Public Attitudes Toward Natural Gas and Interstate Pipelines

Prepared for The INGAA Foundation, Inc., by:
The Roper Organization, Inc.
205 East 42nd Street
New York, N.Y. 10017
(212) 599-0700

F-9106

PUBLIC ATTITUDES
TOWARD NATURAL GAS
AND INTERSTATE PIPELINES

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by
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Overview

Among the major sources of energy used in the United States, natural gas enjoys an outstanding image. Compared to oil, coal, and nuclear power, it is considered to be the safest to use, the best for the environment, the most acceptable for widespread use, the most economical, and responsible for the fewest deaths over the last several years. Moreover, the image of natural gas has been improving in most of these areas since 1985. Natural gas is also one of the major natural resources that Americans believe we are least likely to run out of.

Among those who use natural gas in their home, more than three-quarters are very satisified with it, and an additional 1 in 5 are somewhat satisfied; merely 2% are *un*satisfied. Even among those who do not currently use natural gas, a plurality say they would like to have natural gas service at home.

As a fuel, natural gas has a far better image in every respect than oil. But when it comes to delivery systems for oil and natural gas, the public draws little distinction between the two. Both are considered safe for the health and safety of the public and for the environment. And as a result, there is little opposition to having either a natural gas or oil pipeline "in the neighborhood," and even less "in the area."

Of course, it remains possible that in some communities even a small number of vocal opponents could potentially impede the construction of long-distance, interstate natural gas pipelines. Yet this survey shows that in most communities, opposition groups would not be expected to enjoy a substantial following.

Indeed, Americans overwhelmingly approve of natural gas—particularly when compared to the alternatives, all of which are considered more harmful than natural gas to the environment and to public safety.

On the basis of this survey, it would appear that natural gas enjoys a long and bright future in the United States.

Natural Gas: The Favorite On Nearly All Counts

Relative to the other major sources of energy used in the United States today, natural gas is immensely popular. When the public is asked to judge natural gas, oil, coal, and nuclear power according to nine specific criteria, natural gas comes in first on five of six positive criteria, earns a tie on the sixth positive one, and finishes last or next to last on the three negative criteria.

What's more, in most of the positive areas, natural gas holds a huge lead over its nearest competitor. For example, 64% say that natural gas is the most acceptable of the four fuels for widespread use, 54 percentage points ahead of nuclear power, which comes in second. The gaps between natural gas and the nearest competitor are also substantial when it comes to which is best for the environment (46 points), safest to use (48 points), economical for consumers (47 points), and responsible for the fewest deaths (18 points).

Even the tie earned by natural gas with nuclear for being the fuel we are *least* likely to run out of seems impressive. After all, there is no theoretical limit to the amount of nuclear power that can be generated, as there is for natural gas. Possibly, the public sees a political limit—rather than a scientific one—to the use of nuclear power.

In terms of the negative perceptions, very few people blame natural gas for being responsible for the most deaths over the past several years (9%); for being potentially the most dangerous to human life (5%); or for being least acceptable for widespread use (5%).

Several follow-up questions in the survey sought to achieve more precise rankings for the four fuels in the areas of human and environmental safety. Recognizing that the public can have great difficulty when trying to rank four answers based on a single question, the results may be instructive nonetheless.

The survey found that while natural gas is the standout for being safest to use and best for the environment, the "battle" for second place is won far less decisively by oil. Meanwhile, coal is considered to have the worst impact on the environment, whereas nuclear is named worst for public safety.

As yet another way of looking at these data, for all 75% of the respondents who gave a complete slate of valid rankings for public safety—and for the 65% who did so for the environment—an average ranking was caluculated for each fuel. For this purpose, the following scores were assigned: "1" meaning best for either the environment or public safety, "2" meaning second best, "3" meaning third best, and "4" meaning the worst. With this method, we obtained the following results, ranked from best to worst:

Best for environment	
Natural gas	1.4
Oil	2.6
Nuclear	2.9
Coal	3.1

Safest to use	
Natural gas	1.5
Oil	2.4
Coal	2.6
Nuclear	3.5

Attitudes Toward Energy Sources

	Natural Gas	Oil	Coal	Nuclear
Safest to use	(60%)	9	12	8
Best for environment	(61%)	5	5	15
Most economical for consumers	(58%)	5	11	11
Least likely to run out of	(29%)	9	15	(28)
Most acceptable for widespread use	(64%)	9	6	10
Least acceptable for widespread use	5%	7	26	[48]
Responsible for most deaths	9%	10	14	[34]
Responsible for fewest deaths	(31%)	9	13	12
Potentially most dangerous to human life	5%	2	5	[73]

(Total Public)

Six-Year Trend Is Quite Favorable For Natural Gas

Since 1985, The Roper Organization has been regularly tracking public attitudes toward natural gas, oil, coal, and nuclear power. Over this period of time, the image of natural gas has improved dramatically. Meanwhile, perceptions of oil and coal generally have deteriorated, while impressions of nuclear power—which have long been quite negative—have improved slightly.

