QUARTERLY FOCUS

2001 NATURAL GAS IMPORT/EXPORT TRADE: A SECOND LOOK

The Focus feature that was included in the fourth quarter 2001 *Quarterly Report of Natural Gas Imports and Exports* ("*Report*") provided an overview of natural gas import/export activity for calendar 2001. This Focus feature, like the ones found in the *Report* issued in the first quarter of the past four years, provides additional information on North American natural gas trade. Specifically, it provides more volume and price information on U.S. natural gas import trade with Canada; reviews volume and price trends with respect to natural gas exports to Mexico; looks at gas marketing developments in California and New England, two important regional markets for imported gas; and identifies the major importers and exporters transacting cross-border sales between the United States, Canada and Mexico.

2001 Natural Gas Trade with Canada

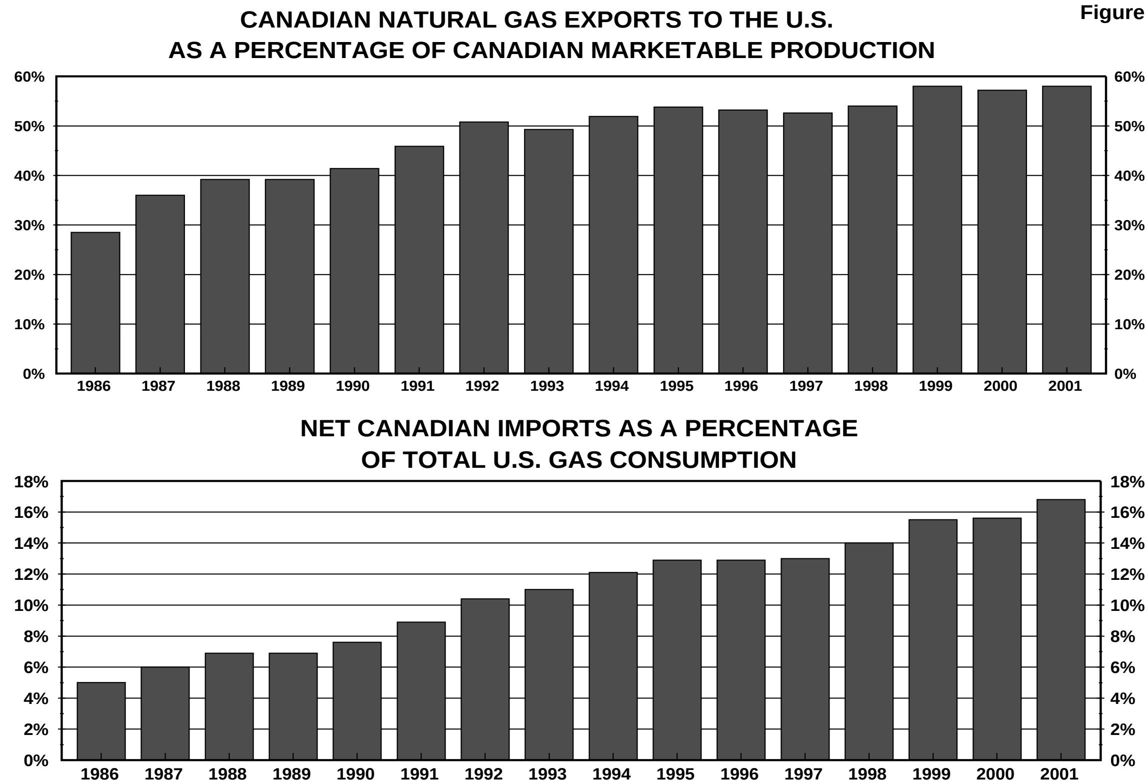
Canadian imports continue to be an increasingly important supplemental source of natural gas to U.S. markets. Since 1985, import volumes from Canada have almost grown by over 306 percent. **Figures 1 and 2** on page ii illustrate the significant growth over the past sixteen years (1986-2001) of Canadian gas imports into the U.S. and the growing importance of this trade to Canadian producers in terms of expanded markets and revenues generated from this cross-border trade.

In **Figure 1**, the first bar chart shows Canadian natural gas exports to the U.S. as a percentage of Canada's total marketable production from 1986 to 2001. During this sixteen-year period, this percentage has grown from 29 percent in 1986 to 58 percent in 2001 [National Energy Board of Canada's (NEB) *2001 Annual Report*]. This was the eighth year in a row where gas exports to the U.S. equaled more than half of Canada's marketable production. The increase this year was primarily due to the first full year of operation for the Alliance Pipeline and an increase in supplies from the Sable Island Offshore Energy Project, on the Maritimes & Northeast Pipeline. The second bar chart in **Figure 1** shows the growth in U.S. market shares for Canadian gas imports from 1986 to 2001. As illustrated, net Canadian imports as a percentage of total domestic gas demand has grown from 4.6 percent in 1986 to an estimated 16.4 percent in 2001.

Recent projections by most forecasters show continuing growth in Canadian gas sales to the U.S., including Natural Resources Canada (NRC), the Energy Information Administration (EIA), and the National Petroleum Council (NPC). The NRC's recent annual report, titled *Canadian Natural Gas: Market Review & Outlook* (May 2001), forecasts that annual Canadian gas exports to the U.S. likely will reach 4 Tcf by 2005 and 4.2 Tcf by 2010. The NRC projection is best viewed as a minimum forecast since it does not assume any export pipeline capacity expansions. EIA projects in its reference case forecast that Canadian natural gas imports will grow to 4.51 Tcf by 2010 and 5.06 Tcf by 2020 [*Annual Energy Outlook 2002*, DOE/EIA-0383(2002), December 2001].

