1.0 INTRODUCTION

On February 28, 2005, Port Arthur LNG, L.P. ("Port Arthur LNG"), a subsidiary of Sempra Energy LNG (SELNG), and Port Arthur Pipeline, L.P. ("Port Arthur Pipeline"), a subsidiary of Sempra Energy International (hereafter collectively referred to as Sempra), filed applications with the Federal Energy Regulatory Commission (FERC or Commission) under Sections 3(a) and 7(c) of the Natural Gas Act (NGA). The applications were noticed in the Federal Register on March 16, 2005. In Docket CP05-83-000, Sempra, pursuant to Section 3(a) of the NGA, seeks authorization to site, construct, and operate a liquefied natural gas (LNG) receiving terminal, and vaporization and storage facilities. Pursuant to Section 7(c) of the NGA and also as filed in Docket No. CP05-84-000, Sempra seeks a Certificate of Public Convenience and Necessity (Certificate) to construct and operate two associated "send-out" pipelines and related facilities to interconnect the LNG terminal with interstate natural gas pipeline systems. The Port Arthur LNG terminal would be located on the Port Arthur Ship Canal in the Sabine-Neches Waterway (SNWW), south of Port Arthur, Texas, in Jefferson County. One of the proposed send-out pipelines would remain entirely in Jefferson County and end at the existing Natural Gas Pipeline Company of America (NGPL) interstate pipeline south of the terminal, while the other send-out pipeline would extend northeastward through Jefferson and Orange Counties, Texas, and through Cameron, Calcasieu, and Beauregard Parishes, Louisiana, allowing several potential pipeline interconnections, terminating at an existing Transcontinental Gas Pipe Line Corporation (Transco) facility. The project, including the LNG terminal and pipeline components, is referred to as the Port Arthur LNG Project (Project).

Sempra's proposed facilities are designed to initially import, store, and vaporize an average of approximately 1.5 billion cubic feet per day (Bcf/d) of LNG (Phase I), and increase to 3.0 Bcf/d at full site capacity (Phase II), for supply to natural gas markets in the United States (U.S.) via proposed pipelines. To account for peaking capacity, delivery volumes would be 1.8 Bcf/d for Phase I and 3.6 Bcf/d for Phase II.[1] To provide these services, Sempra requests Commission authorization to construct, install, and operate an LNG terminal and natural gas pipeline facilities.

The LNG terminal facilities would include:

Phase I of the Project

- a protected LNG unloading slip with ship maneuvering area (turning basin);

- LNG ship unloading system consisting of two berths each consisting of four 16-inch unloading arms and one 16-inch vapor return arm, mooring and breasting dolphins, gangway tower, firewater monitors, service utilities and associated valves and piping. LNG transfer from the ship to the on-shore storage system would be through two 36-inch-diameter unloading lines, one per berth. Each berth would be sized for an unloading rate of 17,500 cubic meters per hour (m^3/hr); although, only one ship would be unloaded at a time during Phase I. However, if weather conditions or other unforeseen circumstances necessitate concurrent unloading, facility design would accommodate dual unloading;

[1] Vertical bars that appear in the margins of this final EIS mark all substantive changes in this final EIS. These changes were made both in response to agency and public comments on the draft EIS and new information that became available from Sempra after issuance of the draft EIS.

- LNG storage system consisting of a total of three full-containment LNG storage tanks each with a nominal capacity of 160,000 cubic meters (m^3) (1,006,000 barrels). Each tank would be equipped with three can-type, fully submerged LNG in-tank pumps sized for 2,976 gallons per minute (gpm) each;

- boil-off gas (BOG) recovery system consisting of 3 reciprocating BOG compressors each sized for 13,887 pounds per hour (lb/hr), two integrally geared return gas blowers, each sized for 32,228 lb/hr, and one direct-contact recondenser;

- LNG transfer system to transfer LNG from the recondenser to the send-out LNG vaporizers. The transfer system would consist of 8 pot-mounted LNG booster pumps (one being a spare) each sized for 1,964 gpm;

- LNG vaporization system consisting of 6 shell-and-tube LNG vaporizers (one being a spare) each sized for 0.305 Bcf/d. The heat source to the vaporizers would be heated water;

- hot water heating system consisting of four gas-fired hot water heaters each sized for 348 million British thermal units per hour (MMBtu/hr) and 3 centrifugal hot water circulation pumps (one being a spare) each sized for 11,727 gpm;

- emergency vent system; LNG spill containment system; fire water system; fuel gas, nitrogen, instrument/plant air and service water utility systems; various hazard detection, control, and prevention systems;

- utilities, buildings and support facilities;

- facilities for pig[2] launchers and receivers; and

- metering facilities.

