

Public Awareness and Concerns About LNG

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Like many other types of energy and energy systems, the use of LNG as a method of transporting natural gas from distant sources has become a subject of public attention and controversy in recent years.

Thus, the range and diversity of views held by the people who will be affected by the use of LNG are important to Congress in its consideration of possible new legislation, oversight activities, and budget appropriations to Federal agencies involved in the regulation of LNG projects and facilities.

In order to provide Congress with information on these views, OTA conducted a public participation program in connection with this assessment of the transportation of liquefied natural gas. The program consisted of a day-long workshop in Washington, D. C., a questionnaire/interview survey in relevant coastal areas, and a review of this draft report by members of the public.

These activities were designed to obtain information about the opinions and beliefs of the public in four areas:

- the benefits and risks which various groups associated with the development of an LNG system or alternatives to that development;
- concerns about marine transportation of liquefied natural gas and the siting of LNG facilities;
- the adequacy of the decisionmaking and regulatory processes relating to LNG; and
- the need for Government action in the form of legislation, policymaking, or research.

More than 100 persons from gas utilities and related industries and financial institutions, organized labor, State and local agencies, and public interest groups were directly involved in the public participation program. Through them, OTA was able to identify the key issues which have been or will be raised in the public debate and which should be analyzed for possible Federal action. Through them, OTA was also able to appreciate the wide range of views on these issues and incorporate those views into its report to Congress.

Much of the discussion of LNG during the public participation program centered on specific LNG projects and the concerns which various interest groups have had about those projects. Public involvement with LNG projects has been limited to date, but has included participation in formal hearings before the FPC, legal action, and dissemination of information about the issues involved.¹

Although individual opinions on issues varied, it was obvious from the public participation program that there are three major issues in the consideration of LNG systems:

- safety of LNG ships and terminals;
- criteria for siting of *LNG* facilities; and
- public participation in decisionmaking processes.

¹Leonard E. Bassil, "Cove Point Liquefied Natural Gas Terminal, Calvert County, Md.," National Academy of Sciences National Research Board, Maritime Transportation Research (unpublished), and Andrew J. Van Horn and Richard Wilson, *Liquefied Natural Gas Safety Issues, Public Concerns, and Decision Making*. Cambridge: Harvard University, 1976.

The varied views of the public who worked with OTA in this effort are particularly reflected in the section, “Critical Review of Components of the LNG System.” Their specific suggestions for action to help resolve major problems are itemized in the next section of this chapter. However, the public also expressed strong interest in several broader issues which are beyond the scope of this report. These broader questions which have not been answered to the satisfaction of many include:

- Is there a need for LNG in the first place?
- Will the development of LNG systems divert major amounts of capital and

human resources away from the development of alternative types of energy?

- Will the development of LNG systems produce unwarranted confidence in traditional energy supplies and prevent a major commitment to energy conservation?

On the other end of that concern, many asked about the impact of *not* developing LNG systems. They argued that not proceeding could result in “an unprecedented economic disaster” by creating shortages of energy in critical industries, decreasing possible contributions to the gross national product, and increasing unemployment.

Actions Desired By GAS UTILITY COMPANIES

Gas company respondents included representatives of the American Gas Association, Algonquin Gas of Massachusetts, Columbia LNG Corp., Southern California Gas, Central Power and Light Company in Texas, and United Gas Pipeline Company of Texas.

The respondents suggested the following:

- “ The Federal Government should streamline the regulatory process by declaring policies on LNG pricing, LNG facility siting, and other important aspects of LNG development.
- One Federal agency should coordinate all LNG procedures in order to accelerate the regulatory process and eliminate jurisdictional overlaps among the Federal Power Commission, the Office of Pipeline Safety Operations, and the U.S. Coast Guard.
- There should be Federal preemption on environmental and siting issues.
- Ceilings on LNG imports should be avoided, but the security of supply and

the possibility of overdependence on a single source should be addressed on a project-by-project basis.

