

A. INTRODUCTION/OVERVIEW

This Environmental Impact Report (EIR) has been prepared by the California Public Utilities Commission (CPUC) as the lead agency under the California Environmental Quality Act (CEQA) to inform the public and to meet the needs of local, state, and federal permitting agencies to consider the project proposed by Sacramento Natural Gas Storage, LLC (SNGS, LLC or “the applicant”). This EIR does not make a recommendation regarding the approval or denial of the project; it is purely informational in content and will be used by the CPUC in considering whether or not to approve the Proposed Project or an alternative.

On April 5, 2007, SNGS, LLC submitted an application (Application No. 07-04-013) and a Proponent’s Environmental Assessment (PEA) to the CPUC for the Sacramento Natural Gas Storage (SNGS) Facility (the Proposed Project) (SNGS, LLC 2007a). The purpose of the application is to obtain a Certificate of Public Convenience and Necessity (CPCN) from the CPUC. A supplement to the original application and PEA was submitted on July 16, 2007 (SNGS, LLC 2007b). Additionally, an amendment to the application and PEA was submitted on October 9, 2007 (SNGS, LLC 2007c). This amendment included the addition of the Yolo County Interconnect with Pacific Gas and Electric (PG&E) Line 172 in Yolo County and construction of a metering station in the City of West Sacramento. On September 12, 2008, SNGS, LLC filed a second amendment, which withdrew its proposal to include the Yolo County Interconnect and metering station (SNGS, LLC 2008).

The purpose of this EIR is to evaluate the environmental impacts that would be expected to result from the construction and operation of the proposed SNGS Facility and to provide recommended mitigation measures that, if adopted, would avoid or minimize the significant environmental impacts identified. In accordance with CEQA requirements, this EIR identifies alternatives to the proposed SNGS Facility that could avoid or minimize significant environmental impacts associated with the project as proposed by SNGS, LLC (including the No Project Alternative), and evaluates the environmental impacts associated with these alternatives. Based on this environmental impact assessment, as well as the relative sensitivities of impacts in the study region, this EIR determines the Environmentally Superior Alternative as required by CEQA (see Section E of this EIR).

The content of this EIR reflects input by government officials, agencies, non-governmental organizations, and concerned members of the public during the EIR scoping period following the CPUC’s publication of the Notice of Preparation (NOP) of an EIR (November 16, 2007). During this comment period, several public involvement activities were completed, including public distribution of the NOP and a scoping meeting notice, establishment of an Internet web page, and a public scoping meeting (see Section H of this EIR for additional details).

This section of the EIR is organized as follows:

- Section A.1 briefly describes the SNGS Facility as proposed by SNGS, LLC.
- Section A.2 presents information related to the purpose and need for the Proposed Project.
- Section A.3 describes agency use of the EIR and includes a brief description of the CPUC process for consideration of project approval.
- Section A.4 provides a reader's guide to this EIR, explaining how it is organized.

A.1 Overview of Proposed Project

As proposed by SNGS, LLC, the Proposed Project would use a depleted natural gas reservoir (Florin Gas Field) located within the City of Sacramento and partially within and adjacent to an unincorporated area of the County of Sacramento to store up to 7.5 billion cubic feet (bcf) of natural gas. The Proposed Project includes the existing underground natural gas storage reservoir, a wellhead site, a compressor station, a buried 16-inch interconnection pipeline between the wellhead and compressor site, and a buried 16-inch interconnection pipeline between the compressor site and Sacramento Municipal Utilities District (SMUD) Line 700. Please refer to Section B, Description of Proposed Project, of this EIR for additional details regarding the project.

The Proposed Project would store up to 7.5 bcf of natural gas in the depleted Florin Gas Field reservoir, which is situated approximately 3,800 feet below the ground surface. Natural gas was previously extracted from the Florin Gas Field by Proctor and Gamble, Vendada National, TXO Production Corporation, and Union Oil Company until 1987 when the natural gas supply was depleted. Shortly thereafter, the wells and appurtenance facilities were capped and abandoned in accordance with regulations set forth by the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR). Because there was no additional use for the wells, they were capped and abandoned.

The Florin Gas Field is centered at the corner of Power Inn Road and Wagon Trail Way in the City of Sacramento. Approximately 43% of the field is in the City of Sacramento and 57% is in Sacramento County. The wellhead site, compressor station, and associated interconnecting pipelines would be situated within the City of Sacramento. The wellhead site would be located at the northeast corner of the intersection of Junipero Street and Power Inn Road; the compressor station would be located north of the wellhead site on the historic Sacramento Army Depot that is Depot Park.

