

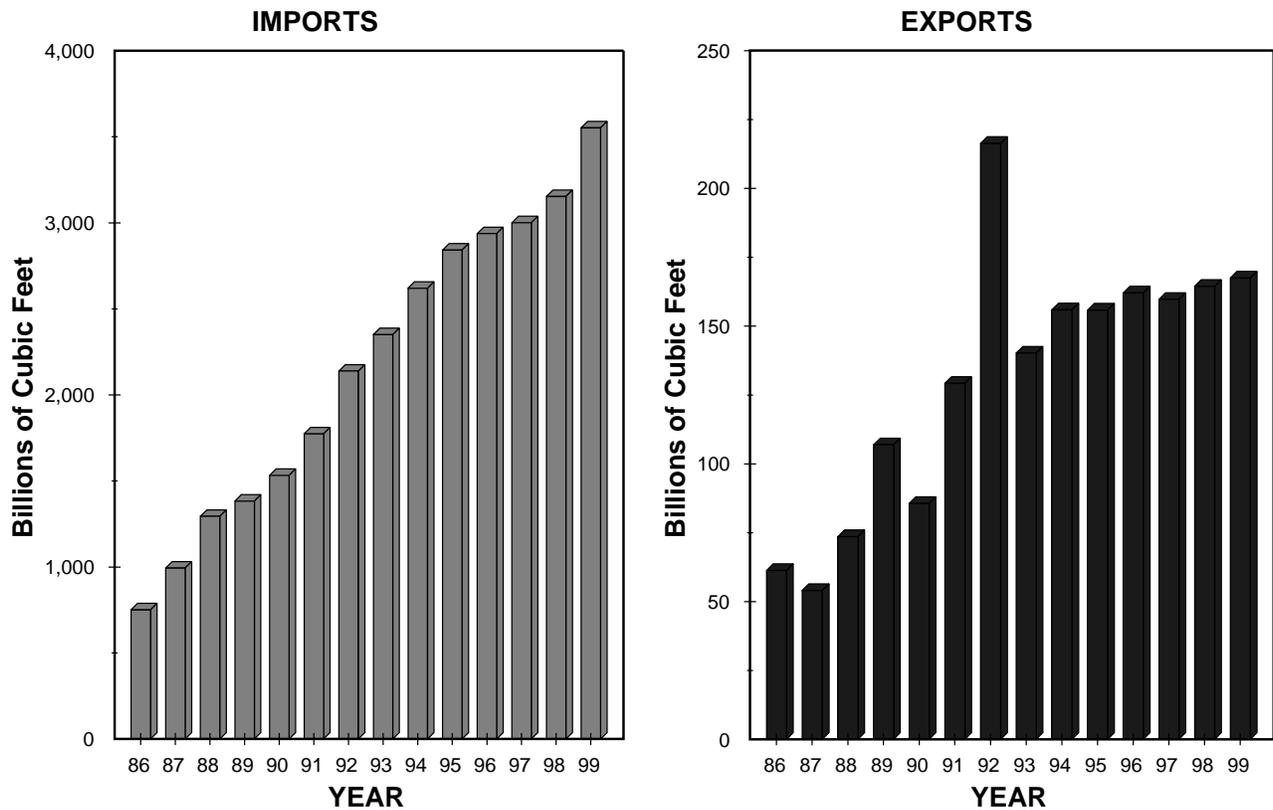
QUARTERLY FOCUS: 1999 YEAR IN REVIEW**Table 1**

--- YEAR AT A GLANCE ---		
<u>TOTAL IMPORTS</u>		
<u>COUNTRY OF ORIGIN</u>	<u>BCF</u>	<u>WEIGHTED AVG. PRICE (\$/MMBtu)</u>
Canada	3331.4	\$2.18
Algeria	75.7	\$2.22 *
Mexico	54.5	\$2.15
Australia	11.9	\$2.33 *
Malaysia	2.6	\$2.15
Qatar	19.7	\$2.41
Trinidad and Tobago	50.8	\$2.28
United Arab Emirates	2.7	\$2.69
TOTAL	3549.3	
<u>TOTAL EXPORTS</u>		
<u>COUNTRY OF DESTINATION</u>	<u>BCF</u>	<u>WEIGHTED AVG. PRICE (\$/MMBtu)</u>
Japan	63.6	\$3.05 **
Canada	42.4	\$2.31
Mexico	61.3	\$2.29
TOTAL	167.3	
* The average landed prices for LNG imported at Everett, MA., under long-term and short-term import authorities were \$2.33 per MMBtu and \$2.37 per MMBtu, respectively. The average tailgate prices for LNG imported at Lake Charles, LA., under long-term and short-term import authorities were \$2.00 and \$2.25, respectively.		
** Delivered price.		