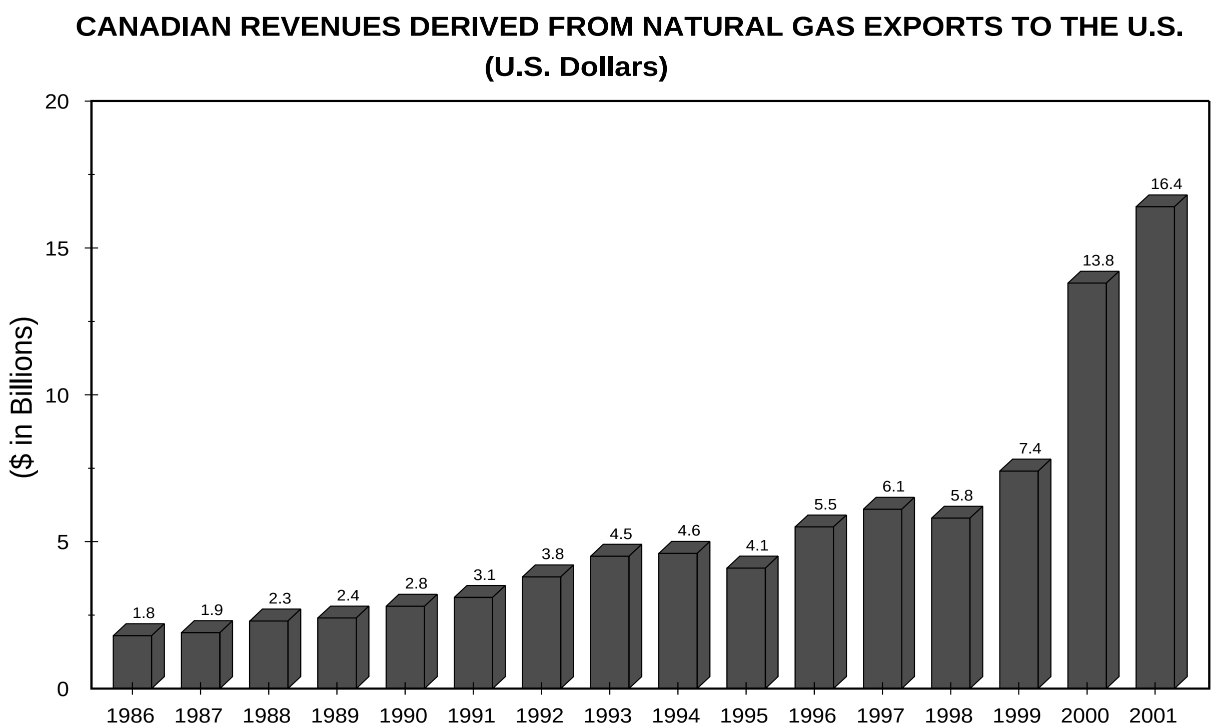
The estimated revenues accrued to Canadian natural gas exporters for natural gas sales to the U.S. over the past 15 years (1986-2001) are shown in **Figure 2**. The Office of Fossil Energy estimates that in 2001, Canadian gas exports to the U.S. generated over $16.4 billion in revenues, up almost 19 percent from last year's earnings of $13.8 billion. This sharp rise in Canadian export revenues is the direct result of record volumes entering the U.S. at record high prices. The weighted average international border price of Canadian gas imported into the U.S. during 2001 was $4.36 per MMBtu. This is an increase of almost 12 percent over 2000's average price of $3.90 per MMBtu.

Figure 1



Sources: Statistics Canada, Natural Resources Canada, company filings with FE.

Figure 2



Sources: 1992 - 2001 estimates derived from company filings with FE; 1986 - 1991 estimates from *Natural Gas Monthly,* [DOE/EIA - 0130 (97/08), table SR7, page XIV].

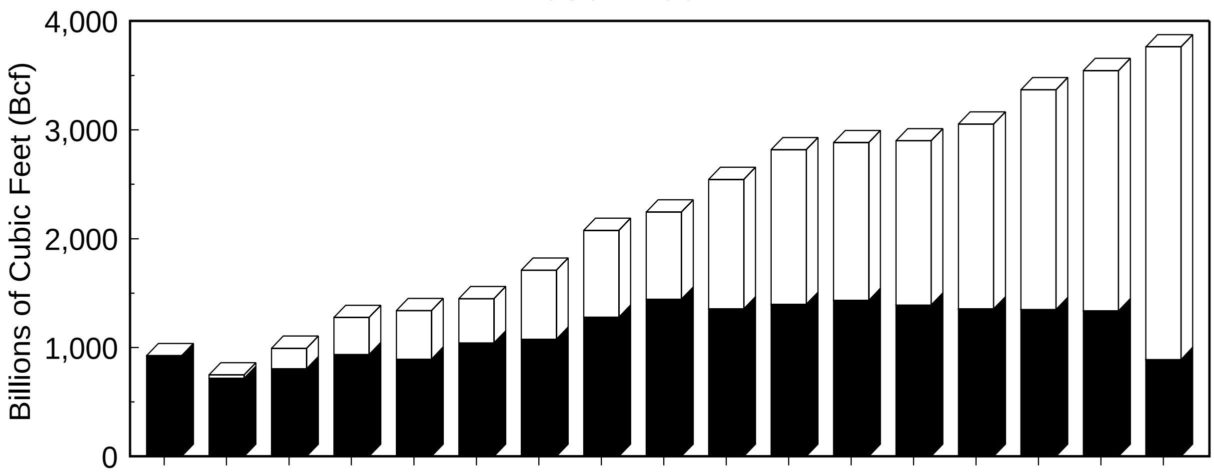
During 2001, 109 companies imported Canadian natural gas under short-term authorizations (for gas purchase contracts of two years or less), and 85 companies used 180 gas purchase contracts to import volumes under long-term arrangements (for gas purchase contracts longer than two years). These companies imported a record volume of 3,762.6 Bcf of natural gas during the year. This represented an increase of 216.7 Bcf, or 6.1 percent over the 2000 total of 3,545.9 Bcf. Much of this increase occurred in the Midwest, due to the first full year of operation of the Alliance Pipeline.

Of the 3,762 Bcf of Canadian gas imported in 2001, 76.4 percent (2,873 Bcf) was imported under short-term authorizations, while 23.6 percent (889 Bcf) was imported under long-term authorizations. This was the sixth straight year in which more Canadian natural gas was imported under short-term than under long-term authorizations. Comparing 2001 and 2000 Canadian imports by type of authorization used, gas imported under short-term contractual arrangements rose approximately 30 percent or by 665 Bcf, and imports this year under long-term contractual arrangements fell by 447 Bcf, or 33.5 percent.

Figure 3 below illustrates the dramatic growth in the use of short-term import authorizations over the past 17 years (1985-2001). From 1994-2000, gas imports under long-term authorizations remained relatively constant, with virtually all of the growth in Canadian gas imports during this period coming from increased sales under short-term authorizations. However, in 2001, long-term imports fell by a significant 33.5 percent, largely due to increased volumes imported under short-term arrangements on the Alliance and Maritimes pipelines. Nevertheless, certain importers most likely will continue to utilize long-term contractual arrangements, e.g., cogeneration facilities.

