Act. This environmental

assessment may be used by other agencies and governmental entities responsible for issuing other necessary permits or approvals that may be required, including but not limited to, the following:

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- State Regional Water Quality Control Board
- California Department of Fish and Game
- State Historic Preservation Officer
- Native American Heritage Commission
- California Department of Transportation
- Local counties, cities, and special districts

## **D. CEQA PROCESS**

Pursuant to Section 15050 of the CEQA Guidelines, the CPUC, as lead agency, is responsible for preparing environmental documentation under CEQA. This Initial Study / Mitigated Negative Declaration (IS/MND) provides the public and Responsible and Trustee Agencies with information about the potential effects, both beneficial and adverse, on the local and regional environment. The analyses provided in the IS/MND is conducted on a proposed FIG technology to be used for conduit installation within active gas lines throughout SCG/SDG&E's service territories, but no specific location or action is identified in the project. For this reason, the document is programmatic and conceptual in nature to study the potential effects FIG technology may have on the environment during FIG installation and operation.

The Initial Study evaluates potentially significant impacts associated with implementation of the proposed project and identifies mitigation measures which, when incorporated into the project, would reduce impacts to less than significant. Therefore, this Initial Study has determined that a Mitigation Negative Declaration is the appropriate document for the proposed project under Section 15070 of the CEQA Guidelines.

In accordance with Section 15073 of the CEQA Guidelines, this document is being circulated to local, state and federal agencies and to interested organizations and individuals who may wish to review and comment on the document.

## **E. AREAS OF CONTROVERSY**

### **PIPELINE SAFETY**

In order to implement FIG technology, SCG/SDG&E would be required to access its natural gas pipelines using standard industry procedures to install the empty conduit within live gas pipelines. To access and install FIG technology, SCG/SDG&E would drill holes (or access points) into its pressurized gas pipelines, using a standard hot tap procedure, for installation of empty conduit. The hot tapping procedure would be used to allow access to the pipeline for entry and exit of the conduit, and to circumvent the multiple valves throughout the pipeline system used to isolate particular pipeline segments. SCG/SDG&E will require that a conduit exit and entry be installed in the pipeline at least every 500 feet in the densest areas of its service territory to accommodate

standard emergency procedures without necessitating service disruption. SCG/SDG&E testimony provided with its application demonstrates that tapped access points can be created and sealed safely and that these points will not degrade over time and further increase the possibility of leaks. Additionally, pipelines used for FIG technology are not transmission pipelines, but rather distribution lines, which typically operate at pressures of 60 pounds per square inch (psi) or less. These distribution lines already have “holes carved” into them for taps installed for gas services running to individual consumers along the pipeline alignment.<sup>4</sup>

From an operations and maintenance perspective, the results of demonstrations and tests conducted to date show that the FIG procedure presents risk levels comparable to those associated with current natural gas operations. The tapping process for the installation of the various fittings is a standard procedure performed by appropriately qualified SCG/SDG&E employees and contractors. The same general gas control procedures currently used by SCG/SDG&E employees and contractors would be used for the installation of FIG components.

## PIPELINE OPERATIONS AND CAPACITY

The proposed new form of service, Schedule No. G-FIG, has service implications including potential impacts on operations, existing capacity and future expansion of active gas pipelines. SCG/SDG&E does not anticipate that maintenance required on the conduit or fiber optics installed in active pipelines would necessitate shutting off the respective gas pipeline at any time, which could impose a cost on the ratepayers either through disruption or curtailment of service. SCG/SDG&E would require that FIG technology would not necessitate the interruption of gas service either upon the initial installation or subsequent maintenance.

Additionally, the current flowing capacity would decline as a direct result of conduit installation in existing natural gas pipelines using the proposed tariff service. Only pipelines that operate at 60 psi or less would be eligible for this service. Moreover, any possible impact would be very local in nature, affecting only a particular distribution line. In the case that installation of conduit and fiber optic cable could interfere with pipeline capacity needed for service, SCG/SDG&E has drafted special conditions upon which this potential is taken into account.

Finally, further issues exist in response to when capacity of the distribution system must be expanded due to future gas load demands. To resolve this issue, SCG/SDG&E would not allow installation of fiber optic cable in any pipeline if installation would result in insufficient gas capacity in the line in the next 60 months. However, installation would be allowed if arrangements were made for the carrier to pay for the increase in gas capacity, thereby avoiding that situation. Thus, in the case of capacity constraints more than 60 months in the future, the Carrier may elect to terminate service or relocate its route, such that no additional pipeline construction or trenching would occur.

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<sup>4</sup> In both built-up areas and single-family residential areas, there are already “holes carved” into the distribution mains much more frequently than every 500 feet to connect with services to individual customers.

## **F. ORGANIZATION OF THIS DOCUMENT**

Chapter 1, Introduction: describes SCG/SDG&E’s project background, objective, CEQA lead and process, and areas of controversy.

Chapter 2, Project Description: describes the project including the location, description of the new service and technology, safety and operational issues, and regulatory environment.

Chapter 3, Environmental Setting, Impacts and Mitigation Measures: describes existing conditions (i.e., setting) throughout SCG/SDG&E’s service territories, and analyzes the environmental impacts of the proposed project and recommended mitigation measures. Resource topics are discussed in the order they appear in the CEQA initial study checklist. For each resource topic, impacts are identified as less-than-significant or less-than-significant with mitigation, and mitigation measures are identified. This chapter also contains impact analyses that are appropriate on the programmatic level, rather than a specific area level as the analysis is conducted on a proposed technology to be used in SCG/SDG&E’s service territories; no specific location or action is identified in the project. Resource areas that will not be affected by the proposed project are discussed and eliminated from further analysis.

Chapter 4, Report Preparation, Persons and Organizations Consulted, and References: identifies all individuals involved in preparation of this environmental assessment and references cited throughout the document.