- **Table 1** shows the volumes and prices of natural gas imports by country of origin, and natural gas exports by country of destination for 1999. The weighted average price for imports is the per unit price (MMBtu) at the point of entry into the United States. The price shown for exports is at the point of exit, with the exception of sales to Japan; the price of exports to Japan is shown as a delivered price.
- Natural gas imports, for the twelfth consecutive year, reached an historic high in 1999. The United States imported 3,549.3 billion cubic feet (Bcf) and exported 167.3 Bcf of natural gas, resulting in **net** imports of 3,382 Bcf for the year. This represents an increase of 393.5 Bcf, or 13 percent over the net import 1998 level (2,988.5 Bcf).
- In 1999, natural gas exports increased by 3 Bcf, or 2 percent from the 1998 level (167.3 v. 164.4 Bcf). Exports to Mexico rose 15 percent, while exports to Canada and Japan saw moderate decline.

Natural Gas Import and Export Activity 1986 - 1999

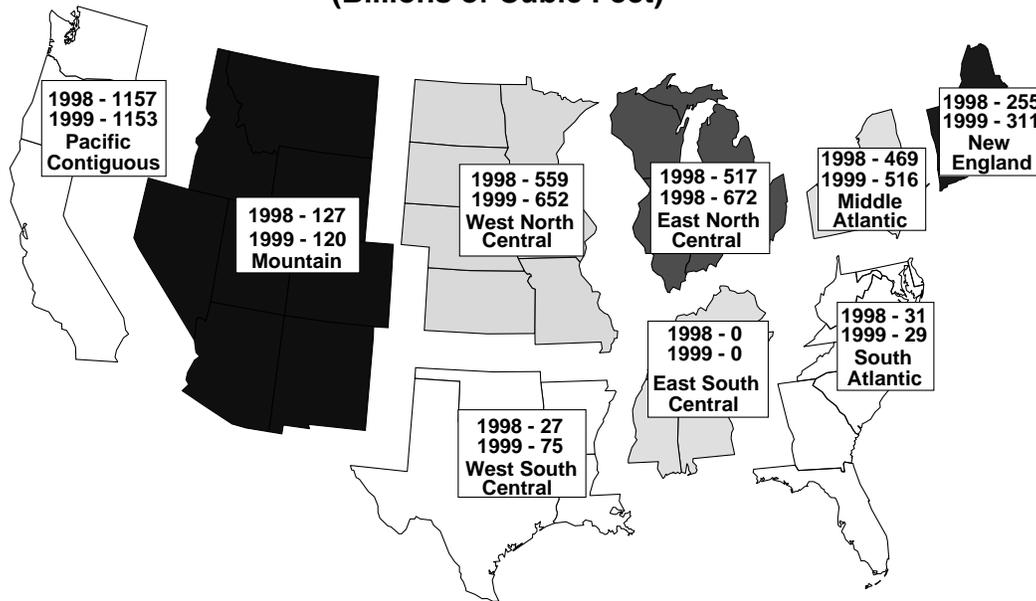
Figure 1



- **Figure 1** shows natural gas import and export activity over the past 14 years (1986-1999).
- From 1986 to 1999, gross imports have grown by over 373 percent (750 Bcf v. 3,549 Bcf). Additionally, **net** imports (imports minus exports) as a percentage of total domestic gas demand have grown from 4.2 percent in 1986 to an estimated 15.8 percent in 1999. The surge in market share for gas imports in 1999 was due to the fact that domestic demand for natural gas grew by only one percent while **net** imports increased by 13 percent.
- Total gross imports into the U.S. increased by 396 Bcf, or 12.6 percent over last year's level (3,549 Bcf v. 3,153 Bcf in 1998). The 12.6 percent increase in imports is the first time in five years imports have increased by double digits and the largest percentage increase since 1992, when the Iroquois Gas Transmission System became operational. On a volumetric basis, the 396 Bcf represents the largest ever year-to-year increase in imports. The large gain in import volumes came from a combination of events. During the year, there was a nine percent growth in Canadian supplies (largely due to the Northern Border Pipeline expansion), a 90 percent increase in LNG supplies (due to a new supply from Trinidad and a brisk spot market) and a 279 percent increase in Mexican volumes (54.5 v. 14.5 Bcf).

Estimated Sales of Imported Natural Gas By Census Division - 1998 and 1999 (Billions of Cubic Feet)

Figure 2



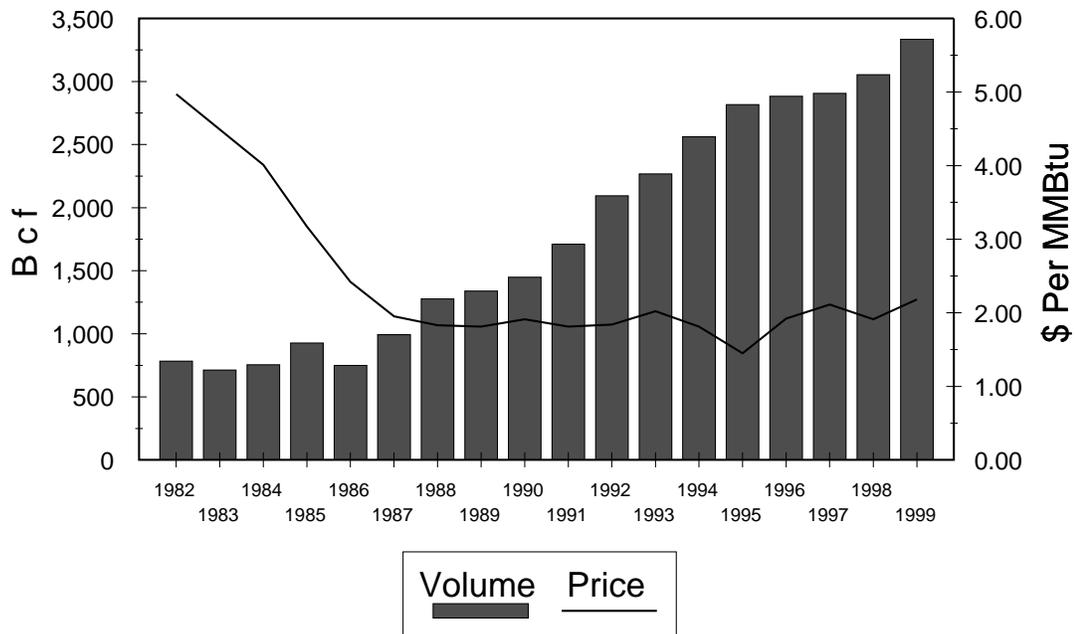
Note: Import sales do not equal imports due to fuel use, linepack, storage, imbalances and undetermined markets.