Phase II of the Project

- three full-containment LNG storage tanks each with a nominal capacity of 160,000 m^3 (1,006,000 barrels) and each equipped with three can-type fully submerged LNG in-tank pumps sized for 2,976 gpm each;

- one additional BOG compressor sized for 13,887 lb/hr and two additional integrally geared return gas blowers each sized for 32,228 lb/hr;

- eight additional LNG booster pumps (one being a spare) each sized for 1,964 gpm;

- six additional LNG vaporizers (one being a spare) each sized for 0.305 Bcf/d;

- four additional hot water heaters and three additional hot water circulation pumps (one being a spare) each sized for 11,727 gpm;

- buildings and support facilities;

[2] A pig is an internal tool used to clean and dry a pipeline and to inspect a pipeline for potential leaks or damage.

- associated hazard detection, control, and prevention systems, cryogenic piping, electrical, and instrumentation systems; and

- metering facilities.

The pipeline facilities would include:

Phase I of the Project

- an approximately 70-mile-long, 36-inch-diameter natural gas pipeline extending from the LNG terminal terminating at the existing Transco Compressor Station No. 45 located northeast of the terminal site location; and

- mainline valves (MLV's) (located at mileposts [MPs] 19.2, 29.9, 40.3, 50.0, and 58.4); pig launcher (MP 0.0); and pig receiver (MP 69.9).

Phase II of the Project

- an approximately 3-mile-long, 36-inch-diameter pipeline extending from the LNG terminal terminating at an existing NGPL pipeline that passes to the south of the terminal site location; and

- pig launcher (MP 0.0) and pig receiver (MP 2.6).

The FERC staff prepared this final Environmental Impact Statement (EIS) to assess the environmental impact associated with construction of the Port Arthur LNG Project in southeastern Texas and southwestern Louisiana.

In addition to the LNG terminal and natural gas pipeline facilities, the Port Arthur LNG Project would require construction of facilities that do not fall under the Commission's jurisdiction. These facilities include the relocation of a 3.3-mile-long highway and utility corridor (includes gas, oil, and water pipelines; and telephone and electrical power line); and the installation of electrical distribution lines and a new substation to provide power to the terminal.

1.1 PROJECT PURPOSE AND NEED

Sempra states that the purpose of the Project is to:

- allow access to LNG supplies and thus will provide a new, stable source of between 1.5 and 3.0 Bcf/d average capacity; between 1.8 and 3.6 Bcf/d peaking capacity of natural gas to supplement the diminishing supplies while utilizing, to the extent practicable, the existing natural gas pipeline infrastructure within the Gulf of Mexico region of the U.S.; and

- allow natural gas delivery to markets in the Midwestern and Northeastern markets by use of existing interstate natural gas pipeline systems.

It should be noted that the existing pipeline infrastructure in this country was designed to move natural gas from producing areas to consuming areas. Thus, since the Gulf Coast, particularly Texas and Louisiana, has historically produced much of the natural gas used in this country, the pipelines from the Gulf Coast area serve a large market area extending from the Midwest to the Northeast. In particular,

Transco's Zone 3, which starts at Transco's Compressor Station 45 and ends at Transco's Compressor Station 65 (near Greensburg, Louisiana), interconnects with most of the major interstate pipelines that serve the Midwest and Northeast. Delivering gas to Transco's Zone 3 allows for greater market flexibility.

Sempra cited studies and statements from government and private sources to demonstrate an increasing demand for natural gas and a need for additional supplies of natural gas (Department of Energy's Information Administration [EIA] 1999, 2001, 2003; Alan Greenspan, Federal Reserve Board Chairman 2004; North American Electric Reliability Council 2001; Gas Daily 2001; Energy Markets Online 2001; and Fosters Natural Gas Report 2002). Increased imports of LNG have been viewed as a means of meeting the projected shortfalls in natural gas supplies as demand increases. Further, LNG marine transportation is recognized as a viable way of accessing "stranded" natural gas reserves in production areas throughout the world that are inaccessible by conventional pipelines, thereby increasing availability of existing worldwide supplies to the U.S. The Port Arthur LNG terminal would provide a new source of natural gas supply, competing head-to-head with all other production area gas supply, increasing competition in an already competitive supply market, further diversifying the U.S. supply portfolio, and increasing the U.S. ability to meet future natural gas consumption needs.

1.2 PURPOSE AND SCOPE OF THIS STATEMENT

The FERC is the federal agency responsible for authorizing applications to construct and operate onshore LNG import and interstate natural gas transmission facilities. The U.S. Coast Guard (Coast Guard) is the federal agency responsible for determining the suitability of the waterway for LNG marine traffic. The FERC is the lead federal agency for the preparation of this EIS in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] Part 1500-1508), and the FERC regulations implementing NEPA (18 CFR Part 380). The EIS will consider the environmental issues, including our[3] recommended mitigation measures, and will be used as an element of the Commission's review of Sempra's application to determine whether to authorize the Project. Final authorization will be granted only if the FERC finds that the proposed Project is in the public interest. The environmental impact assessment and mitigation development discussed herein are important factors in this final determination.