But the trend for natural gas has been the most impressive. In fact, natural gas is now cited substantially more often than in 1985 with respect to five of the six positive statements asked about. Far more people today than about five years ago describe natural gas as the most acceptable for widespread use (64%, up 5 percentage points), the safest to use (60%, up 14), the most economical for consumers (58%, up 14), responsible for the fewest deaths (31%, up 8), and the one we are least likely to run out of (29%, up 8). Safety for the environment is the only criterion for which natural gas has seen no improvement over the past several years. But even on this measurement, natural gas holds the same huge lead over the other three leading fuels that it did in 1985.

For more than four decades, Roper has identified a segment of the population that we call the Influential Americans, based on their political and social activism. Over the years, the Influentials have shown themselves to be trend-setters, whose behavior and opinions often point to the direction of future social trends. Therefore, the views of the Influentials may provide a useful guide to the future public opinion on energy issues.

Accordingly, we find the Influentials, more so than the public at large, describe natural gas as the safest to use (64% vs. 60%) and the best for the environment (65% vs. 61%). However, they are also somewhat *less* likely to describe natural gas as the most economical for consumers (50% vs. 58%).

And nuclear power—while certainly not popular among either the Influentials or the general public—actually fares better among these opinion leaders than among other Americans. Specifically, more Influentials than the total public believe nuclear power is most economical for consumers (17% vs. 11%), the one we're least likely to run out of (37% vs. 28%), and responsible for the fewest deaths over the past few years (21% vs. 12%). These findings suggest that nuclear power *could* make a comeback either years or decades into the future.

Attitudes Toward Natural Gas
(Trend)

	Current	1990	1986	1985
Safest to use	60%	61%	47%	46%
Best for environment	61%	64%	64%	62%
Most economical for consumers	58%	54%	45%	44%
Least likely to run out of	29%	25%	23%	21%
Most acceptable for widespread use	64%	67%	58%	59%
Least acceptable for widespread use	5%	5%	4%	4%
Responsible for most deaths	9%	12%	13%	18%
Responsible for fewest deaths	31%	28%	23%	23%
Potentially most dangerous to human life	5%	4%	4%	5%

(Total Public)

Use Of Natural Gas Is Widespread

Nearly two-thirds of American households use natural gas for heating, far more than use either electric heat (20%), home heating oil (12%), coal (1%), or solar energy (1%). In addition, almost half of all private residences (46%) use natural gas for cooking, which raises the total proportion of households using natural gas in some way to 71%.

The use of natural gas is highest in the West (in 88% of households), the Midwest (81%), and in the 25 largest metropolitan areas (80% in Nielsen's "A" markets). The lowest levels of usage can be found in the most rural parts of the country (50% in Nielsen's "D" markets), and in the Northeast and South (both 60%).

Home Energy Use

Natural gas for heating	65%
Natural gas for cooking	46
Electric heat	20
Home heating oil	12
Coal heat	1
Solar energy	1
Other	4

(Total Public)

Customers Give High Marks To Natural Gas Service

Satisfaction with natural gas service is extremely high among its users. Over three-quarters say they are very satisfied with all aspects of their natural gas service, while a total of 96% are at least somewhat satisfied. Merely 2% of users of natural gas report being dissatisfied with such things as convenience, safety, and the cost of gas.

Satisfaction with natural gas:

Very satisfied	77%	96%
Somewhat satisfied	19	
Somewhat dissatisfied	2	2
Very dissatisfied	-	

(Users of natural gas)

Strong Interest In Natural Gas Among Non-Users

There is relatively high interest in receiving natural gas service in the 3 in 10 households where it is not already used. In these homes, 44% of adults say they would like to have natural gas service, versus 39% who say they would not. Interest is highest in rural areas where the lack of a strong natural gas infrastructure may be the greatest barrier to widespread use. Majorities of upper income and college-educated Americans also express above average interest in having natural gas service.

Interest in natural gas is lowest, however, in the region where it is least widely used: in Northeast households that do not have natural gas service, only 1 in 3 say they would like to have it, while a larger number (41%) say they are not interested. Also, half of Americans aged 60 or older who do not use natural gas say they do not want it, versus only 35% who do.

Like to have natural gas service in home?

Yes	44%
No	39
Don't know	17

(Non-users of natural gas)

Concerns About Reliability Of Natural Gas Are Fairly Mild

Less than a fifth of the public (18%) are very concerned about the reliability of natural gas service during the coldest part of the year—the same as the proportion who worry about the reliability of oil delivery. About another third of the public are somewhat concerned about the reliability of natural gas (31%) and oil (35%) service. Meanwhile, pluralities are not too concerned about the reliability of natural gas (44%) and oil (41%) delivery.