- The State and local approval processes should be consolidated where feasible.
- The Federal Government should establish clear safety criteria on a generic, rather than case-by-case, basis.
- The Federal Power Commission should approve a formula to allow companies to pass on escalations in the cost of foreign gas or transportation without new hearings.
- The Federal Power Commission should allow rolled-in pricing.
- The Federal Government should maintain existing financial incentives now available through the Maritime Administration and the Export-Import Bank.
- Congress should adopt legislation providing for adequate insurance coverage by means of a fund supported by LNG sales.

- The Federal Government should undertake additional studies of LNG safety, especially vapor cloud studies and risk analysis, with large-scale LNG spill tests to be carried out by the Coast Guard and the Energy Research and Development Agency.

**Actions Desired By
ORGANIZED LABOR GROUPS**

Respondents from organized labor groups included representatives of the AFL-CIO and other groups.

The respondents suggested the following:

- Congress should adopt legislation to correct deficiencies in the LNG regulatory process and eliminate counterproductive time lapses and delays.
- Ratesetting policies should not discourage the utilization of imported LNG.
- Congress should adopt legislation to mandate the use of U.S. flag ships with U.S. personnel for LNG transportation in order to increase national security and ensure full compliance with construction and safety standards.
- There should be a prompt decision on the gas transportation system to be used for North Slope Alaskan gas, including provision for a western delivery system.
- Federal preemption should be used if necessary to arrive at early decisions on LNG issues, but there should also be maximum State, regional, and local involvement in decisions.
- All Coast Guard procedures should be reviewed to determine the adequacy of ship traffic control and inspection of LNG tankers.
- The Federal Government should require agencies involved in LNG approval processes to act on permit applications within a given time frame.
- Additional studies should be undertaken to determine the capability of Coast Guard units assigned to aid LNG tankers and to assess the adequacy of equipment in use.
- Studies should also be undertaken to determine what industries are compatible and could be located near LNG terminals.

**Actions Desired By
STATE AND LOCAL OFFICIALS**

Respondents from State and local offices included representatives of the Public Utilities Commission staffs in New Jersey, California, Rhode Island, and Massachusetts; representatives of the cities of Providence, R. I., Oxnard and Los Angeles, Calif.; and representatives of the New York Department of Environment-

tal Conservation, and the Georgia Coastal Zone Management Office,

The respondents suggested the following:

- The Federal Government, with the involvement of local interest groups and governments, should establish pro-

cedures for the selection of suitable locations for future LNG facilities.

- The Federal Government should, where practical, eliminate overlapping jurisdiction with respect to siting, construction and monitoring of LNG facilities.
- “ The Federal Government should expedite and consolidate the various permit processes required for approval of an LNG facility.
- The Federal Government should promulgate and enforce safety regulations and establish standards for transportation and storage of LNG.

“ Congress should adopt legislation which will ensure that the costs of shipping LNG by oceangoing vessels are just and reasonable.

- c Additional studies should be made of LNG spills on water, underground storage of LNG, and greater use of imported LNG as pipeline gas.
- s The Federal Government should also promote research into alternative fuels which might be more abundant and possibly less costly; research into conservation methods; and studies of the possibility of curtailing the sales activities of gas distributors.

Actions Desired By RELATED INDUSTRIES

Respondents from businesses and industries related to the LNG industry included representatives of shipbuilding companies and associations, gas pipeline companies, safety consulting firms, marine engineering firms, the industrial construction industry and financial institutions.

The respondents suggested the following:

- c The Federal Government should resolve the issue of who is in charge of siting and safety matters and should establish a “one stop” permit process.
- “ Clearly defined policies and fair regulations should be adopted to accelerate the regulatory process.
- “ The Federal, State and municipal permit processes should be coordinated.
- The Federal Government should assist industry in meeting energy demands and in determining the safest, most viable means to transport, store, and distribute LNG in interstate commerce.
- “ The Federal Government should ensure a smooth transition to the new Department of Energy.