The U.S. Fish and Wildlife Service (FWS), U.S. Army Corps of Engineers, Galveston District (COE), U.S. Coast Guard (USCG), and National Marine Fisheries Service (NOAA Fisheries) are cooperating agencies for this Project. A cooperating federal agency has jurisdiction by law or special expertise with respect to environmental impacts involved with the proposal and is involved in the NEPA analysis. The Louisiana Department of Wildlife and Fisheries (LADWF) also has assisted us in the preparation of this EIS.

Our principal purposes in preparing this final EIS are to:

- identify and assess potential impacts on the human environment that would result from the implementation of the proposed actions;

- describe and evaluate reasonable alternatives to the proposed actions that would avoid or minimize adverse effects on the human environment;

[3] "We," "us," and "our" refer to the environmental staff of the FERC's Office of Energy Projects.

- identify and recommend specific mitigation measures, as necessary, to minimize environmental impacts; and

- facilitate public involvement in identifying significant environmental impacts.

Our analysis in this EIS focuses on the facilities that are under the FERC's jurisdiction (i.e., the LNG terminal, send-out pipelines, and associated facilities proposed to be constructed by Sempra) as well as the nonjurisdictional facilities that are integrally related to the development of the Project (i.e., the highway/utility corridor relocation and electrical service facilities installation).

The topics addressed in this EIS include geology; soils and sediments; water resources; wetlands; vegetation; wildlife; fish; invertebrates; essential fish habitat (EFH); threatened, endangered, and special status species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and noise; cumulative impacts; reliability and safety; and alternatives. The EIS describes the affected environment as it currently exists, discusses the environmental consequences of the proposed Project, and compares the Project's potential impact to that of alternatives. The EIS also presents our conclusions and recommended mitigation measures.

1.3 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS

As the lead federal agency for the Port Arthur LNG Project, the FERC is required to comply with Section 7 of the Endangered Species Act (ESA) of 1973, the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), Section 106 of the National Historic Preservation Act (NHPA), and Section 307 of the Coastal Zone Management Act of 1972 (CZMA). Each of these statutes has been taken into account in the preparation of this document.

The Coast Guard exercises regulatory authority over LNG facilities that affect the safety and security of port areas and navigable waterways under Executive Order 10173; the Magnuson Act (50 United States Code (USC) section 191); the Ports and Waterways Safety Act of 1972, as amended (33 USC section 1221, et seq.); and the Maritime Transportation Security Act of 2002 (46 USC section 701). The Coast Guard is responsible for matters related to navigation safety, vessel engineering and safety standards, and all matters pertaining to the safety of facilities or equipment located in or adjacent to navigable waters up to the last valve immediately before the receiving tanks. The Coast Guard also has authority for LNG facility security plan review, approval and compliance verification as provided in Title 33 CFR Part 105, and siting as it pertains to the management of vessel traffic in and around the LNG facility.

As required by its regulations, the Coast Guard is responsible for issuing a Letter of Recommendation (LOR) as to the suitability of the waterway for LNG marine traffic. The LOR would be based on the following items:

- density and character of marine traffic;
- locks, bridges, or other manmade obstruction in the waterway; and
- the following factors adjacent to the facility:
  a. Depth of water;
  b. Tidal range;
  c. Protection from high seas;
  d. Natural hazards, including reefs, rocks, and sandbars;
  e. Underwater pipes and cables; and
  f. Distance of berthed vessels from the channel and the width of the channel.

In accordance with Title 33 CFR Part 127.007, each applicant must submit a Letter of Intent (LOI) to the local Captain of the Port to begin the LOR process. On June 14, 2005, the Coast Guard issued a *Navigation and Vessel Inspection Circular – Guidance on Assessing the Suitability of a Waterway for Liquefied Natural Gas (LNG) Marine Traffic* (NVIC). The purpose of this NVIC is to provide Coast Guard Captains of the Port/Federal Maritime Security Coordinators, members of the LNG industry, and port stakeholders with guidance on assessing the suitability of a waterway for LNG marine traffic that takes into account conventional navigation safety/waterway management issues contemplated by the existing LOI/LOR process, but in addition, will also take completely into account maritime security implications. In accordance with this guidance, each LNG project applicant is to submit a Waterway Suitability Assessment (WSA) to the cognizant Captain of the Port. The WSA is to address the transportation of LNG from the LNG tanker's entrance into U.S. territorial waters, through its transit to and from the LNG receiving facility, including operations at the vessel/facility interface. In addition, the WSA should address the navigational safety issues and port security issues introduced by the proposed LNG operations. The NVIC 05-05 also provides specific guidance on the timing and scope of the WSA.