- Exports were at their highest level since 1992 and totaled 167.3 Bcf. During 1999, about 38 percent (63.6 Bcf) of the gas exports were shipped to Japan, 37 percent (61.3 Bcf) of the volumes were exported to Mexico, and 25 percent of the volumes (42.4 Bcf) were exported to Canada. As shown in **Figure 1**, the largest volume of gas exports occurred in 1992; this historic high level of exports was the result of record export sales to both Canada and Mexico.
- During 1999, natural gas imports into the United States continued their historic growth. As illustrated in **Figure 2**, five of the nine Census regions shown above experienced increased use of natural gas imports. The greatest volumetric increases occurred in the upper Midwest as Region 3 (East North Central) and Region 4 (West North Central) experienced increases of 155 Bcf and 93 Bcf, respectively. This growth was the direct result of the expansion of the Northern Border Pipeline. The expansion of this facility allowed for an additional 248 Bcf of Canadian natural gas to be marketed in these two Regions.
- The growth in natural gas imports depicted in Region 1 (New England) was almost totally attributable to increased sales of LNG, mostly from Algeria and Trinidad. Beginning in May 1999, Trinidad became a major supplier of LNG to the New England region. In 1999, Canadian natural gas supplies marketed in this region were only slightly higher than the 1998 level. The geographic area which had the largest year-to-year growth on a percentage basis was Region 7 (West South Central). The growth reflects the increased volumes of Mexican natural gas exported to the U.S. during the year.

UNITED STATES - CANADA TRADE

Figure 3

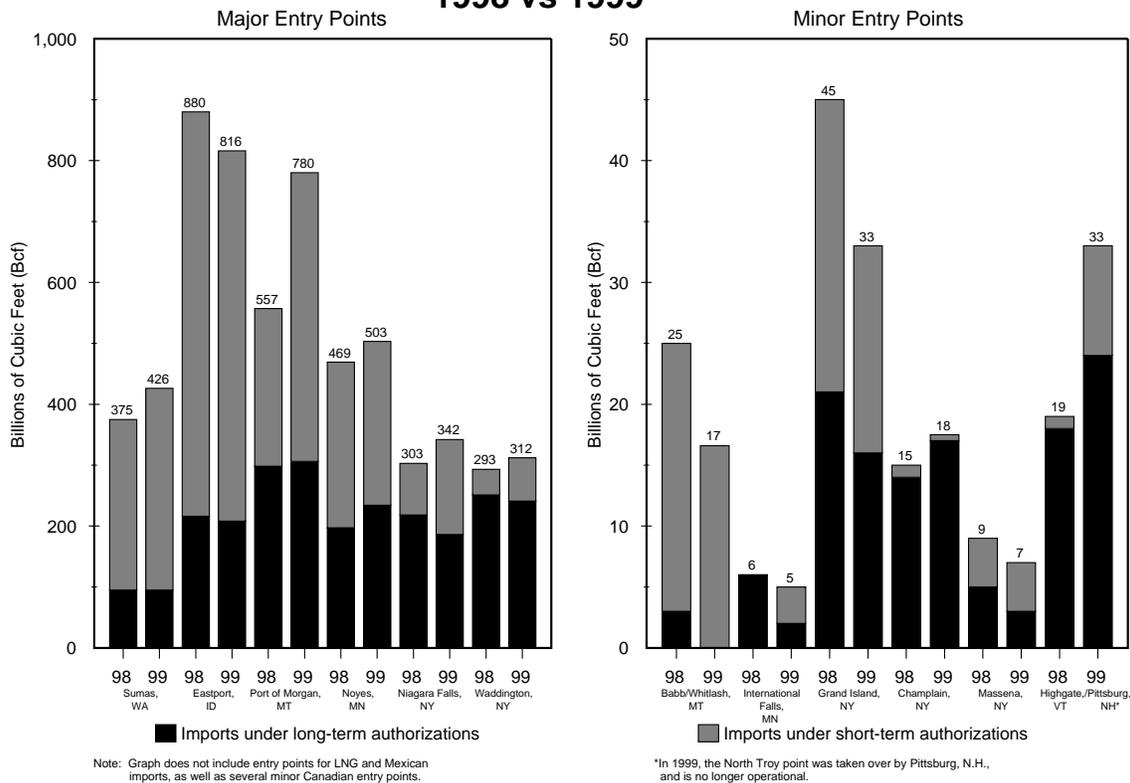
**CANADIAN NATURAL GAS IMPORTS
VOLUMES AND PRICES
1982 - 1999**



