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Before the
Senate Energy, Utilities and Communications Committee

Informational Hearing: Liquefied Natural Gas

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State Capitol

Chairwoman Escutia and Members of the Committee. The California Public Utilities Commission ("CPUC") appreciates the opportunity to provide information on Liquefied Natural Gas ("LNG"). The CPUC has been very involved in LNG matters as the state agency with safety expertise concerning LNG and with regulatory authority over intrastate LNG facilities in California, as a member of the current LNG interagency working group, and as a representative of the State of California before the Federal Energy Regulatory Commission ("FERC").

I. BACKGROUND

The CPUC has authority under state law over the safety and siting of all public utilities (except the siting of thermal power plants) in the State of California. *See San Diego Gas & Elec. Co. v. Sup. Ct.* (1996) 13 Cal. 4th 893, 923-25. The CPUC has been protecting the health and safety of the people of the State of California from hazards of intrastate natural gas or electric facilities in California for more than 80 years.[1]

The CPUC is also certificated by the United States Department of Transportation ("DOT") to enforce natural gas pipeline safety standards, because the CPUC meets the prerequisites of being the state agency, which regulates natural gas companies in California, has adopted the federal standards and has qualified safety experts on its staff. S*ee* Natural Gas Pipeline Safety Act ("NGPSA"), 49 U.S.C. §§ 60104(c), 60105. The Utilities Safety Branch in the CPUC's Consumer Protection and Safety Division ("CPSD") has 18 safety engineers, who inspect natural gas and electric facilities in California. The DOT provides matching funds (up to 50%) to the CPUC for the natural gas inspections, and the DOT provides free training to the CPUC staff.

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[1] *See, e.g., Postal Telegraph-Cable Co. v. R.R. Comm'n* (1925) 197 Cal. 426 (CPUC, previously known as the California Railroad Commission, upheld on requiring relocation of hazardous transmission lines.)

II. LNG FACILITIES PROPOSED OR CONSTRUCTED IN THE PAST

LNG is 600 times the concentration of natural gas so that it may be efficiently transported on ships and/or stored in storage tanks. Natural gas is liquefied into LNG for storage and transportation purposes and then regasified back into natural gas. In the 1970s, four LNG import terminals on the East Coast were constructed. Throughout the United States, there are also hundreds of smaller LNG facilities used to liquefy natural gas for LNG vehicles, or, more commonly, to store LNG and then regasify it at peak times. San Diego Gas & Electric Company ("SDG&E") used this smaller type of LNG facility for meeting certain peak needs from 1968 through 1985, subject to the CPUC's regulation.

The Liquefied Natural Gas Terminal Act of 1977 had required LNG import terminals in California to be sited away from population centers. Consistent with that state statute, the CPUC had opposed the FERC's certification of an LNG terminal proposed in the 1970s for the City of Oxnard, California. Ultimately, at the end of the 1970s, both the CPUC and the FERC issued certificates of public convenience and necessity for an LNG import terminal in a remote area at Point Conception, California. However, the LNG import terminal was never constructed, due to market forces (i.e., natural gas prices had decreased such that it was no longer economic to construct an LNG terminal.) Subsequently, the California Legislature repealed the Act, because LNG terminals were not cost-effective at that time and the Act was considered obsolete.

III. ADDITIONAL LNG IMPORT TERMINALS ARE NOW NECESSARY

In the Fall of 2003, it became apparent that North American production of natural gas would not continue to be sufficient to meet the increasing demand in North America, driven largely by the construction of new natural gas-fired power plants. This has resulted in significant increases in the price of natural gas. Even before Hurricane Katrina, the price of natural gas had more than doubled throughout North America during the past three years. The CPUC, therefore, recognizes the need for LNG import terminals along the West Coast to bring additional supplies of natural gas to help meet natural gas demand and put downward pressure on prices.

At the present time, there are five existing, operational LNG import terminals around North America, including an offshore LNG terminal in the Gulf of Mexico. In addition to those five LNG terminals, as of October 24, 2005, the FERC has posted on its website 60 additional proposed LNG terminals around North America, which have been either approved by or proposed to the FERC, the United States Coast Guard ("Coast Guard") and Federal Maritime Administration ("MARAD"), or Canadian or Mexican authorities, or which are potential sites in North America identified by project sponsors. Experts have predicted that the market will ultimately support between only 8 to 12 of these 60 proposed LNG import terminals.

Of the 60 proposed LNG import terminals identified on the FERC website, 13 proposed LNG import terminals would be on the West Coast, and, if approved and constructed, could directly or indirectly provide natural gas supplies to California. The breakdown for these 13 proposals listed on the FERC website are: four around Southern California (onshore or offshore); four in Oregon; two in British Columbia, Canada; two in Baja California, Mexico; and one on the west coast of Mexico in Sonora (which El Paso Natural Gas Company has proposed to link to its interstate pipeline that serves California.) Most of these proposals will never be constructed, so only the safest ones should be built.