A.2 Project Purpose and Need

A.2.1 Background

Natural gas is a gaseous fossil fuel that primarily consists of methane. Natural gas is not a pure product and frequently contains significant quantities of ethane, propane, butane, pentane, carbon dioxide, nitrogen, helium, and hydrogen sulfide. These heavy hydrocarbons and inorganic compounds are removed as condensate when the natural gas is processed. The gas is found in oil fields either dissolved or isolated in natural gas fields, in coal beds (as coalbed methane), or produced by the anaerobic decay of non-fossil organic material, such as in swamps, marshes, and landfills, sewage sludge, and manure.

Once natural gas has been extracted from the ground and processed to remove impurities, it can be transported through a network of intrastate and interstate gas pipelines. The gas can then be transported to homes and businesses through distribution lines. Many private companies no longer purchase natural gas services from only one company. Instead, many California companies arrange to purchase gas directly from producers across the western half of North America and then contract with pipeline owners to transport the gas to the end point in California.

Natural gas pipeline capacity into California has increased over the last 15 years but demand has risen as well, due mostly to population growth and electric power plants switching from oil to natural gas to fuel their boilers. Requirements to reduce air pollutant emissions have contributed to increased demand for natural gas. In 2003, the California Energy Commission, California Power Authority, and the CPUC adopted an Energy Action Plan (EAP) that listed joint goals for California's energy future. For natural gas supply, demand, and infrastructure, the EAP has set goals to ensure reliable, long-term natural gas supplies to California at reasonable rates. In addition, the EAP seeks to provide a natural gas delivery and storage system that is sufficient to meet California's peak demand, encourage the development of additional in-state natural gas storage to enhance reliability and mitigate price volatility, and adopt additional natural gas and electric efficiency programs and standards to reduce the reliance on natural gas for various uses.

PG&E Lines 400/401, which run north and south across the center of the state, define the backbone of the natural gas conveyance system in California. Two PG&E lines and one SMUD pipeline interconnect to lines 400/401 to direct natural gas to the Sacramento region. The Sacramento area is located at the end of the pipeline with the majority of the gas coming from Canada, nearly 1,000 miles away. Disruption of this supply pipeline can create a substantial adverse situation because this gas is used to generate approximately 30% of the electricity in the Sacramento area, as well as providing fuel for many other residential, industrial, and commercial uses. While there is currently adequate pipeline capacity, there is no storage in the Sacramento

area in the event of a disruption in the gas supply. SMUD has identified the need for at least a 30-day backup supply to be stored in the Sacramento area.

The state's two largest natural gas utilities, PG&E and Southern California Gas Company (SCGC), have stored natural gas in various storage facilities around the state as a method of alleviating the effects of a supply shortage. Currently, there are two companies other than PG&E and SCGC that own natural gas storage facilities in California—Lodi Gas Storage, LLC and Wild Goose Storage, Inc. Lodi Gas Storage operates the Lodi Gas Storage Facility northeast of the City of Lodi in San Joaquin County and the Kirby Hills Facility in Solano County. Wild Goose Storage, Inc. began operations at its facility in Butte County in the late 1990s and later expanded its permitted storage and operational capacity in 2002.

In the United States, there are currently three types of underground natural gas storage facilities in use: abandoned salt caverns, water aquifers, and old production fields. However, in California, only old production fields are currently used as storage facilities. An existing, pressurized production field is considered the most desirable by storage facility developers for several reasons, including that the field was previously used for gas production, the geology of the reservoir is generally well-known, and the cap rock covering the permeable basin has been documented as holding natural gas in. Once an underground reservoir has been identified, a geophysical team can determine whether extraction (or injection) is feasible and where wells would have the greatest probability of reaching the deposit. The exact placement of a drill site depends on a variety of factors, including the nature of the potential formation to be drilled, the characteristics of the subsurface geology, and the depth and size of the target deposit.

The Florin Gas Field is a depleted natural gas field that was used for production by three separate entities during an eight-year production period ending in 1987. By 1987, the field had been depleted to a point where more water was being extracted than gas and the amount of gas that was recovered could not justify the production costs. By 1993, the five extraction wells and three non-production wells that had been established above the gas field were abandoned under the supervision of DOGGR.