- **Figure 3** shows the volume and price trend for Canadian natural gas imports during the past 18 years.
- Canadian natural gas imports in 1999 grew by 279 Bcf and established a new record at 3,331.4 Bcf. The rate of growth from the 1998 level was 9 percent, representing the biggest gain in volumes since 1995 when Canadian imports grew by 10 percent. The average international border price for Canadian gas supplies in 1999 was \$2.18 per MMBtu. This price was 14 percent higher than last year's average price of \$1.91 per MMBtu.
- The increased price for gas supplies in 1999 has resulted in a significant increase in revenues for Canadian gas producers. In 1999, it is estimated that Canadian gas revenues reached \$7.3 billion; this compares with estimated 1998 revenues of \$5.8 billion.
- The average price of gas imported from Canada in 1999 was \$2.28 per MMBtu under long-term contracts (contracts longer than 2 years) and \$2.12 per MMBtu under short-term contracts (contracts of 2 years or less).
- During 1999, Canada's share of the natural gas import market in the United States was 93.9 percent. LNG imports from Algeria, Australia, Malaysia, Qatar, Trinidad and Tobago, and the United Arab Emirates comprised about 4.6 percent of the import market, and Mexico's share equaled about 1.5 percent.

Canadian Natural Gas Imports By Point of Entry 1998 vs 1999

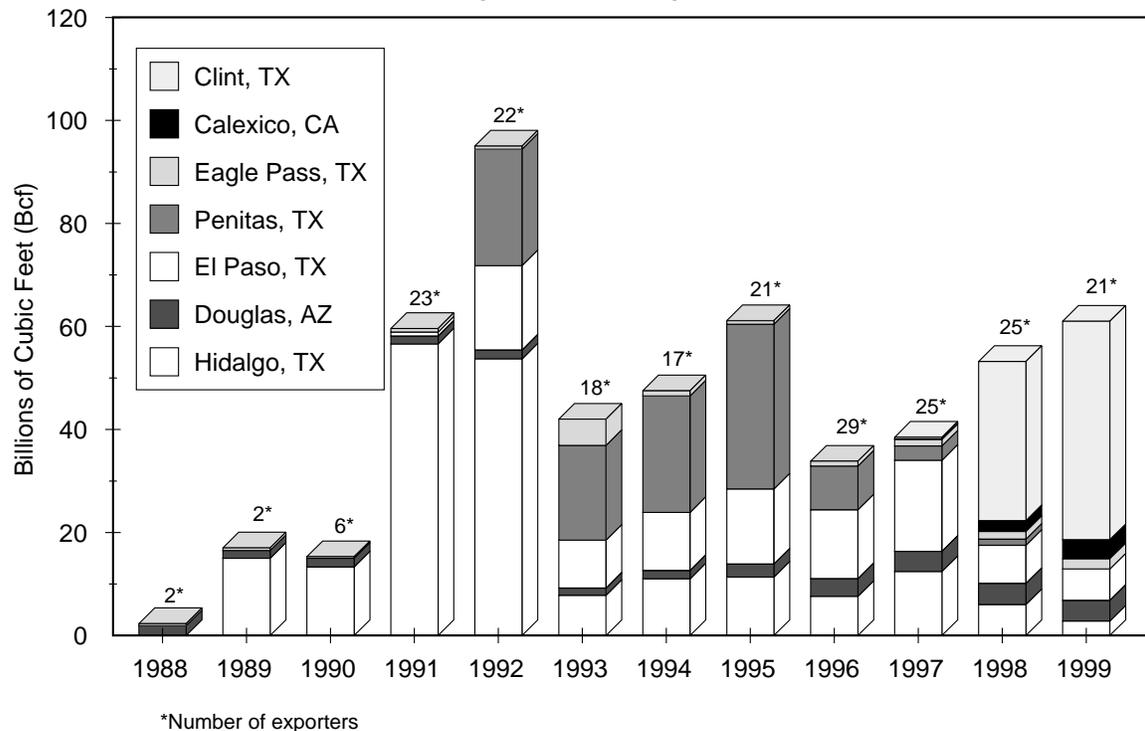
Figure 4



- **Figure 4** compares natural gas imports from Canada by point of entry for 1998 and 1999 and distinguishes between imports made under short-term and long-term import authorizations.
- **Figure 4** shows increased levels of imports at most major import points. During 1999, the international border point of Port of Morgan, Montana, showed the largest increase in volumes (up 36%). This surge in activity was the direct result of the new Northern Border Pipeline Expansion, which commenced service on December 22, 1998. The newly operational pipeline increased Northern Borders’s pipeline capacity by 700 MMcf per day, allowing an additional 612 MMcf per day to flow at this point in 1999. In addition, import levels at other major entry points rose significantly this year: Sumas, Washington (up 14%); Niagara Falls, New York, (up 13%); Noyes, Minnesota, (up 9%); and Waddington, New York, (up 6%).