One of these proposed LNG import terminals is Sound Energy Solutions' ("SES") proposed LNG import terminal at the Port of Long Beach, California. In October, 2003, the CPUC informed SES that it would need to apply for certificate authority from the CPUC, and CPUC recommended to the FERC that both agencies could concurrently review this matter, like we did in the 1970s. In January, 2004, SES applied with the FERC for authority under section 3 of the Natural Gas Act, 15 U.S.C. § 717b, but SES refused to apply for authority from the CPUC. This led to the FERC issuing orders asserting exclusive jurisdiction over the SES project and purporting to preempt the CPUC's jurisdiction, as well as the CPUC's challenge to the FERC's orders in the United States Court of Appeals for the Ninth Circuit.

When Congress passed the Energy Policy Act of 2005 ("EPAct of 2005"), Public Law 109-58, Congress included certain provisions involving LNG import terminals. Section 311 of the EPAct of 2005 substantially amended sections 1(b) and section 3 of the Natural Gas Act, 15 U.S.C. §§ 717(b) and 717b, which were the key provisions of the Natural Gas Act, upon which the CPUC relied in its appeal of the FERC's orders. The new language confers jurisdiction upon the FERC over LNG import terminals. Due to these changes in sections 1(b) and 3 of the Natural Gas Act, the CPUC agreed to dismissal of its petition for review in the Ninth Circuit, because the new law has mooted the issues.

The CPUC still retains authority over the intrastate natural gas pipelines in California, which would receive natural gas from proposed LNG terminals, and the CPUC would have jurisdiction over intrastate LNG facilities in California, other than the facilities associated with LNG import terminals, if any were proposed in the future. For example, if there were a proposal for an LNG storage facility, like SDG&E utilized until 1985, the CPUC would have siting and regulatory authority over that proposal.

Section 311(c)(2) of the EPAct of 2005 recognizes that LNG terminal sponsors must still receive permits from certain state agencies, which have siting authority under: (1) the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 *et seq*.); (2) the Clean Air Act (42 U.S.C. §§ 7401, *et seq*.); and (3) the Federal Water Pollution Control Act (33 U.S.C. §§1251, *et seq.*). Thus, certain state or regional agencies, such as the California Coastal Commission, still have siting authority over LNG import terminals.

In the LNG provisions of the EPAct of 2005, there is no eminent domain authority granted to the FERC or the LNG project sponsor. Most of the California coast and the submerged lands in State waters (i.e., up to 3 miles offshore) are State lands. *See Colberg, Inc. v. State of California* (1967) 67 Cal.2d 408. Therefore, in California, it would be rare to find a site where an LNG project sponsor owns the land. A state agency or a political subdivision of the State, such as the Port of Long Beach, would have to voluntarily agree to lease the State lands for an LNG terminal in California.

In order to lease the State lands to an LNG project sponsor, a state agency or political subdivision of the State must follow state law, such as the California Environmental Quality Act ("CEQA"), Cal. Pub. Res. Code §§ 21000, *et seq*., and the California Coastal Act, Cal. Pub. Res. Code §§ 30000, *et seq*. The political subdivision of the State cannot act contrary to the will of the State. *See Lockyer v. City and County of San Francisco* (2004) 33 Cal. 4th 1055, 1069. Therefore, CEQA, the California Coastal Act and other state law requirements involving the use of State lands (e.g., public trust obligations) would still apply to proposed LNG terminals using State lands in the State of California.

IV. THE SAFETY RISKS OF LNG IMPORT TERMINALS AND THE CPUC'S EXPERTISE TO ADDRESS SUCH RISKS

LNG and hydrocarbons extracted from LNG (e.g., propane) are potentially very dangerous. For example, in 1944, there was an accident in Cleveland where LNG spilled from storage tanks, formed into vapor clouds that spread over one quarter square mile, ignited, and resulted in fires and explosions that killed 130 people. The LNG accident in Cleveland, as well as other LNG accidents, provided the basis for why, in the Liquefied Natural Gas Terminal Act of 1977, the California Legislature had prohibited the siting or construction of LNG import terminals in population centers.

Similarly, in the Pipeline Safety Act of 1979, Congress required the DOT to issue LNG safety standards, including LNG siting standards, which would take into account factors, such as the population and demographic characteristics of the proposed location, seismic problems and the need to encourage remote siting. *See* 49 U.S.C. § 60103(a). The DOT has issued such standards (*see* 49 CFR Part 193), and as part of its certification, the CPUC has adopted these standards, as well.

In the approximately 25 years since the California Legislature and Congress enacted these statutes, there have been significant developments in technology and scientific knowledge about the safety risks posed by LNG facilities. Nevertheless, the safety risks associated with placing LNG import terminals in densely populated areas still exist, and the wisdom in the California Legislature's prohibition in the Liquefied Natural Gas Terminal Act of 1977 against siting LNG terminals in population centers would be just as valid today.