The gas field is located approximately 3,800 feet below the ground surface and is capped by a shale unit ranging between 150 and 300 feet thick. The field underlies approximately 379 acres of surface land. Land uses contain residential, commercial, industrial, park land, or city-owned parcels. The majority of the residential and other land uses were in existence prior to original development of the Florin Gas Field for natural gas extraction.

A.2.2 Statement of Objectives

CEQA Guidelines (Section 15126.6(a)) requires that project objectives be set forth in an EIR in order to help define alternatives to the Proposed Project that meet most of the basic project objectives. SNGS, LLC lists the following basic objectives of the Proposed Project:

1. Provide strategically located natural gas storage in California.
2. Provide a secure and reliable gas supply for the Sacramento metropolitan area in the event of a disruption of service from the main supply pipeline that services the area.
3. Satisfy SMUD's natural gas storage needs to specifically provide a fuel supply to power their electrical generating plants. The total volumetric capacity available to SMUD under its Storage Service Agreement with SNGS, LLC is 4.0 bcf, which yields approximately a 30-day supply.

A.3 Agency Use of this Document

A.3.1 CPUC Process

CPUC oversees the regulation of investor-owned public utilities, such as SNGS, LLC, pursuant to Article XII of the Constitution of the State of California. CPUC is also the lead state agency for consideration and analysis of SNGS, LLC's proposed SNGS Facility with CEQA. CPUC has directed the preparation of this EIR, which will ultimately be used by the CPUC, in conjunction with other information developed in the CPUC's formal record, to act on SNGS, LLC's application for a CPCN for construction and operation of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR and, if adequate, will certify the document as complying with CEQA. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the application.

CPUC has assigned Administrative Law Judge (ALJ) Richard Smith to oversee the proceeding on the Proposed Project, and Timothy Alan Simon is the Assigned Commissioner for the CPCN application. The ALJ, in accordance with the Scoping Memo, is expected to hold evidentiary hearings on the CPCN application and will issue a proposed decision on the SNGS Facility Project. The ALJ's decision and the evidentiary hearings will cover issues specific to the SNGS Facility, including project need, project cost, and other considerations.

A.3.2 Other Agencies

Construction, operation, and maintenance of the Proposed Project would be in accordance with all applicable federal, state, and local regulatory requirements, which may include, but are not limited to, those outlined in Table A-1.

Table A-1
Permits Required for the Sacramento Natural Gas Storage Facility

Permits	Agency	Jurisdiction/Purpose
Federal Agencies		
Section 404 Nationwide Permit Program, Clean Water Act	U.S. Army Corps of Engineers (ACOE)	Dredge or fill of waters of the United States, including wetlands.
Section 7 consultation (through ACOE's review process)	U.S. Fish and Wildlife Service (USFWS)	Consultation on federally listed species; incidental take authorization (if required).
State Agencies		
Certificate of Public Convenience and Necessity	CPUC	Overall Project approval and CEQA review.
Permit to Operate a Storage Field Permit to Conduct Well Operations Authorization to Inject Produced Waters	California Department of Conservation (CDC), Division of Oil, Gas, and Geothermal Resources	Install, test, and operate injection and extraction wells, such as those proposed at the wellhead site.
National Pollutant Discharge Elimination System (NPDES)– Construction Stormwater Permit	California State Water Resources Control Board (SWRCB)	Stormwater discharges associated with construction activities disturbing more than 1 acre of land.
General Order for Dewatering and Other Low Threat Discharges to Surface Waters	California Regional Water Quality Control Board (RWQCB), Central Valley Region	Discharge hydrostatic test water or trench water.
Section 401 Water Quality Certification (or waiver thereof)	RWQCB	Requests RWQCB's certification that the project is consistent with state water quality standards.
Basin Plan Conditional Waiver– Drilling Mud Pits	RWQCB	Conditional waiver to use drilling mud pits to contain drilling mud during the drilling process.
Section 1601 Streambed Alteration Agreement	California Department of Fish and Game (CDFG)	Alteration of the natural state of any stream.
Encroachment Permit	State Reclamation Board	Any activity that would affect levees or the floodway within/between levees, or the designated floodway if no levees are present, within the Sacramento and San Joaquin rivers and their tributaries.
Local Agencies		
Authority to Construct/Permit to Operate	Sacramento Metropolitan Air Quality Management District	Installing or operating new equipment or processes that may release air pollutants to ensure that rules and regulations are adhered to.
Special Use Permit	City of Sacramento	A Conditional Use Permit used for zoning purposes and to review the location, site development, or conduct of certain land uses.
Franchise Agreement	City of Sacramento	Required by City of Sacramento for construction of the Project on Depot Park property

Table A-1 (Continued)

Permits	Agency	Jurisdiction/Purpose
Roadway Encroachment and Closure Permits	City and County of Sacramento	Construction, operation, and maintenance within roadway rights-of-way (ROWs).
Local Ordinances	City and County of Sacramento	Construction, operation, and maintenance within, under, or over city or county road ROW.