- Natural gas imports at most of the minor points of entry on the U.S.- Canada international border showed declines in 1999 from the preceding year. Fewer spot sales to the Rocky Mountain states resulted in reduced imports at the Montana/Canada border. Reduced imports at two of the entry points in the State of New York reflect the termination of numerous long-term supply contracts with cogeneration facilities, as well as local utilities, located in the State of New York. The termination of these contracts was the direct result of the electric restructuring efforts by the State over the past few years. This year’s data for the two points of entry into the States of New Hampshire and Vermont were previously both located in Vermont (Highgate Springs and North Troy). The North Troy import point no longer exists and has essentially been replaced by the Pittsburg, New Hampshire entry point.

UNITED STATES - MEXICO TRADE

**Natural Gas Exports To Mexico By Point of Exit
(1988 - 1999)** Figure 5

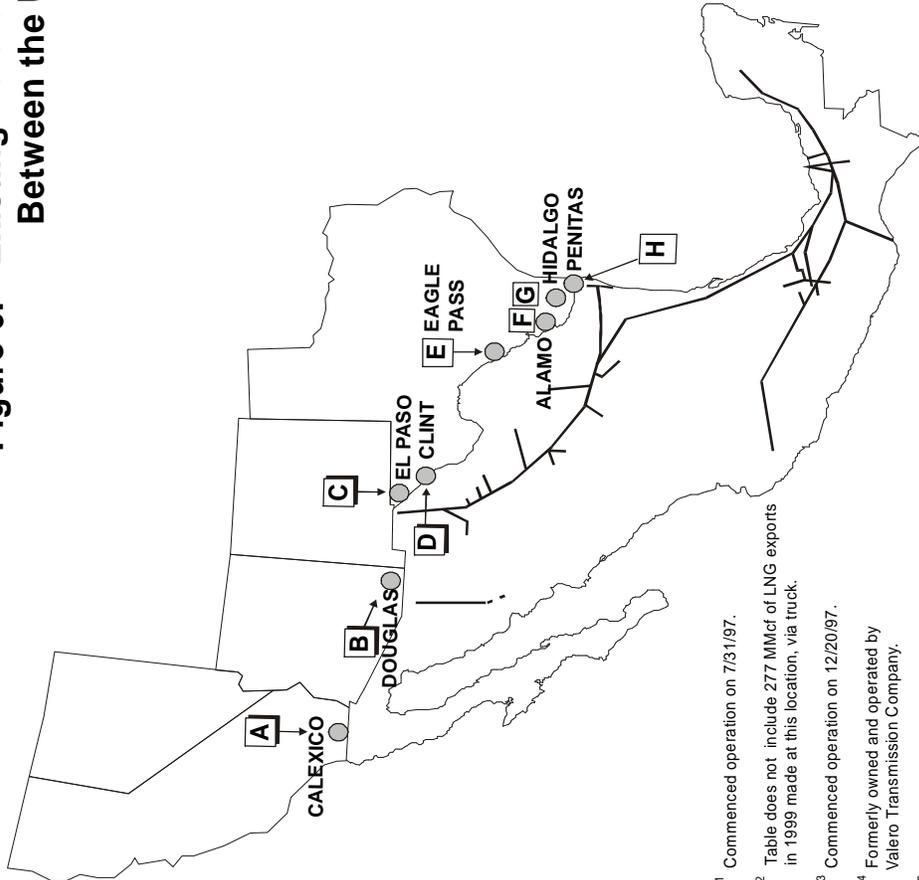


- During 1999, 21 companies exported 61.3 Bcf of natural gas to Mexico, representing the highest level of annual exports since 1992. As shown in **Figure 5**, more than two-thirds of the volumes this year were exported at Clint, Texas, on the Samalayuca pipeline, which commenced operation on December 20, 1997. During the second quarter, the volumes exported at Clint totaled a sizeable 12.1 Bcf, and contributed toward making this location the leading point of export for the second year in a row. In addition, 277.5 MMcf of LNG was exported this year, via truck, to Nogales, Sonora, and Baja California, Mexico.
- The weighted average price of 1999 exports to Mexico was \$2.29 per MMBtu and was 13 percent higher than last year's average price of \$2.02 per MMBtu. In 1998, the weighted average price fell to its lowest level since 1995, when the price was \$1.48 per MMBtu.
- During the second quarter of 2000, it is likely that a new international border crossing facility will become operational and begin exporting natural gas to Mexico at Otay Mesa, California. The 30-inch diameter pipeline, which is being built by the San Diego Gas and Electric Company (an affiliate of Sempra Energy), will have the capacity to export up to 300 million cubic feet of natural gas per day to various customers in Northern Baja California. On March 16, 2000, Gasoducto Rosarito, S. de R.L. de C. V., an indirect wholly-owned subsidiary of

Sempra Energy, filed an application with our office seeking short-term, blanket authority to export up to 155 Bcf over a two year period on this new pipeline facility to serve various markets, including power generators, commercial and industrial end-users, and local distribution companies.