Construction, operation, and maintenance of the Project would be in accordance with all applicable federal, state, county, and local permits and approvals. Applicable permits and approvals for the Project are summarized in **table 1.3-1**. Major permit and approval actions for the Project involving multiple regulatory agencies would include environmental reviews by the FERC for authorization of the Project under Section 3(a) and a Certificate under Section 7(c) of the NGA, the COE for a Section 10/404 Permit, and the Texas General Lands Office and the Louisiana Coastal Management Division of the Department of Environmental Quality for coastal zone management consistency determinations.

Section 7 of the ESA, as amended, states that any project authorized, funded, or conducted by any federal agency (e.g., FERC) should not "...jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined...to be critical..." (16 United States Code (USC) § 1536(a)(2)(1988)). The FERC, or Sempra as a non-federal party, is required to consult with the FWS and NOAA Fisheries to determine whether any federally listed or proposed endangered or threatened species or their designated critical habitat occur in the vicinity of the proposed Project. If, upon review of existing data or data provided by the applicant, the FERC determines that these species or habitats may be affected by the proposed Project, the FERC is required to prepare a biological assessment to identify the nature and extent of adverse impact, and to recommend measures that would avoid the habitat and/or species, or would reduce potential impact to acceptable levels. If, however, the FERC determines that no federally listed, or proposed endangered or threatened species, or their designated critical habitat would be affected by the proposed Project, no further action is necessary under the ESA. See section 4.7 of this EIS for the status of this review.

The MSFCMA, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance EFH for those species regulated under a federal fisheries management plan. The MSFCMA requires federal agencies to consult with NOAA Fisheries on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH (MSFCMA §305(b)(2)). Although absolute criteria have not been established for conducting EFH consultations, NOAA Fisheries recommends consolidating EFH consultations with interagency coordination procedures required by other statutes, such as NEPA, the Fish and Wildlife Coordination Act, or the ESA (50 CFR 600.920(e)), to reduce duplication and improve efficiency. As part of the consultation process, the FERC has prepared an EFH Assessment included in section 4.6.3 of this EIS.

TABLE 1.3-1

Major Permits, Approvals, and Consultations

for the Port Arthur LNG Project

Agency	Permit/Approval/Consultation
FEDERAL	
Federal Energy Regulatory Commission (FERC)	Authorization under sections 3(a) and 7(c) of the Natural Gas Act
Advisory Council on Historic Preservation	Comment on the project and its effect on historic properties under section 106 of the National Historic Preservation Act (NHPA)
U.S. Army Corps of Engineers (COE)	Authorization for activities that will occupy, fill, or grade land in floodplain, streambed, or channel of a stream or other waters of the U.S. under Section 10, Rivers and Harbors Act of 1899
	Authorization to discharge dredged or fill material into waters of the U.S. under Section 404, Clean Water Act (CWA)
U.S. Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries)	Consultation regarding compliance with Section 7 of the Endangered Species Act (ESA); the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA); and the Marine Mammal Protection Act
U.S. Department of the Interior U.S. Fish and Wildlife Service (FWS)	Consultation regarding compliance with Section 7 of the Endangered Species Act; the Migratory Bird Treaty Act; and the Fish and Wildlife Coordination Act
U.S. Environmental Protection Agency (EPA)	Clean Air Act (CAA) permits for the construction of a stationary source of air pollutant emissions and for operation of the source (permitting authority delegated to the Texas Commission on Environmental Quality [TCEQ])
	Section 402, CWA, National Pollutant Discharge Elimination System
	Industrial Storm Water Permit
	Section 404, CWA (veto power for wetland permits issued by the COE)
U.S. Department of Homeland Security U.S. Coast Guard (USCG)	33 CFR 127, Waterfront Facilities Handling Liquefied Natural Gas and Liquefied Hazardous Gas
	Permission to establish Aids to Navigation
U.S. Department of Defense	Consultation as required by Section 311 of the Energy Policy Act of 2005 and Section 3 of the Natural Gas Act
STATE	
Railroad Commission of Texas	Section 401, CWA, Water Quality Certification National Pollution Discharge Elimination System (NPDES) Hydrostatic Discharge Permit
Texas Commission for Environmental Quality (TCEQ)	New Source Review Permit
	Waste Water Permit Temporary Water Use Permit
Texas Parks and Wildlife Department	State-listed threatened and endangered species consultations
Texas General Lands Office	Coastal Zone Management Consistency Determination
Texas Historic Commission, State Historic Preservation Office (SHPO)	Review and comment on undertakings potentially affecting cultural resources (Section 106, NHPA)
Texas Department of Transportation (TxDOT)	Road crossing permits