Figure 3

CANADIAN NATURAL GAS IMPORTS BY TYPE OF IMPORT AUTHORIZATION 1985 - 2001



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Long-Term Imports* ■	923	716	805	935	893	1,041	1,076	1,278	1,443	1,355	1,396	1,432	1,389	1,354	1,348	1,336	889
Short-Term Imports** □	3	33	188	341	446	407	634	798	801	1,189	1,420	1,451	1,510	1,699	2,020	2,208	2,873
TOTAL IMPORTS	926	749	993	1,276	1,339	1,448	1,710	2,076	2,244	2,544	2,816	2,883	2,899	3,053	3,368	3,544	3,762
Short-Term Imports as a % of Total Imports	***0.3***	***4.4***	***18.9***	***26.7***	***33.3***	***28.1***	***37.1***	***38.4***	***35.7***	***46.7***	***50.4***	***50.3***	***52.1***	***55.7***	***60.0***	***62.3***	***76.4***

* Imports made under gas purchase contracts longer than 2 years.
** Imports made under gas purchase contracts which are 2 years or less.

Under short-term authorizations, the average border price of gas supplies imported from Canada in 2001 was $4.37 per MMBtu, which was almost 8 percent higher than last year's average price of $4.05 per MMBtu. Under DOE's long-term authorizations, the average border price was $4.31 per MMBtu, or an increase of 18 percent over last year's average price of $3.65 per MMBtu.

The increase in the average price for Canadian natural gas imports during 2001 was consistent with what occurred in the entire industry, as seen by the record high prices during the first half of the year. Based on preliminary data from EIA, the price in 2001 for Canadian supplies at the international border rose at approximately the same rate as the price for domestic supplies at the wellhead. EIA reports that the average domestic wellhead price for natural gas in 2001 was $4.12 per Mcf, which was $0.43, or 11.6 percent more than the 2000 average price of $3.69 per Mcf [*Natural Gas Monthly* (May 2002), p. 13]. As mentioned on page i, this compares with an average price of $4.36 per MMBtu for Canadian gas supplies and about a 12 percent year-to-year increase in price.

Table 1 shows the monthly international border prices for Canadian natural gas imports, by region, for 2000 and 2001. The three principal marketing regions for Canadian gas are the West, the Midwest, and the Northeast. The prices for these regions are derived by combining the international border prices at the two principal entry points serving each of the three regions. As illustrated in **Table 1**, all three regions experienced price increases in 2001 compared to 2000. The price of Canadian natural gas marketed in the West rose by $0.91 or by 24.4 percent. The Midwest saw an increase of $0.35 per MMBtu or 9.5 percent and the price in the Northeast rose by $0.70 or 17 percent.

International Border Import Prices ($/MMBtu) — Table 1

	WEST				MID-WEST				NORTHEAST			
Month	Eastport, Idaho		Sumas, Washington		Port of Morgan, Montana		Noyes, Minnesota		Niagara Falls, New York		Waddington, New York	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
January	$2.19	$9.28	$2.33	$12.33	$2.15	$8.83	$2.38	$8.56	$2.66	$9.44	$2.76	$9.66
February	$2.21	$7.26	$2.38	$6.48	$2.32	$5.75	$2.60	$5.79	$2.92	$6.29	$3.02	$6.57
March	$2.33	$5.90	$2.35	$5.55	$2.31	$4.78	$2.63	$4.80	$2.97	$5.37	$3.01	$5.34
April	$2.64	$5.81	$2.73	$5.19	$2.56	$4.98	$2.88	$4.98	$3.09	$5.01	$3.20	$5.70
May	$2.75	$6.05	$2.80	$4.92	$2.80	$4.46	$3.04	$4.28	$3.37	$4.55	$3.42	$5.01
June	$3.24	$4.29	$3.60	$4.21	$3.79	$3.51	$4.15	$3.47	$4.17	$4.01	$4.33	$4.12
July	$3.69	$2.92	$3.85	$2.91	$3.84	$2.88	$3.79	$2.98	$4.15	$3.55	$4.44	$3.50
August	$3.44	$2.98	$3.05	$2.71	$3.40	$3.05	$3.63	$2.97	$3.96	$3.41	$4.07	$3.42
September	$3.77	$2.49	$3.50	$2.34	$4.08	$2.68	$4.24	$2.30	$4.38	$3.07	$4.73	$2.77
October	$4.56	$2.01	$4.70	$1.90	$6.76	$1.95	$4.36	$1.95	$4.96	$2.77	$5.39	$2.44
November	$5.04	$2.68	$4.86	$3.11	$4.59	$2.75	$4.52	$3.00	$4.94	$3.28	$4.91	$3.23
December	$8.20	$2.57	$12.12	$3.20	$5.90	$2.21	$6.14	$2.42	$6.23	$3.20	$6.51	$2.79
Average at Entry Point	**$3.72**	**$4.63**	**$4.20**	**$4.67**	**$3.66**	**$3.95**	**$3.68**	**$4.12**	**$4.03**	**$4.85**	**$4.16**	**$4.72**
Average for Region	**Averages for West 2000: $3.86 2001: $4.64**				**Averages for Mid-West 2000: $3.67 2001: $4.02**				**Averages for Northeast 2000: $4.09 2001: $4.79**			

Figure 4 shows the 2000 and 2001 weighted average border price for Canadian natural gas imported under short-term contracts by Census Region. Approximately 99.7 percent of all short-term Canadian gas sales to the U.S. in 2001 were concentrated in six Census Regions (1,2,3,4,8,9). This year, gas sales to customers in the Midwest (Regions 3 and 4) increased by 53 percent compared to 2000. Canadian natural gas marketed to customers in New England (Region 1) rose by 14 percent. As indicated, the average border price for **all** short-term imports in 2001 was $4.37 per MMBtu, or 8 percent higher than the 2000 price of $4.05 per MMBtu.

Although the prices in most Census Regions continued to rise this year, there were some variances within the areas. The largest price increases compared to 2000 were seen in Region 9 and Region 2, up $0.75 and $0.69, respectively. The lowest prices this year occurred in Census Region 5 ($2.67) and in Census Region 3 ($3.95). This year also marked the first time that the price of Canadian natural gas marketed to customers in New England was lower than the price of Canadian supplies serving customers on the West Coast (Region 9).