- During 1999 imports from Mexico increased 276 percent over the 1998 level (54.5 Bcf v. 14.5 Bcf). The average international border price for Mexican gas supplies was \$2.15 per MMBtu. This price was 12 percent higher than last year's average price of \$2.01 per MMBtu. It is interesting to note that during the second quarter, the volumes imported from Mexico approached the amount exported to Mexico for that period (16.0 Bcf v. 16.5 Bcf).
- During the year, most of the import volumes were brought into the United States on the Texas Eastern pipeline at Hidalgo, Texas; however, in the fourth quarter of 1999, the principal pipeline facility bringing in gas imports is the newly operational Tennessee Pipeline, located near Alamo, Texas. This bi-directional pipeline commenced operation in late September.
- **Figure 6** on the following page is a map showing the identity and location of the eight existing natural gas pipelines enabling cross-border trade between the United States and Mexico. The Table included with Figure 6 estimates the daily design capacities in millions of cubic feet (MMcf) for all of the pipelines and provides their actual average daily throughput from 1992 through 1999. Our Office currently estimates that the average aggregate throughput capacity of these eight pipelines totals 1370 MMcf per day, or 500 billion cubic feet (Bcf) per year.

Figure 6. Existing Natural Gas Pipeline Interconnects Between the United States and Mexico



¹ Commenced operation on 7/31/97.

² Table does not include 277 MMcf of LNG exports in 1999 made at this location, via truck.

³ Commenced operation on 12/20/97.

⁴ Formerly owned and operated by Valero Transmission Company.

⁵ This bi-directional facility commenced operation on 9/23/99.

⁶ Facility commenced operation on 8/1/92; formerly Valero Transmission.

⁷ Both of these import points have facilities that are bi-directional, but are being used primarily to import natural gas from Mexico.

Sources: Data derived from quarterly reports filed with Fossil Energy by natural gas exporters and filings before the FERC.

EXPORT POINTS											
Existing Exit Points	Pipeline	Estimated Capacity (MMcf/d)	Est. Daily Load Factor								
			1992	1993	1994	1995	1996	1997	1998	1999	
A. Calexico, CA ¹	SoCalGas	25	0	0	0	0	0	0	2	6	10
B. Douglas, AZ ²	El Paso Nat Gas	35	4	4	4	7	9	11	11	11	11
C. El Paso, TX	Norteño Pipeline	90	45	25	31	40	37	49	20	17	17
D. Clint, TX ³	Samalayuca	212	0	0	0	0	0	10	85	116	116
E. Eagle Pass, TX	West Texas Gas ⁴	38	2	2	3	2	3	3	4	5	5
F. Alamo, TX ⁵	Tennessee Pipeline	220	0	0	0	0	0	0	0	0	0
G. Hidalgo, TX	Texas Eastern	350	147	21	30	31	21	33	16	8	8
H. Penitas, TX ⁶	PG&E Texas	400	62	52	62	88	23	8	3	0	0
Totals:		1370	260	104	130	168	93	116	145	167	167

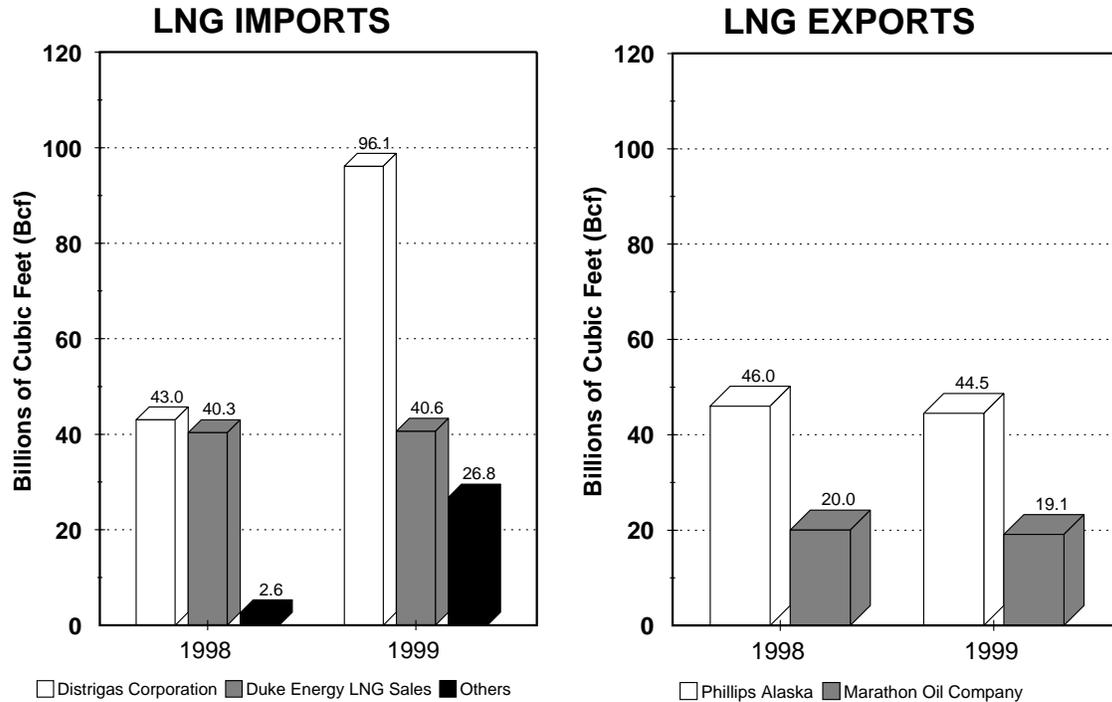
IMPORT POINTS											
Existing Import Points	Pipeline	Estimated Capacity (MMcf/d)	Est. Daily Load Factor								
			1992	1993	1994	1995	1996	1997	1998	1999	
F. Alamo, TX ⁵	Tennessee Pipeline	220	0	0	0	0	0	0	0	0	127
G. Hidalgo, TX ⁷	Texas Eastern	350	0	3	5	16	37	47	40	115	115
H. Penitas, TX ⁶	PG&E Texas	400	0	0	0	2	1	0	.1	0	0
Totals:		970	0	3	5	18	38	47	40	242	242