TABLE 1.3-1

Major Permits, Approvals, and Consultations

for the Port Arthur LNG Project

Agency	Permit/Approval/Consultation
Louisiana Department of Environmental Quality (LDEQ)	Notice of Intent (NOI) to Discharge Storm Water Associated with Construction Activity Notice of Termination of Coverage under Louisiana Pollution Discharge Elimination System (LPDES) General Permit for Storm Water Discharges Associated with Construction Activity LPDES NOI to Discharge Hydrostatic Test Wastewater Water Quality Certification
Louisiana Department of Wildlife and Fisheries (LADWF) Natural Heritage Program	Consultation on threatened or endangered plant and animal species
Louisiana Department of Natural Resources (LADNR) Coastal Management Division	Coastal Use Permit - Coastal Zone Management Consistency Determination (Joint Permit with COE)
Louisiana Department of Culture, Recreation, and Tourism Division of Archaeology & Historic Preservation	Section 106 of the NHPA
Louisiana Department of Transportation	Land crossing permit
LOCAL	
Jefferson County	Building Permits Permit for Construction in Flood Zone
City of Port Arthur	Building Permits
Beauregard Police Jury	Road Crossing Permit
Calcasieu Police Jury	Parish Road Crossing Construction Permit
Cameron Police Jury	Project Development Permit

Section 106 of the NHPA requires the FERC to take into account the effects of its undertakings on properties listed in, or eligible for listing in, the National Register of Historic Places (NRHP), including prehistoric or historic sites, districts, buildings, structures, objects, or properties of traditional religious or cultural importance to Native American Tribes, and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking. The FERC has requested that Sempra, as a non-federal party, assist in meeting the FERC's obligation under Section 106 by preparing the necessary information and analyses as required by the ACHP regulations in 36 CFR 800. See section 4.10 of this EIS for the status of this review.

The CZMA calls for the "effective management, beneficial use, protection, and development" of the nation's coastal zone and promotes active state involvement in achieving those goals. As a means to reach those goals, the CZMA requires participating states to develop management programs that demonstrate how these states will meet their obligations and responsibilities in managing their coastal areas. In the State of Louisiana, the Louisiana Department of Natural Resources (LADNR) is the agency responsible for administering its Coastal Zone Management Program (CZMP). In the state of Texas, the Texas General Land Office (TGLO) is responsible for administering its CZMP. Because Section 307 of the CZMA requires federal agency activities to be consistent to the maximum extent practicable with the

enforceable policies of a management program, the FERC has requested that Sempra seek a determination of consistency with Louisiana's and Texas' CZMP. See section 4.8.5 of this EIS for additional discussion of the Louisiana and Texas CZMP.

The USCG exercises regulatory authority over LNG facilities that affect the safety and security of port areas and navigable waterways under Executive Order 10173, the Magnuson Act (50 USC § 191), the Ports and Waterways Safety Act of 1972, as amended (33 USC § 1221, et seq.), and the Maritime Transportation Security Act of 2002 (46 USC Section 701). The USCG is responsible for matters related to navigation safety, vessel engineering and safety standards, and all matters pertaining to the safety of facilities or equipment located in or adjacent to navigable waters up to the last valve immediately before the receiving tanks. The USCG also has authority for LNG facility security plan review, approval, and compliance verification as provided in Title 33 CFR Part 105, and siting as it pertains to the management of vessel traffic in and around the LNG facility. See section 4.13.5 of this EIS for additional discussion on marine safety.

We have consulted with the U.S. Department of Defense (DOD) as required by the Energy Policy Act of 2005 and Section 3 of the Natural Gas Act to determine if there are affect on training or activities on any military installations from the Project. No comments or concerns were received from any branch of the military of a military installation in reply to the FERC's scoping notice issued in December 15, 2004. Further, no comments were received from any DoD branch in response to the FERC's DEIS issued on August 26, 2005.

In addition, in letters dated January 6, 2006, to the Army, Navy and Air Force at the Pentagon, we requested any information on affects to military installations. Since no affects have been identified, we conclude that there is no affect on military installations from this project, and therefore no concurrence from the Secretary of Defense is required under Energy Policy Act of 2005. We will notify the DoD of this conclusion in writing to confirm it.

Aside from the FERC, other federal agencies have responsibilities for issuing permits or approvals to comply with various federal laws and regulations. For example, the COE would issue permits under the CWA and the Rivers and Harbors Act; the EPA has regulatory authority under the CWA and the CAA; and the USCG has responsibilities relating to LNG water front facilities under 33 CFR 127. Several Texas and Louisiana state agencies have delegated responsibilities under the CZMA, CWA, and CAA. Major permits, approvals, and consultations required for the Port Arthur LNG Project are identified in **table 1.3-1**.