- The Federal Government should develop a pricing structure which will ensure adequacy of supply.
- The Federal Government should adopt a clear policy on incremental and rolled-in pricing.
- Additional study should be made of pipeline vs. LNG systems of transportation, including study of the political, security of supply, safety, and environmental issues.
- Studies should also be made which would improve LNG vapor dispersion analysis and allow refinement of vapor dispersion models to take into consideration local topography and manmade obstructions.
- Studies should be undertaken to identify the problems and solutions associated with transportation and distribution of LNG to and from inland baseload and peak shaving plants.*

*Note: one respondent said further studies were not desirable because they would only cause additional delays in development of LNG.

Actions Desired By PUBLIC INTEREST GROUPS

Respondents from public interest groups included representatives of California-based national groups such as the Natural Resources Defense Council and the Sierra Club; Washington-based national groups such as the Environmental Policy Center; and local citizens groups in Maryland, California, Rhode Island, New Jersey, New York, Massachusetts, and Texas.

The respondents suggested the following:

- c Congress should adopt legislation to restrict LNG storage tanks and terminals to isolated areas.*
- The Federal Government should take a more active planning role in LNG terminal siting and should establish broad Federal policy on siting in advance of individual project decisions.
- Federal siting policy should be developed through public hearings on generic safety and siting considerations.
- “ The Federal Government, in conjunction with State and local groups, should identify and review available sites which could be potential LNG terminal locations without waiting for specific applications.
- The Federal Government should act to ensure rational land-use planning by the States through the Coastal Zone Management Act or other means.
- “ The Federal Government should determine whether and how much LNG is

& Note. Respondents varied in siting criteria.

Some said LNG terminals and tanker routes should be at least 1 mile from populated areas. Other suggested distances ranging up to 25 miles from populated areas. Several said terminals should be restricted to offshore sites. One said terminals should be located in already industrialized areas with small populations.

needed and limit LNG imports so that they do not become a major part of the U.S. gas supply.

- The Federal regulatory procedure should be improved to allow for timely selection of sites, if they are needed, with maximum public participation in the process.
- The Federal Power Commission should mandate incremental pricing for LNG, and keep a close watch on price and supply.
- Federal supervision of daily operations of LNG facilities should be increased.
- Existing LNG tanks that do not meet new siting criteria should be phased out.
- The Federal Government should set mandatory conservation standards and determine uses of natural gas in order to diminish reliance on natural gas.
- The Federal Power Commission should develop procedures for ensuring effective public participation, including adequate notice of pending proceedings and payment of attorney and witness fees for intervenors.
- The environmental impact statement process should be simplified and should include consideration of safety issues.
- The Coast Guard should strictly control the movement of LNG tankers and other ship traffic on the LNG tanker route.
- There should be intensive training of all personnel involved in the inspection and regulation of LNG tankers and facilities.
- Transportation of LNG by truck should be controlled with procedures similar to those which regulate the movement of LNG tankers.
- The Federal Government should mandate development of evacuation plans by

local jurisdictions near LNG facilities and ensure that there will be adequate local firefighting capability.

“ Congress should adopt legislation to ensure that there will be adequate liability insurance which defines coverage and responsibility for accidents.

s There should be additional studies of large marine spills of LNG, vapor dispersion, and other safety questions, including the consequences of large terminal accidents, the effect of such accidents on homes and industries supplied by the terminal, the time required to rebuild a terminal, alternate energy sources available after an accident, size of the area en-

dangered, methods of combating LNG fires, and methods of protecting citizens in endangered areas.

- Studies should also be made of LNG import projections under all regulatory circumstances (i.e., with and without import restrictions, with rolled-in pricing, with incremental pricing, etc.) and the economic consequences of LNG embargoes by producing nations.
- Studies should be made to find appropriate alternatives to the development of LNG systems.
- Siting of LNG facilities in areas which have prime ecological or aesthetic values should be avoided.