Figure 4

THE WEIGHTED AVERAGE PRICE IN 2000 & 2001 FOR CANADIAN NATURAL GAS IMPORTED UNDER SHORT-TERM CONTRACTS BY CENSUS REGION ($/MMBtu)

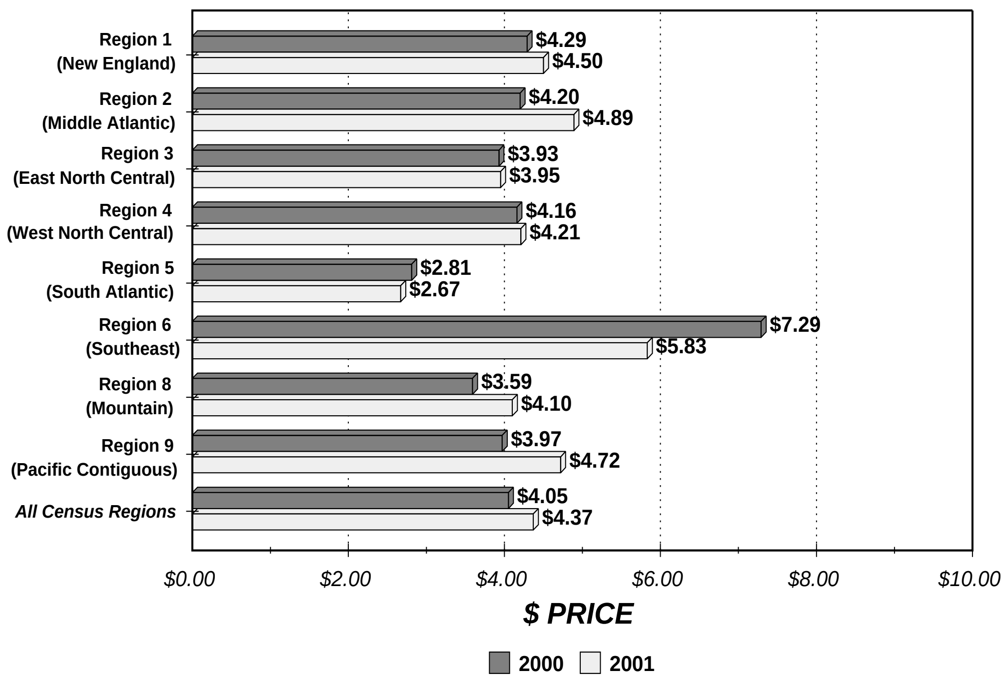


Figure 5 lists the top ten importers of Canadian natural gas for the year. These ten firms imported a total of 1,729.2 Bcf or 46 percent of the total Canadian gas imported in 2001. **Figure 5** also indicates whether the imports were made under short-term or long-term authorizations. About 75 percent of the volumes imported by this group was done under short-term authority and 25 percent was under long-term authority. Eight of these companies were also among the top ten companies listed for 2000. This year's additions to the list were Nexen Marketing U.S.A. Inc. and Tenaska Marketing Ventures. There was only one end-user among the top importers in 2001 -- PG&E, a combined electric/gas utility. The rest of the importers were marketers, producer affiliates, or gas aggregators. Compared with last year's import levels, BP Canada Energy Marketing Corporation (BP) experienced the largest year-to-year volumetric and percentage gains. Natural gas imports by BP this year grew by 145.1 Bcf or 172 percent from 2000. Imports by Pan-Alberta Gas (U.S.) fell by 194.2 Bcf or 59 percent compared to 2000. In addition, this year Mirant became the largest gas marketer in Canada and the second-largest gas marketer in North America with its acquisition of the gas marketing and trading business of TransCanada PipeLines Limited on December 6, 2001.

Figure 6 lists the ten largest suppliers of Canadian gas to the U. S. in 2001. The volumes supplied by each company include both short-term and long-term sales. Eight out of ten companies were also on the list of top gas suppliers for 2000. Dynegy Canada and PanCanadian Petroleum Ltd. joined the list in 2001, replacing Enron Canada and Coral Energy Canada from last year's roster. As shown, most of these top suppliers are gas aggregators. These ten companies supplied approximately 60 percent of all Canadian gas imports during 2001 (2,260.7 Bcf).

Figure 5

TEN LARGEST IMPORTERS OF CANADIAN NATURAL GAS IN 2001

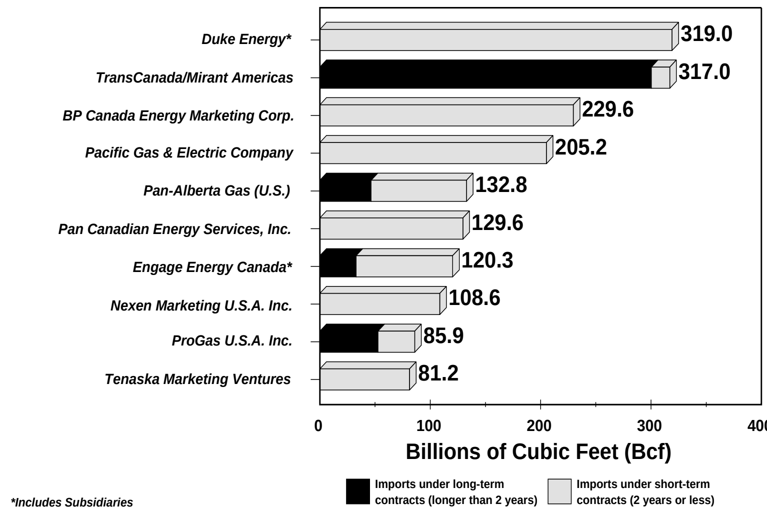


Figure 6

TEN LARGEST SUPPLIERS OF CANADIAN NATURAL GAS IN 2001

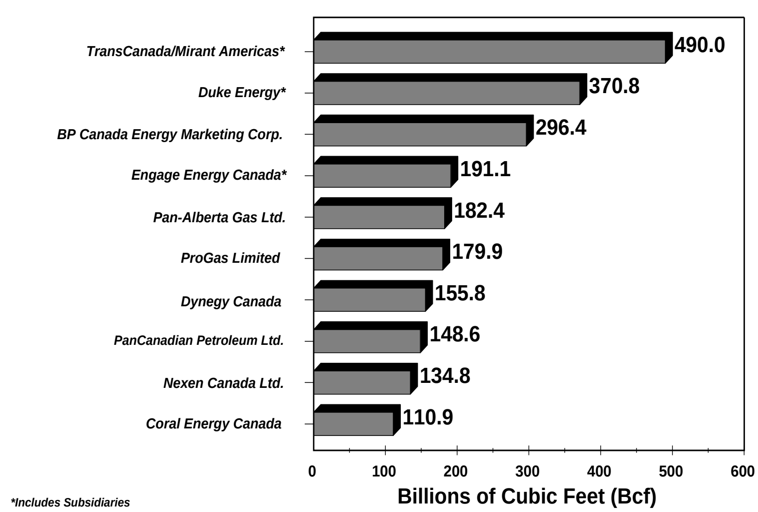
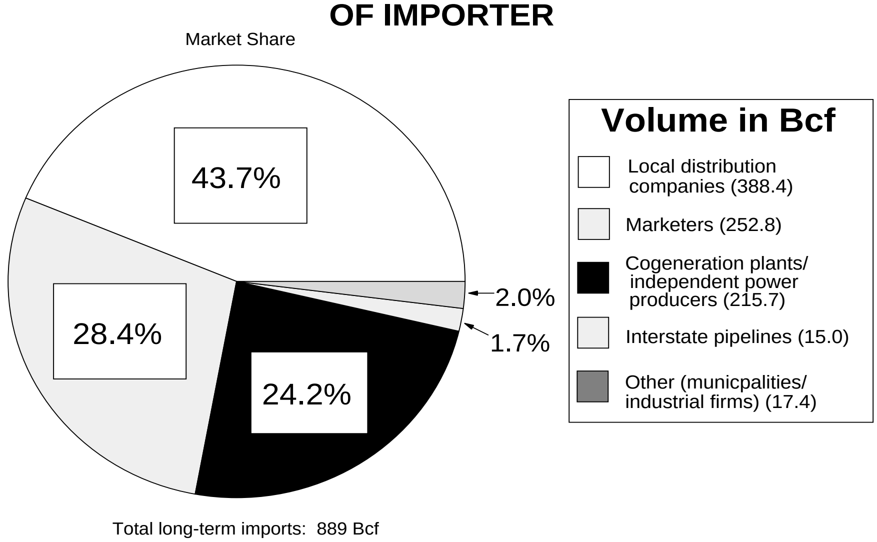