The FERC encourages cooperation between applicants and state and local authorities, but this does not mean that state and local agencies, through application of state and local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by the FERC. Any state or local permits issued with respect to jurisdictional facilities must be consistent with the conditions of any authorization issued by the FERC.[4]

1.4 PUBLIC REVIEW AND COMMENT

On May 6, 2004, Sempra filed a request with the FERC to implement the Commission's Pre-filing Process for the Port Arthur LNG Project. At that time, Sempra was in the preliminary design stage of the project and no formal application had been filed with the FERC. On May 24, 2004, the FERC granted Sempra's request and established a pre-filing (PF) docket number (PF04-11-000) to place information

[4] See, e.g., Schneidewind v. ANR Pipeline Co., 485 U.S. 293 (1988); National Fuel Gas supply v. Public Service Commission, 984 F.2d 571 (2d Cir. 1990); and Iroquois Gas Transmission System, L.P., et al., 52 FERC 61,091 (1990) and 59 FERC 61,094 (1992).

filed by Sempra and related documents issued by the FERC into the public record. The purpose of the Commission's Pre-filing Process is to encourage the early involvement of interested stakeholders, facilitate interagency cooperation, and identify and resolve issues before an application is filed with the FERC.

On July 20 and September 14, 2004, Sempra sponsored open houses in Port Arthur, Texas, and Vinton, Louisiana, respectively. The purpose of the open houses was to inform agencies and the general public about LNG and the proposed Project and to provide them an opportunity to ask questions and express their concerns. The FERC participated in these open houses and provided information on the joint environmental review process. In addition, the FERC staff conducted a site visit of the proposed LNG terminal and various portions of the proposed pipeline routes on June 22 and July 21, 2004.

The FERC formally introduced the Commission's Pre-filing Process to various Project stakeholders by issuing a notice titled *Notice of Pre-Filing Process for the Planned Port Arthur LNG Terminal and Pipeline Project and Request for Comments on Environmental Issues*. This PF notice, issued on July 20, 2004, was sent to 393 interested parties including federal, state, and local officials; agency representatives; conservation organizations; Native American tribes; local libraries and newspapers; landowners within 0.5 mile of the proposed LNG terminal; and property owners along the proposed pipeline routes. Following this, on December 15, 2004, the FERC issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Port Arthur LNG Project and Request for Comments on Environmental Issues and Notice of Public Scoping Meetings and Site Visit* (NOI). The NOI was sent to 401 interested parties including federal, state, and local officials; agency representatives; conservation organizations; local libraries and newspapers; residents within 0.5 mile of the proposed LNG terminal; and property owners along the proposed pipeline routes. Publication of the NOI opened the time period for written comments on the proposed Project. In total, 15 comment letters were received.

On January 11, 2005, in Vinton, Louisiana, and on January 12, 2005, in Port Arthur, Texas, the FERC conducted public scoping meetings to provide an opportunity for the public to learn more about the proposed Project and to provide comments on environmental issues to be addressed in the EIS. On the days of the meetings, FERC staff conducted site visits of the LNG terminal site and pipeline routes. The site visits were open to the public. Thirty-one people commented at the scoping meetings and their comments were recorded both in support of and against the project. Transcripts of these scoping meetings are part of the public record for the Port Arthur LNG Project.

In addition to the public notice and scoping process discussed above, we have conducted agency consultations and participated in interagency meetings and site visits on June 22, August 18, September 14 and 15, and October 26 and 27, 2004. Agencies participating in the meetings and site visits included the FWS, COE, NOAA Fisheries, TGLO, Texas Parks and Wildlife Department (TPWD), LADNR, LDEQ, EPA, USCG, Texas Railroad Commission, Texas Coastal Management, TCEQ, LADWF, and Louisiana Department of Economic Development. Issues discussed included potential environmental impacts to wetlands and threatened and endangered species and their habitats, mitigation, dredging, agency coordination for the review of the multiple LNG projects in Texas and Louisiana, the approach to the alternatives and cumulative impact analyses in the EIS, specific concerns of the agencies that should be addressed in the EIS, and other issues within their respective jurisdictions.

On September 2, 2005, the FERC issued the draft EIS for the Project and filed it with the EPA. A formal notice was published in the Federal Register announcing that the draft EIS was available and had been mailed to individuals and organizations on the EIS mailing list prepared for the Project. The public was allowed approximately 105 days (or until December 16, 2005) to comment on the draft EIS in the form of written comments. The comment period was extended beyond the normal 45 day period as a result

damage in the area due to Hurricane Rita.. However, due to the hurricane damage in the area, we were not able to hold public comment meetings on the draft EIS.