A.4 Reader’s Guide to this EIR

A.4.1 Available for Review

SNGS, LLC’s PEA and other supporting documentation, submitted as part of Application No. A.07-04-013 for the Proposed Project, contains certain information that is incorporated by reference in some sections of this EIR. These documents are available for public review during normal business hours at the following locations:

CPUC Central Files
 505 Van Ness Avenue
 San Francisco, California 94102

City of Sacramento Public Library
 828 I Street
 Sacramento, California 95814

Arthur F. Turner Branch Library
 1212 Merkley Avenue
 West Sacramento, California 95691

Yolo Branch Public Library¹
 37750 Sacramento Street
 Yolo, California 95697

¹ The Notice of Preparation (NOP) was submitted to the Arthur F. Turner Branch Library and the Yolo Branch Public Library because at the time of distribution, components of the project were within these jurisdictions.

A.4.2 EIR Organization

This EIR is organized as follows:

- **Executive Summary.** A summary description of the Proposed Project, its alternatives, their respective environmental impacts, and identification of the environmentally superior alternative.
- **Impact Summary Tables.** A tabulation of the impacts and mitigation measures for the Proposed Project and alternatives.
- **Section A (Introduction/Overview).** A discussion of the background, purpose, and need for the project, briefly describing the proposed SNGS Facility, and outlining the public agency use of the EIR.
- **Section B (Description of Proposed Project).** Detailed description of the proposed SNGS Facility.
- **Section C (Alternatives).** Description of the alternatives evaluation process and alternatives considered but eliminated from further analysis and the rationale, and a description of the alternatives carried forward and analyzed in Section D.
- **Section D (Environmental Analysis).** A comprehensive analysis and assessment of impacts and mitigation measures for the Proposed Project and alternatives, including the No Project Alternative. This section is divided into main sections for each environmental issue area (e.g., Air Quality, Biological Resources) that contain the environmental settings and impacts of the Proposed Project and each alternative. At the end of each issue area analysis, a mitigation monitoring, compliance, and reporting table is provided.
- **Section E (Comparison of Alternatives).** Identification of the CEQA environmentally superior alternative and a discussion of the relative advantages and disadvantages of the Proposed Project and alternatives that were evaluated. Table E-1 in Section E.2 provides a summary of significant unmitigable (Class I) impacts of the Proposed Project versus the alternatives.
- **Section F (Other CEQA Considerations).** A discussion of growth-inducing impacts, irreversible environmental changes, and cumulative impacts.
- **Section G (Mitigation Monitoring and Reporting).** A discussion of the CPUC's mitigation monitoring, compliance, and reporting program requirements.

- **Section H (Public Participation).** A brief description of the public participation program for this EIR.
- **Section I (Report Preparation).** Lists the preparers of this EIR and contacts with public agencies, and a list of acronyms and abbreviations used in preparation of this EIR.

A.5 References

SNGS (Sacramento Natural Gas Storage), LLC. 2007a. *Proponent's Environmental Assessment (PEA) for the Sacramento Natural Gas Storage (SNGS) Project*. Sacramento, California: Sacramento Natural Gas Storage, LLC and EIP Associates, a division of PBS&J. April 5, 2007.

SNGS, LLC. 2007b. *Supplement to the Proponent's Environmental Assessment for the Sacramento Natural Gas Storage Project*. Sacramento, California: Sacramento Natural Gas Storage, LLC and EIP Associates, a division of PBS&J. July 16, 2007.

SNGS, LLC. 2007c. Amendment to the Application by Sacramento Natural Gas Storage, LLC, for a Certificate of Public Convenience and Necessity for Construction and Operation of Natural Gas Storage Facilities and Requests for Related Determinations. Prepared by the Law Office of Alfred F. Jahns. October 9, 2007.

SNGS, LLC. 2008. Second Amendment to the Application by Sacramento Natural Gas Storage, LLC, for a Certificate of Public Convenience and Necessity for Construction and Operation of Natural Gas Storage Facilities and Requests for Related Determinations. Prepared by the Law Office of Alfred F. Jahns. September 12, 2008.

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