Indeed, on January 19, 2004, there was an accident caused by a vapor cloud at an LNG export facility in Algeria, where 27 people were killed and 56 people

were injured. This facility had been modernized in 1999. However, accidents like this can happen, and our scientific and technological advances have not been able to eliminate human error. In addition, the United States currently faces much more significant threats of terrorist attacks than it did in the 1970s. Moreover, in California, depending upon the site, there may be significant seismic problems. Therefore, there is no question that there are safety risks associated with siting of LNG import terminals in or near a densely populated area.

In section 311(d) of the EPAct of 2005, when Congress required the FERC to address the State and local safety considerations concerning the proposed site for an LNG terminal, Congress listed six factors as State and local safety considerations. These factors mirror the six factors for the location of LNG facilities in the Pipeline Safety Act of 1979, codified at 49 U.S.C. § 60103(a), including the need to encourage remote siting.

Fortunately, since the 1970s, there have also been technological advances such that it is now feasible to have offshore LNG import terminals, which are in remote areas sufficiently far away from land and population centers. One of the existing LNG import terminals in the United States is offshore in the Gulf of Mexico. As a result of an amendment in 2002 to the Deepwater Ports Act, 33 U.S.C. §§ 1501, *et seq*., the U.S. Coast Guard and MARAD have siting authority over LNG facilities in federal waters (i.e., more than 3 miles offshore). *See* 33 U.S.C. §§ 1503 –1508. Pursuant to the Deepwater Ports Act, 33 U.S.C. § 1508(b), the Governor of State adjacent to proposed LNG terminal can veto it or have conditions imposed upon its authorization. Therefore, LNG terminals in federal waters can and should be considered, because they would provide safer alternatives to onshore LNG import terminals in or near densely populated areas.

The CPUC's CPSD has safety engineers, who have been trained by the DOT on its LNG safety standards and by various other LNG safety experts. In order to evaluate the safety of an LNG terminal at the Port of Long Beach, the CPUC's CPSD entered into a contract with Dr. Jerry Havens, who has been an LNG safety expert for more than 30 years. His conclusion is that an LNG terminal at SES's proposed site at the Port of Long Beach would pose a risk to the safety of the approximately 130,000 people, who work or live within three miles of the site. Within these three miles are residential neighborhoods in the Cities of Long Beach and Los Angeles, as well as downtown Long Beach. His recommendation is that LNG import terminals should not be sited or constructed within three miles of densely populated areas. His testimony is based, in part, upon a Sandia National Laboratories Report (December 2004), which calculates that a terrorist attack on an LNG ship could release LNG, resulting in a pool fire that could cause second degree burns to people within 1 mile of the pool fire in just 30 seconds. People further than a mile away could receive burns if exposed to the heat for longer than 30 seconds.

Dr. Havens has also determined that the risks posed to the densely populated Long Beach/Los Angeles area by SES's project would not be risks

threatening people onshore by BHP Billiton's or Crystal Energy's proposed LNG projects, which are the two pending proposals for LNG import terminals more than 10 miles offshore in federal waters. Thus, there are much safer alternatives to provide needed LNG supplies than siting LNG terminals in California's cities.

The CPUC's staff actively participates in the LNG interagency working group, where we have provided information involving LNG safety issues and other natural gas issues to the federal, state and local agencies, which are members of the group. The CPUC and other agencies also provided substantial input to the California Energy Commission ("CEC") when it prepared the State's advisory report concerning State and local safety considerations involving SES's proposed LNG import terminal at the Port of Long Beach.

The CPUC has submitted Dr. Havens' expert witness testimony and report to the Port of Long Beach and to the FERC, where we have asked for evidentiary hearings on SES's proposal. The CPUC will also submit this testimony and report to the California Coastal Commission. In addition, the CPUC has furnished Dr. Havens' expert witness testimony and report to this Committee's staff in response to the staff's request.

The CPUC intends to continue to have its experts examine the safety issues involving proposed LNG import terminals for the State of California, and to promote the safety interests of the people of the State of California before other agencies and courts when it is necessary. In addition, if LNG import terminals are built onshore in California (as opposed to in federal waters offshore of California), it is anticipated that CPUC safety inspectors will help enforce the federal safety requirements for LNG facilities. Section 311(d) of the EPAct of 2005 explicitly provides that the State commission may conduct safety inspections in conformance with federal LNG safety regulations.

The CPUC is also charged with the responsibility of ensuring that there are adequate natural gas supplies and infrastructure to meet California's natural gas and electric needs at just and reasonable rates. Consequently, the CPUC recognizes the need to construct LNG terminals along the West Coast, including California. Both the need for LNG import terminals, and the need to protect the safety of the people in the State of California from the hazards associated with LNG import terminals, can be accommodated by relying upon remote siting in California (either offshore or onshore). Nothing in the EPAct of 2005 suggests that a State must lease its land, so that it can be used for an LNG import terminal in a densely populated area that threatens the safety of its citizens. To the contrary, Congress reaffirmed in section 311(d) of the EPAct of 2005 the six factors for LNG siting safety considerations from the Pipeline Safety Act of 1979 (*see* 49 U.S.C. § 60103(a)), including the "need to encourage remote siting."