Figure 7 shows the type of importer that purchased Canadian natural gas under long-term supply contracts during 2001. Due to the increased use of short-term arrangements this year, many long-term categories witnessed declines in import volumes. However, the only group experiencing a drop in both volumes imported and percentage of market share this year was the marketers category. In 2001, volumes imported by this group fell 57 percent (252.8 v. 586.4 Bcf) compared to 2000.

Purchases of Canadian gas by local distribution companies fell 18.3 percent this year (388.4 v. 475.6 Bcf). Nevertheless, importers in this category held the largest market share of imports under long-term arrangements. Imports in the cogen/independent power producers category fell 9.7 percent (215.7 v. 239.0 Bcf) and imports by firms in the municipalities/industrial category fell by 11.2 percent (17.4 v. 19.6 Bcf). Imports by interstate pipelines remained constant (15.0 Bcf).

Figure 7 **2001 CANADIAN NATURAL GAS IMPORTS UNDER LONG-TERM IMPORT AUTHORIZATIONS BY TYPE OF IMPORTER**



Notes:

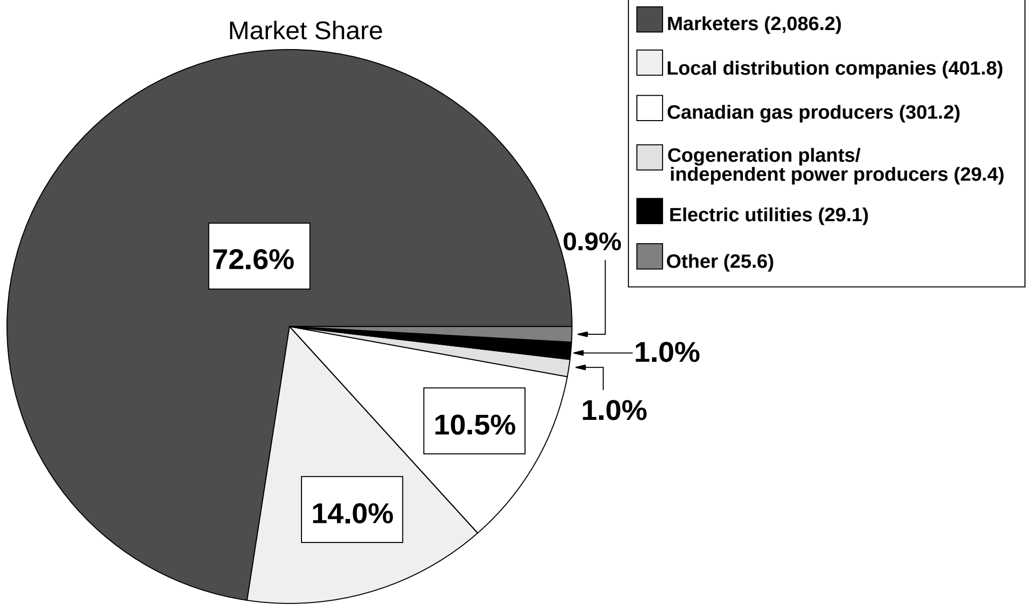
Long-term Canadian gas imports totaled 889 Bcf in 2001. Imports by Northwest Alaskan Pipeline Company were included in the "marketers" category; imports by combined gas/electric utilities were included in the "local distribution companies" category.

Figure 8 identifies, by class of importer, the market share of those who imported Canadian natural gas in 2001 under short-term authorizations. There were three principal types of short-term importers: marketers, LDCs, and Canadian gas producers or their U.S. affiliates. These three types of importers brought in over 97 percent of all short-term Canadian gas imports in 2001. In addition, other smaller categories also experienced growth in imports under short-term arrangements this year.

The following is a comparison of total short-term import volumes for 2001 and 2000: marketers (2,086.2 v. 1,553.6); Canadian gas producers (301.2 v. 188.5); industrial firms/other end-users (25.6 v. 25.8.); cogeneration plants/independent power producers (29.4 v. 13.1); and local distribution companies (401.8 v. 357.4). The only category that experienced a decrease in volumes this year was electric utilities (29.1 v. 35.2).

During 2001, 15 companies exported 157.5 Bcf of natural gas to Canada at an average price of $3.98 per MMBtu. This was an increase of 106 percent over the 2000 level of 76.3 Bcf. All of these export transactions were accomplished under gas sales contracts of two years or less. Like previous years, most of the gas exports to Canada occurred at the Michigan exit points of Detroit (35.1 Bcf) and St. Clair (113.0 Bcf), accounting for almost 94 percent of all gas exports to Canada during the year. However, imports at St. Clair this year increased by almost 282 percent compared to 2000 as a result of the startup and first full year of operation of the Vector Pipeline. In 2001, imports on the Vector Pipeline into Canada accounted for over 72 percent (81.5 Bcf) of the activity at St. Clair. [The 2001 natural gas exports of 157.5 Bcf reflect exports to Canada on an equity (sales) basis rather than on a custody (physical movements) basis. Total gas exports on a **custody only basis** equaled 155.8 Bcf for the year.]