We received comment letters from 5 federal agencies, 7 state agencies or government officials, 5 local government officials, 78 groups or individuals, and the applicant. Comments on the draft EIS received by December 16, 2005, and the FERC's staff's responses to those comments are provided in appendix N of this document.

Issues identified during the public comment process are summarized in **table 1.4-1**.

TABLE 1.4-1

Issues Identified During the Public Scoping Process

Issue	General Comments	EIS Section Where Comments are Addressed
General	Support for the Project. Analyze cumulative impacts on all resources. Concerns regarding construction methods and engineering. Concern for public safety in the event of upset conditions and terrorist attacks. Concerns regarding contractor experience and availability. Support of the relocation of State Highway (SH) 87. Concern about impacts on the proposed facilities related to seismic activity and tsunamis.	4.12; 2.5; 4.13; **appendix A**; 4.1.3
Alternatives	Consider less environmentally damaging alternatives, offshore alternatives, routing and site alternatives. Alternatives should consider reducing wetland and EFH impacts. Consider alternative pipeline routes from the north end of Sabine Lake to the Intracoastal Waterway.	3.0; 3.5.4; 3.5.3.2; 4.4; 4.6.3
Water Use and Quality	Reduce and mitigate for turbidity. Consider horizontal directional drill (HDD) techniques, rather than open-cutting waterbodies. Use Best Management Practices (BMPs) to control runoff. Avoid surface and groundwater contamination. Include rates, locations, and subsequent water quality of stormwater run-off. Support use of a closed-loop vaporization system. What will be done with the heated water from the closed-loop system?	**appendix F**; 4.3.3.1; 4.3.1; 4.6.2; 4.11; **appendix D**
Wetlands	Need for pre- and post-construction surveys to assure proper restoration of wetland contours. Concern for marsh habitats and their restoration. Concern about quantifying habitat conversion; particularly for emergent marsh converted to open water. Concerns about permanent impacts from compaction, oxidation, and soil weathering in intercoastal marshes. Concern regarding loss of wetlands and marshes due to dredging and dredge spoil placement.	4.4; **appendix G**
Vegetation	Avoid impacts to emergent marsh vegetation, forested wetlands, and old growth long-leaf pines. Conduct habitat surveys to identify and evaluate the functions and values of habitats for all alternatives. Avoid impacts to unique or sensitive vegetation communities on the Temple-Inland Crown Point Distinctive Site by re-routing the pipeline.	4.4; 4.5; 4.5.2; 3.5.3.5
Fish and Wildlife	Avoid impacts to migratory birds, shorebirds, nesting birds, bird breeding seasons, and rookeries. Concerns regarding lighting and power line effects on birds. Avoid oyster beds in Sabine Lake. Habitat loss and fragmentation concerns. Use the HDD method to avoid impacts to perennial waterbodies and associated riparian areas, forested wetlands, and their inhabitants.	4.6.1; 4.6.2; **appendix I**

TABLE 1.4-1

Issues Identified During the Public Scoping Process

Issue	General Comments	EIS Section Where Comments are Addressed
Threatened, Endangered, and Special-Status Species	Avoid impacts to red-cockaded woodpecker, bald eagle, West Indian manatee, piping plover, brown pelican, gulf sturgeon and the green, hawksbill, Kemp's Ridley, leatherback, and loggerhead sea turtles and their habitats.	4.7
Land Use, Recreation, and Visual Resources	Avoid impacts to the Sabine National Wildlife Refuge, Texas Point National Wildlife Refuge, J. D. Murphree Wildlife Management Area (WMA), and coastal wetlands protection and restoration project areas. Concerns regarding increased ship traffic-induced beach erosion. Dredged material placement areas should be identified for the life of the project and should be used in a beneficial manner to create fish habitat.	4.8.3; 3.4
Socioeconomics	Support of the Project for increased jobs, tax revenues, and subsequent economic boost to local towns and counties. Concern about facilities and ship traffic being too close to homes on Pleasure Island.	4.9; 4.8.2
Mitigation	Compensate for all permanent impacts at a ratio of 2:1. A post-construction monitoring and mitigation plan should be part of the permit. Potential need for imported fill to restore marshlands. The EIS should have a completed mitigation plan that adequately compensates for the cumulative loss of coastal habitat associated with the Project.	4.4; **appendix G**; 5.0

This final EIS was mailed to the agencies, individuals, and organizations on the mailing list included in appendix B, and was submitted to EPA for a formal notice of availability. In accordance with CEQ's regulations implementing NEPA, no agency decision on a proposed action may be made until 30 days after the EPA publishes a notice of availability of the final EIS. However, the CEQ regulations provide for an exception to this rule when an agency decision is subject to a formal internal process that allows other agencies or the public to make their views known. In such cases, the agency decision may be made at the same time as the notice of the final EIS is published, allowing both periods to run concurrently. Should the Commission authorize the proposed Project, it would be subject to a 30-day rehearing period. Therefore, the Commission could issue its decision concurrently with the EPA's notice of availability.