LNG TRADE

Figure 7

LNG TRADE

1998 vs 1999



- **Figure 7** compares imports and exports of liquefied natural gas (LNG) for 1998 and 1999.
- During 1999, five companies, led by Distrigas Corporation (Distrigas) and Duke Energy LNG Gas Sales, Inc. (Duke Energy), imported a record 163.4 Bcf of LNG into the United States. As shown in **Figure 7**, total LNG imports in 1999 increased by 90.2 percent from the 1998 level (163.4 v. 85.9 Bcf). Imports by Distrigas into its Everett, Massachusetts, terminal rose an impressive 123.2 percent (96.1 v. 43.0), and imports by Duke Energy into CMS Energy’s Lake Charles, Louisiana, terminal increased slightly (40.6 v. 40.3). In addition, three companies made spot purchases of 26.8 Bcf at the Lake Charles terminal this year: Enron International Gas, Coral Energy and CMS Marketing. The growth of LNG spot sales by new importers increased by 24.2 Bcf from last year, when Enron imported 1 spot cargo of 2.6 Bcf.
- **Table 2** on the following page shows a detailed listing of 1999 imports of LNG. During 1999, a total of 72 cargoes of LNG were imported into the United States. Distrigas imported a total of 45 cargoes; it purchased 17 cargoes from Algeria under two long-term import authorizations and 18 cargoes from another long-term import authorization involving the newly operational Trinidad and Tobago LNG facility. In addition, Distrigas imported 9 spot cargoes from Trinidad and 1 spot cargo from Australia. The total number of cargoes imported this year by Distrigas increased by 165% over last year’s shipments (45 v. 17 cargoes).

1999 Imports of Liquefied Natural Gas

Table 2

Name of Importer	Country of Origin	Number of Cargoes	Receiving Terminal	Volume (Mcf)	Avg. Price (\$/MMBtu)
CMS Marketing	Australia	4	Lake Charles, LA	9,346,442	\$2.13*
CMS Marketing	Qatar	5	Lake Charles, LA	12,141,012	\$2.69*
Coral Energy	Malaysia	1	Lake Charles, LA	2,575,895	\$2.15
Distrigas Corp.	Algeria	17	Everett, MA	42,734,526	\$2.36
Distrigas Corp.	Australia	1	Everett, MA	2,556,896	\$3.06
Distrigas Corp.	Trinidad	27	Everett, MA	50,777,738	\$2.28
Duke Energy	Algeria	13	Lake Charles, LA	33,028,938	\$2.04*
Duke Energy	Qatar	3	Lake Charles, LA	7,556,475	\$1.96*
Enron Int'l. Gas	U.A.E.	1	Lake Charles, LA	2,713,384	\$2.69
		72		163,431,306	\$2.28

* Denotes tailgate price. All imports coming into Everett, MA., are shown at the "landed cost" while most imports coming into Lake Charles, LA, (except Coral and Enron) are shown at the "tailgate selling price." Imports by Coral and Enron are at "landed cost."

Duke Energy imported a total of 16 cargoes in 1999, the same as in 1998. This year Duke purchased 13 cargoes from Algeria (10 under its long-term authorization and 3 under its short-term authorization), and 3 cargoes from Qatar under its short-term import authority. In addition, CMS Marketing purchased 9 spot market cargoes (5 from Qatar, and 4 from Australia), and Enron International Gas purchased 1 spot cargo from the United Arab Emirates. This year, LNG was imported for the very first time from Malaysia. In August, Coral Energy, importing gas for the first time, purchased 1 spot cargo at the Lake Charles, Louisiana, terminal.