Figure 8 **2001 CANADIAN NATURAL GAS IMPORTS UNDER SHORT-TERM IMPORT AUTHORIZATIONS BY TYPE OF IMPORTER**



Total short-term imports: 2,873 Bcf

Canadian Gas Marketed in California

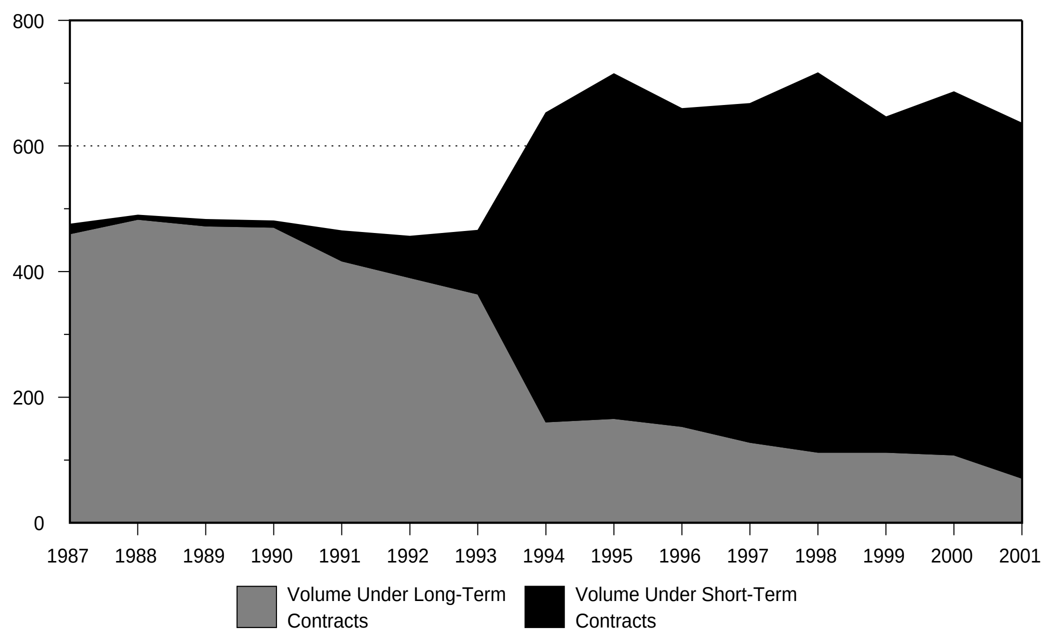
Figure 9 shows the volume of Canadian natural gas marketed in California under both short-term and long-term contracts during the past 15 years (1987-2001). Most Canadian gas sales to California consumers prior to 1993 were transacted under long-term supply contracts. However, beginning in 1994 and in every subsequent year, most Canadian gas volumes marketed in California were imported under short-term supply arrangements. During 2001, a total of 636.0 Bcf of Canadian gas was marketed in California. This represents a decrease of 50.2 Bcf, or 7.3 percent from the 2000 level of 686.2 Bcf. Approximately 89 percent of these volumes were imported under short-term supply contracts.

The average international border price for these imports was $4.77 per MMBtu in 2001, compared with $3.81 in 2000. In 2001, sales to California under short-term authorizations had an average international border price of $4.71 per MMBtu, compared to $3.84 in 2000. Sales under long-term authorizations had an average international border price of $5.23 per MMBtu, compared to $3.64 in 2000. In comparing 2001 and 2000, the international border price for short-term sales to California increased $0.87 per MMBtu or 22.6 percent, while the price under long-term sales increased $1.59 per MMBtu or 43.7 percent.

Figure 9

CANADIAN NATURAL GAS EXPORTS TO CALIFORNIA UNDER LONG-TERM AND SHORT-TERM CONTRACTS OVER THE PAST TWELVE YEARS: 1987 - 2001

(Bcf)



Notes: Long-term contracts are defined as supply contracts which are over two years in length and short-term contracts are defined as supply contracts which are two years or less in duration. The data are from filings submitted by natural gas importers to the Office of Fossil Energy.

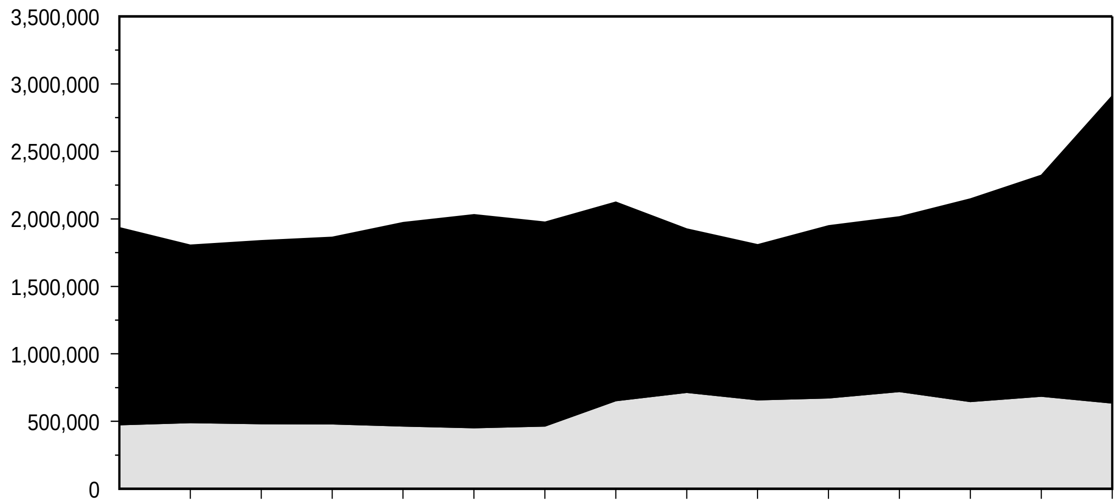
Based on preliminary figures published by EIA in its *Natural Gas Monthly* [DOE/EIA-130 (April 2002), Tables 15-19], total natural gas deliveries to California in 2001 decreased by 47.5 Bcf, or 2 percent from the 2000 level (2274.4 v. 2321.9 Bcf). The overall modest growth in gas demand during 2001 is in keeping with the supply and demand forecasts found in the *2000 California Gas Report (2000 Report)*. The *2000 Report*, which is the most current in a series of reports prepared by the California gas and electric utilities in accordance with a directive issued by the California Public Utilities Commission, forecasts that natural gas demand will grow at an annual average rate of 0.5 percent from 2000 to 2020.

EIA's preliminary demand breakdown by sector shows that gas consumption increased in the industrial sector but decreased in the residential, commercial and electric utility sectors. Gas consumption decreased in the industrial sector by 25.7 Bcf, or 2 percent over the 2000 level (1325.1 v. 1350.8 Bcf). There were additional declines in the electric utility and commercial sectors, which decreased 7.1 percent and 1.5 percent, respectively. Gas consumption in the residential sector remained constant (508.3 Bcf).

Figure 10 shows Canadian natural gas marketed in California as a percentage of total gas consumption for the State during the past 15 years (1987-2001). This figure merely displays the estimated annual market shares during this time period. Canada's share of the California gas market was 28.0 percent in 2001, compared to 29.6 percent in 2000, representing a drop of 5 percent.