1.5 NONJURISDICTIONAL FACILITIES

Under Section 3(a) of the NGA, the FERC considers all relevant factors bearing on the siting of LNG import facilities. Under Section 7(c) of the NGA, the FERC is required to consider, as part of a decision to certificate jurisdictional facilities, all facilities that are directly related to the Project where there is sufficient federal control and responsibility to warrant environmental analysis as part of this jurisdictional proceeding. The jurisdictional facilities for the Port Arthur LNG Project include the LNG terminal facilities and the natural gas pipelines. These are discussed in detail in this EIS.

Occasionally, proposed projects have associated facilities that do not come under the jurisdiction of the Commission. Sempra initially identified two potential nonjurisdictional facilities related to the proposed Project: a highway/utility/pipeline corridor relocation (relocation project) and a power line to supply electricity for the LNG terminal. We have addressed these facilities (described below), to the degree to which we have information for them, in **appendix A** of this EIS.

Highway/Utility/Pipeline Corridor Relocation

LNG ship access to the LNG terminal site would require the relocation of approximately 3.3 miles of SH 87 and the existing parallel pipeline and utility corridors. The total length of the relocated highway would be 3.7 miles. Sempra would relocate the highway on property that is already owned by Sempra and no land owned or leased by parties other than Sempra would be affected. The narrow portion of land between SH 87 and the Port Arthur Ship Canal is experiencing severe erosion due to wave action in the waterway and the TxDOT is in support of this relocation as it would relieve the agency of annual expenditures of $2 to 3 million to prevent or minimize the effects of the erosion on the highway. Sempra is proposing to donate to the State of Texas sufficient funding, property, and services to provide for land acquisition and exchange right-of-way, utility relocation, environmental assessments, schematic design, engineering plans, specifications and estimates, construction, and construction phase services to facilitate this relocation project. TxDOT would be responsible for design approval and applications for the required permits, which would be in accordance with TxDOT guidelines. TxDOT would oversee and inspect all work performed and determine engineering inspection and testing requirements to ensure that the construction is accomplished in accordance with the approved plans and specifications. Upon completion and acceptance of the relocation project, TxDOT would assume the maintenance responsibilities for the roadway.

In addition to the relocation of SH 87, there are five hydrocarbon pipelines within a corridor paralleling SH 87, which also would have to be relocated or abandoned. Approximately 3 miles of these pipelines would be re-routed to the west of the LNG terminal along a right-of-way east of the re-located SH 87. The pipelines to be relocated or abandoned are listed below:

- 6-inch-diameter Buckeye Corporation gas pipeline to be abandoned;
- 10-inch-diameter Centana Corporation gas pipeline to be relocated;
- 12-inch-diameter Centana Corporation gas pipeline to be relocated;
- 24-inch-diameter Manta Ray Corporation oil pipeline to be relocated; and
- 8-inch-diameter ONEOK gas pipeline to be abandoned or relocated.

Telephone, electrical power distribution, and water lines also are located within the existing SH 87 utility corridor. This utility corridor also would be relocated concurrently with SH 87. The proposed relocation route is shown in **appendix A**.

Electrical Service

The power for the Project would be supplied by Entergy who would install interconnecting transmission line consisting of two 230-kilovolt (kV) electrical transmission lines and a new substation. The substation, called the Entergy Substation, would be located on a 500-foot by 450-foot (approximately 5.2-acre) site on the west side of, and within, the approximate 198-acre LNG terminal site. The locations of these facilities, as have been described to us, are shown in **appendix A**. Entergy is proposing to supply the redundant power supply by connecting the LNG terminal to the Sabine Station substation and Point Acres Bulk substation, the two closest substations. An independent, dedicated 230-kV line would feed the LNG terminal from each location. These power supply lines would be sited in the relocated corridor and would be permitted under a separate Certificate of Convenience and Necessity (CCN) application through the Texas Public Utilities Commission (PUC). As lead agency, the PUC would address the environmental impacts of the two lines proposed to supply the LNG terminal under that application. It is anticipated that the environmental and policy consideration issues associated with the electrical transmission lines and substation would be thoroughly addressed during the transmission line permitting

process. Since the environmental review of the nonjurisdictional transmission lines is not complete at this time, **we recommend that:**

- **Sempra file the comments of the Texas SHPO and FWS on Entergy's planned electric transmission lines with the Secretary prior to its construction. Sempra should defer obtaining service from the planned electric transmission lines until the comments have been filed with the Secretary.**