Total concern about the delivery of both fuels is highest in the Northeast where winters are cold and the use of natural gas is less common than elsewhere.

It is worth noting that while confidence in the reliability of natural gas is virtually the same as it is for oil, the public *does* see differences between the two delivery systems: pipelines for gas and trucks for oil *(see page 16)*. Hence, the question of reliability is not necessarily a strategic advantage for gas in the debate over gas versus oil pipelines.

Concern about reliability of delivery system for...

	Natural Gas	Oil
Very concerned	18%	18%
Somewhat concerned	31	35
Not too concerned	(44)	(41)
Don't know	7	6

(Total Public)

Depletion Of Natural Gas Supplies Not Widely Feared

Americans worry about the possibility that many types of natural resources may be depleted over the next several decades, but relatively few consider the availability of natural gas to be at serious risk.

In the next 25 to 50 years, far more Americans feel there is a danger of running out of such things as clean air (56%), drinking water (44%), wildlife (39%), and oil (29%), than worry about running out of natural gas (17%). In fact, of fourteen natural resources asked about, only coal (at 13%) is named by fewer people than natural gas as something we may run out of in the next 25 to 50 years.

Compared to a decade ago, the proportion worried about a future shortage of natural gas has declined sharply from 30% to 17%. During this time, only for oil has the level of concern dropped as sharply (from 45% to 29%). In both cases, the declines are probably related to the passage of time since the oil crises of the 1970s, which—at least in the public's mind—raised questions about the future of other fossil fuels.

Which natural resources is the country in danger of running out of in the next 25-50 years?

	Current	1986	1981
Clean air	56%	61%	53%
Drinking water	44	47	43
Wild animal life	39	41	40
Trees for lumber and paper	39	35	32
Wilderness areas	36	38	37
Water for irrigating farmland	32	28	29
Fish	31	32	28
Oil	29	31	45
Beaches for public use	29	29	24
Farmland	28	38	38
Parklands for public use	22	23	24
Sufficient land for housing	21	27	27
NATURAL GAS	17	22	30
Coal	13	16	14

(Total Public)

Public Fairly Informed About Natural Gas Distribution System

Almost two-thirds of the public realize—or can at least guess—that long-distance interstate pipelines are the leading method for delivering natural gas from producing fields to market, In addition, 2 in 10 say that tanker trucks are the leading method, while fewer than 1 in 10 mention either tanker ships (6%) or railroad cars (5%).

Meanwhile, the largest number of Americans (44%) say that tanker trucks are the leading method for delivering oil from producing fields to market, while 32% mention ships, 29% say interstate pipelines, and only 7% mention rail cars.

The Influentials (84%), college-educated Americans (75%), and affluent people with household incomes of $50,000 or more (74%), are the most apt to identify pipelines as the leading method for delivery natural gas. These groups also are more likely than the entire public to identify pipelines as a delivery system for oil.

Leading method for delivery from producing fields to market...

	Natural Gas	Oil
Tanker trucks	20%	44%
Tanker ships	6	32
Interstate pipelines	64	29
Railroad car	5	7
None of these	1	2
Don't know	13	10

(Total Public)

Natural Gas Pipelines: Safest For The Public And Environment

Natural gas pipelines are considered safe for the public and for the environment by more Americans than any of four other energy delivery systems asked about.

About 8 in 10 say that long-distance, interstate pipelines are either very (28%) or rather (51%) safe for the public, while 3 Americans in 4 describe it as very (22%) or fairly (53%) safe for the environment. The total numbers describing natural gas pipelines as safe for the public and for the environment narrowly exceed the proportions who say so of oil pipelines and electric power lines, and greatly exceed the levels of confidence expressed in oil trucks and oil tanker ships.

All types of "lines"—pipelines (oil and gas), electric power—instill similar high levels of confidence among the public. This may be true because the operation of "lines" is less subject to human error and unpredictable traffic, weather, and maritime conditions when compared to trucks and tanker ships. Clearly, this is major strategic advantage for all types of pipelines—oil and natural gas included.

Natural gas pipelines get their strongest vote of confidence from the Influential Americans, nearly all of whom describe them as safe for the public (94%) and the environment (89%).

Safety of energy transport, for...

	the Public		the Environment	
	Safe	Unsafe	Safe	Unsafe
IATURAL GAS PIPELINES	(79%)	13	(75%)	18
)il pipelines	77%	14	71%	20
:lectric power lines	74%	19	72%	19
;asoline & oil trucks	66%	28	62%	31
'rains	59%	32	55%	36
)il tanker ships	54%	39	41%	53

(Total Public)

"NIMBY" Sentiments Against Gas Pipelines Are Mild

"Not in my backyard" is an expression widely feared by a variety of businesses and public service providers. Yet owing to both the highly positive image that natural gas enjoys and to the public's confidence in pipelines generally, long-distance natural gas pipelines are not subject to the same local hostility that applies to hazardous waste disposal sites, nuclear power plants, state prisons, and coal-fired utilities, among other sites and facilities asked about.