Figure 10

CANADIAN NATURAL GAS MARKETED IN CALIFORNIA AS A PERCENTAGE OF TOTAL STATE GAS CONSUMPTION (MMCF)



	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Canadian Gas Supplies to CA	475,449	489,807	482,935	480,493	464,676	452,642	465,561	652,628	714,695	659,435	673,804	721,411	645,976	686,184	636,044
Total Gas Consumption	1,934,909	1,804,452	1,837,831	1,864,057	1,970,709	2,030,564	1,976,397	2,123,310	1,925,110	1,807,314	1,946,945	2,014,839	2,146,041	2,321,949	2,274,414
% Share of the CA Market	24.6	27.1	26.3	25.8	23.6	22.3	23.6	30.7	37.1	36.5	34.6	35.8	30.1	29.6	28.0

Sources: Consumption data for 1987 thru 2000 obtained from the ***Natural Gas Annual*** (DOE/EIA-0131); 2001 consumption figure is an FE estimate based on preliminary EIA data. Canadian natural gas supplies marketed in California are from reports filed by importers with FE.

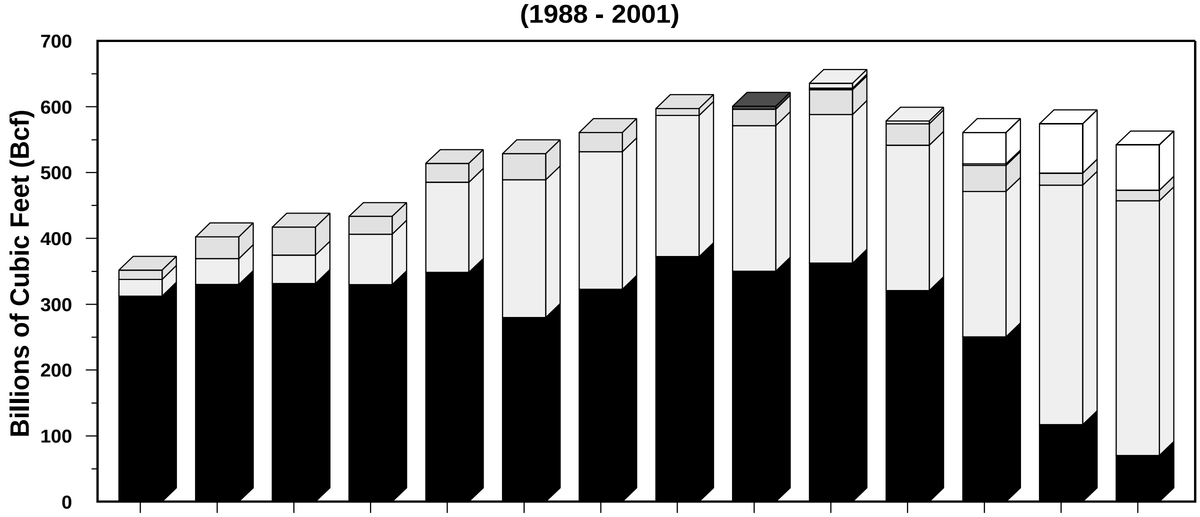
Natural Gas Imports Into New England

Natural gas use in New England traditionally has been limited due to the region's geographical location at the end of the domestic interstate transmission system. However, gas consumption in this region has increased dramatically over the past 14 years (1988 - 2001) due to ongoing improvements to and expansion of the gas pipeline infrastructure, particularly to facilities allowing additional imports from Canada. In spite of this, New England still lags behind the rest of the country in gas consumption. Natural gas represents about 19 percent of New England's primary energy consumption, compared to the national average of 23 percent [*2002 Statistical Guide* of the New England Gas Association (NEGA)]. As shown in **Figure 11**, gas consumption in New England had declined somewhat from 1998-1999, largely due to warmer than normal weather. In 2000, demand for natural gas rose modestly (by 13 Bcf), yet imports as percentage of total consumption grew to 79.6 percent. In 2001, total imports fell by 32 Bcf yet the percentage of total consumption climbed to an unprecedented 87 percent. This was due in large part to increased throughput on the Maritimes & Northeast Pipeline (Maritimes). The project, which became operational on the last day of 1999, has been a major improvement to natural gas pipeline infrastructure in the Northeast. The Maritimes transports gas from the Sable Island Offshore Energy Project in offshore Nova Scotia to markets in the Atlantic Provinces and New England. The pipeline, with a current capacity at the international border of about 440 MMcf per day, shipped about 425 MMcf per day to New England in 2001. This year, total Canadian volumes supplying this region increased by over 6 percent, while LNG volumes declined by over 8 percent.

Figure 11

Sources of Natural Gas Marketed in New England

(1988 - 2001)



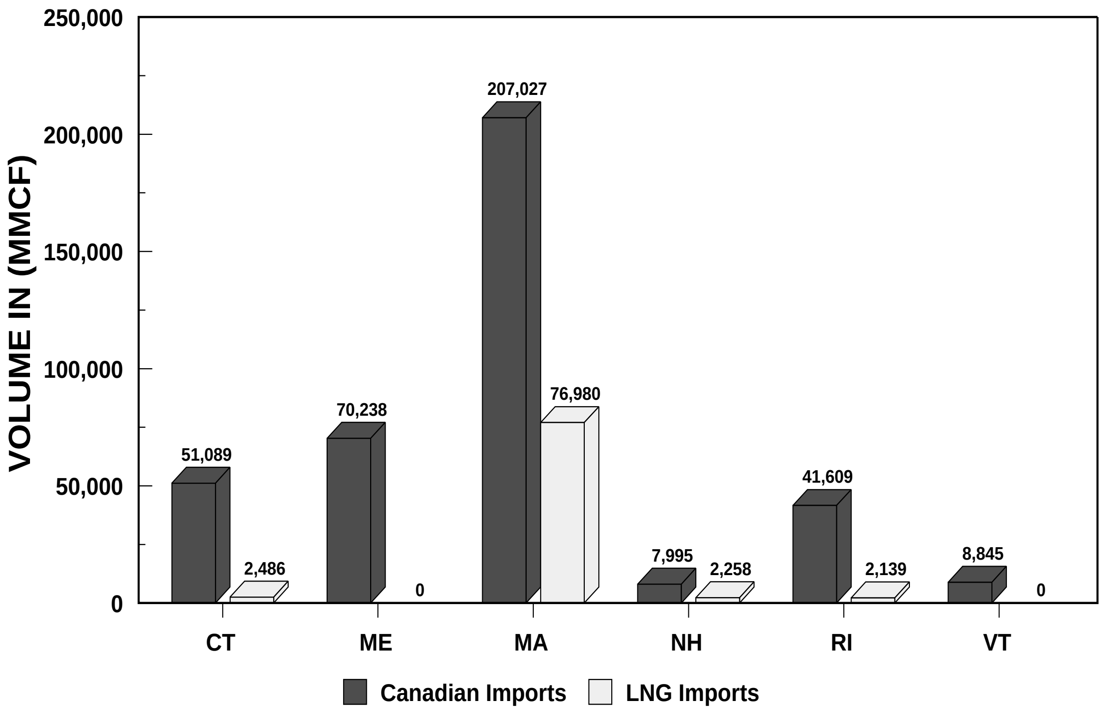
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Domestic Supplies	312.3	322.9	331.4	329.6	348.2	279.8	322.6	372.2	350.0	362.4	320.6	250.4	116.9	70.2
Canadian Supplies	25.4	39.3	43.1	76.6	137.0	209.1	209.0	214.6	221.1	225.8	220.8	220.9	363.9	386.8
Algerian Supplies	13.9	33.0	42.5	27.1	28.5	39.6	29.1	10.5	25.0	37.6	32.7	39.4	18.2	15.9
U. Arab Emirates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	2.4	0.0	0.0	0.0	0.0
Australian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	4.1	2.3	0.0	0.0
Trinidad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.9	75.0	69.1
TOTAL SUPPLIES	351.6	402.2	417.0	433.3	513.7	528.5	560.7	597.3	600.5	635.4	578.2	560.9	574.0	542.0
Imports as a % of Total Consumption	11.2	18.0	20.5	23.9	32.2	47.1	42.5	37.7	41.7	43.0	44.6	55.4	79.6	87.0