- The average landed price of Algerian LNG imported in 1999 by Distrigas under its long-term authorization was \$2.36 per MMBtu, a nine percent decrease from the 1998 price of \$2.59 per MMBtu, and the average landed price of LNG imported from Trinidad under new long-term arrangements was \$2.30. With respect to Duke Energy's purchases of Algerian LNG under a long-term contract, the average tailgate price in 1999 was \$2.00 per MMBtu, up four cents from last year's price of \$1.96 per MMBtu. Under short-term authorizations, the average landed prices paid by Distrigas, Coral Energy and Enron were \$2.37, \$2.15, and \$2.69 per MMBtu, respectively, and the average tailgate prices paid by Duke and CMS Marketing were \$2.06 and \$2.45.

- **Table 3** below shows the growth and diversity of countries supplying LNG to the U.S. over the last 5 years and signifies the expansion of spot sales in this trade.

Table 3

SPOT / SHORT-TERM SELLERS OF LNG TO THE UNITED STATES Billions of Cubic Feet (Bcf)					
COUNTRY	1995	1996	1997	1998	1999
Australia			9.7	11.6	11.9
United Arab Emirates		4.9	2.4	5.3	2.7
Algeria	5.1			2.7	10.1
Qatar					19.7
Trinidad and Tobago					13.2
Malaysia					2.6
TOTAL SPOT MARKET CARGOES	2	3	5	8	27
TOTAL LNG SPOT SALES	5.1	4.9	12.1	19.6	60.2
% of total LNG Imports	28.5	12.2	15.6	22.8	36.8

- The trend in LNG supply is expected to continue as new import facilities are planning to be reopened in Maryland and Georgia. In January 2000, Columbia LNG Corporation took over sole ownership of the Cove Point LNG terminal, located in Lusby, Maryland. Cove Point plans to reopen its LNG marine terminal facilities by late 2001, pending approval by the Federal Energy Regulatory Commission (FERC). In another important development, the Department of Energy, on January 21, 2000, authorized El Paso Merchant Energy-Gas, L.P. to import up to 82 Bcf per year of LNG from Trinidad and Tobago for over 22 years to its currently idle Elba Island, Georgia, terminal. The FERC is expected soon to issue a Certificate of Public Convenience and Necessity authorizing the recommissioning of the facility after 20 years of inactivity. In the past few months, the FERC has given a preliminary determination on nonenvironmental issues and most recently also decided that recommissioning the Elba Island facility would have no significant impacts on the environment.

- The future demand for imported LNG is uncertain; however, recent announcements by the industry would seem to indicate substantial growth in the foreseeable future. One area of growth will likely be for power generation. For example, in January, Sithe Energies signed an agreement with Cabot LNG to purchase approximately 70 Bcf per year of regasified LNG. The supply, equal to about 25 LNG cargoes per year, will be used to fuel Sithe's 1,600 MW Mystic Station powerplant currently under construction at Everett, Massachusetts. The facility is expected to begin operation in 2002. Cabot's recent agreement with Sithe joins two other arrangements made over the past six months. One involves a multi-year agreement between Cabot and the Berkshire cogeneration facility, owned by El Paso Energy, which specifies deliveries of 25 MMcf per day of LNG. Another recent arrangement requires delivery of regasified LNG to a nearby 350-MW powerplant. The plant, owned by Cabot's affiliate, Cabot Power, currently is being constructed near the LNG terminal. Together, Cabot's three new supply agreements will require an additional 100 Bcf per year of LNG supplies to meet this increased demand.
- Another LNG project, EcoElectrica, L.P., a limited partnership between Enron Development Corporation and Edison Mission Energy, is expected to begin importing LNG from Trinidad and Tobago by mid-year. The gas will be used to fuel a 461-MW combined-cycle cogeneration plant located on the south coast of Puerto Rico near the city of Ponce. EcoElectrica has a long-term purchase contract with Cabot LNG for acquiring 10 cargoes per year (approximately 29 Bcf) over a 20-year period.
- On March 13, 2000, the government of Trinidad and Tobago announced the signing of an agreement with Atlantic LNG Company of Trinidad and Tobago supporting a billion-dollar expansion of the company's existing LNG production and export facility located in Point Fortin. The facility expansion (adding two more trains) will triple the production and export of LNG by the year 2003. Much of this future LNG supply will likely be marketed in the United States.
- **Figure 7** shows the volume of LNG exported by Phillips Alaska Natural Gas Corporation (Phillips) and Marathon Oil Company (Marathon) from Kenai, Alaska, to Japan during 1998 and 1999.
- LNG exports to Japan decreased 3.6 percent this year from the 1998 level (63.6 v. 66.0 Bcf). The weighted average delivered price for these volumes in 1999 was \$3.05 per MMBtu, which represents a 6 percent increase over the 1998 price of \$2.87 per MMBtu. Last year's price was the lowest since 1979, when the average annual sales price for LNG delivered to Japan was \$2.32 per thousand cubic feet (EIA/DOE-0130, *Natural Gas Monthly*, Table SR9, page xxxii). In addition, LNG volumes totaling 277.5 MMcf were exported to Nogales, Sonora, Mexico, via truck, this year.

Note: Data used in this report are from company filings made with the Office of Fossil Energy (FE). All 1998/99 year-to-year comparisons utilize FE data. One should be mindful of the fact that FE data is collected on an equity (sales) basis, rather than on a custody (physical movements) basis, as employed by the Energy Information Administration (EIA) in its reports. As a consequence, the data may have some minor variances.