Only 7% of Americans say that a natural gas pipeline is one of the two or three installations—among ten that were asked about—they would be most opposed to having within a few miles of their home. This compares to far larger numbers who reject the ideas of having a hazardous waste disposal site (67%), nuclear power plant (63%), state prison (45%), or coal-burning utility plant (29%) nearby. Among the ten that were asked about, only a shelter for the homeless (6%) or a long-distance oil pipeline (5%) is opposed by fewer Americans than a natural gas pipeline.

What's more, among no demographic group—regional or otherwise—do more than 1 in 10 mention natural gas pipelines as something they would oppose having within a few miles of their home, relative to the other installations that were asked about.

NIMBY

Opposed to having within a few miles of where respondent lives.

Hazardous waste disposal site	67%
Nuclear power plant	63
State prison	45
Coal burning utility plant	29
High voltage electric power lines	13
Steel mill	13
Mental hospital	12
INTERSTATE NATURAL GAS PIPELINE	7
Shelter for the homeless	6
Interstate oil pipeline	5

(Total Public)

Only One-Third Oppose A Natural Gas Pipeline In Neighborhood

About 1 in 3 Americans say they would object to having a long-distance, interstate natural gas pipeline in their neighborhood. This level of opposition was higher than in an earlier question because the question did not put a pipeline in the context of such things as hazardous waste sites and state prisons. In addition, this later question specified the respondent's neighborhood as the location of a hypothetical pipeline, as opposed to a location within "several miles of here."

Nevertheless, a majority (50%) still say they would not object to having a natural gas pipeline in their neighborhoood, roughly the same as the number who would not object to a similar pipeline for oil (47%). Apparently, no matter what happens to flow through it, a pipeline is a pipeline is a pipeline.

Opposition to a local natural gas pipeline is lowest among men (31% oppose it), in the South (29%), and in the most rural areas (28%). Opposition is greatest in the 25 largest metropolitan areas (41% oppose it), and in the Northeast (46%). These also happen to be the same groups who are most likely to oppose having an interstate oil pipeline in their neighborhood, suggesting that their objections are based on broader issues than natural gas itself.

A long-distance, interstate pipeline through your neighborhood

	Natural Gas	Oil
Would object	35%	38%
Would not object	50	47
Don't know	15	15

(Total Public)

Fears Of Leaks, Explosions Are Chief Objections To Pipelines

The public's chief concerns about interstate pipelines are exactly the same for natural gas as they are for oil pipelines: a fear of either leaks or fires and explosions.

About half say they worry about each of these problems for both types of pipelines. Far less worrisome are long-term environmental damage, construction accidents, or declines in local property values, each mentioned by roughly a quarter of the public. Even fewer worry about disruption in the neighborhood for maintenance or a change in the neighborhood's appearance.

These results demonstrate that in terms of public opinion, the fear of potential accidents is the central issue—not the mere existence and normal operation of pipelines. If this fear can be effectively addressed, then what little opposition currently exsists would likely be reduced.

Concerns about an interstate pipeline in neighborhood

	Natural Gas	Oil
Leak	53%	53%
Explosion or fire	47	45
Accident during construction	26	26
Long-term environmental damage	26	27
Decline in property values	25	29
Neighborhood disruption for maintenance	18	19
Change in neighborhood appearance	16	16
None	13	12
Don't know	6	7

(Total Public)

SUMMARY

- Natural gas has an excellent "image"

  safest to use
  best for environment
  most economical for consumers
  most acceptable for widespread use

- Very high level of satisfaction among users

- Not in danger of running out

SUMMARY

- **A pipeline is a pipeline is a pipeline**

  No differentiation between natural gas and oil interstate pipelines

  little opposition to both in area; more opposition in neighborhood

  both safe for health & safety of public

  both safe for environment

  top concerns about both are leaks and explosions or fires

Methodology

This survey was fielded from March 9 through 16, 1991. A total of 1,972 in-home, personal interviews were conducted with a nationwide cross section of the non-institutionalized population 18 years and older living in the continental United States.

A multi-stage, stratified, area probability sample was used for this study, as in the earlier ROPER REPORTS studies that provided trend data for two of the questions included in this report. The sample is representative of all ages 18 and over, all sizes of communities, geographic areas, and socioeconomic levels.

In addition to this written report, the Interstate Natural Gas Association of America was provided with complete results in tabular format and with the precise wording to the questions that were asked.