Sources: Natural gas consumption data from 1988 - 2000 came from EIA's *Natural Gas Annual* (DOE/EIA - 0131); 2001 consumption figure is an estimate from FE based on EIA data; Import data are derived from company filings made with FE.

Figure 12 shows the type and distribution of natural gas imports marketed during 2001 in the 6 states comprising New England. As shown, the majority of total imports, or 62.5 percent, was sold in Massachusetts. Specifically, 55 percent of the Canadian volumes supplying New England were marketed in Massachusetts. Furthermore, in 2001, over 90 percent of the LNG volumes imported into New England from Algeria and Trinidad were also marketed in Massachusetts. Canadian supplies delivered to markets in Maine increased over 112 percent compared to 2000 (70.2 Bcf v. 33.1 Bcf). In 2001, 54 percent of the volumes supplying New England were imported using long-term arrangements and 46 percent were imported using short-term arrangements.

Figure 12

NATURAL GAS IMPORTS SUPPLYING NEW ENGLAND - 2001



Source: Quarterly filings by natural gas importers to FE. These figures represent sales rather than imports; therefore, data differs slightly from import total.

Mexican Gas Trade

The last six graphs provide information on Mexican gas trade during 2001. **Figure 13** identifies the 13 firms that exported a record 140.4 Bcf of natural gas to Mexico in 2001, and indicates the market share of the three largest exporters. Pemex Gas was the year's largest exporter of natural gas to Mexico, increasing their market share substantially from last year (73% v. 56%). Although the number of exporters totaled 13 in 2001, Pemex Gas and the other top three gas exporters represented over 91 percent of the Mexican import market.

Figure 14 shows the four companies that imported 10.3 Bcf of Mexican gas into the U.S. this year. Volumes from Mexico entering the U.S. this year were down 11 percent from the 2000 level (10.3 v. 11.6 Bcf). In 2001, 29 percent of the gas entered the U.S. on the Tennessee Pipeline at Alamo, Texas, and 71 percent was brought in on the Texas Eastern Pipeline at Hidalgo, Texas. Mexican sources predict that exports to the U.S. will continue to grow even though Mexico is expected to be a net importer of gas during the foreseeable future.

Figures 15 and **16** provide monthly volume and price information with regard to natural gas exports to Mexico over the past three years (January 1999 - December 2001). Gas exports to Mexico this year were at a record high (140.4 Bcf). The 2001 annual weighted average price for these exports was $4.34 per MMBtu, an increase of 1.6 percent from last year's price of $4.27 per MMBtu and the highest since 1984. **Figures 17 and 18** show monthly volumes and prices for imports from Mexico from 1999 through 2001. Monthly prices rose to a record high in December 2000, when the weighted average price reached $8.73 per MMBtu.

FIRMS THAT EXPORTED NATURAL GAS TO MEXICO IN 2001

Figure 13

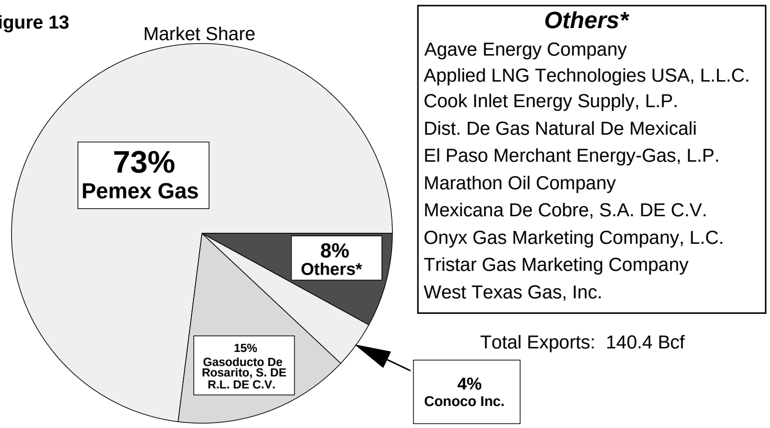


Figure 14

FIRMS THAT IMPORTED NATURAL GAS FROM MEXICO IN 2001

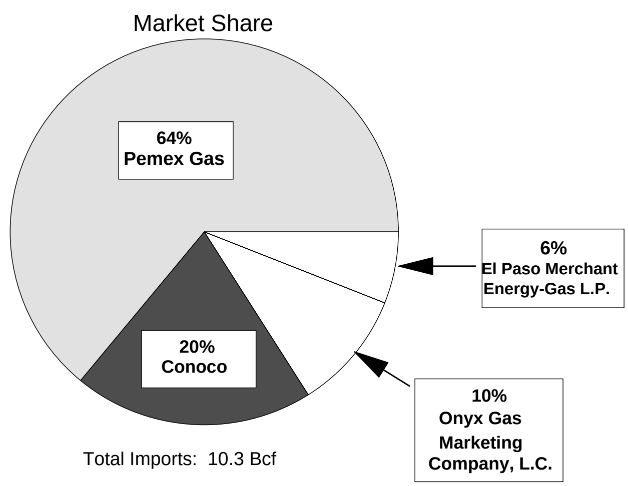
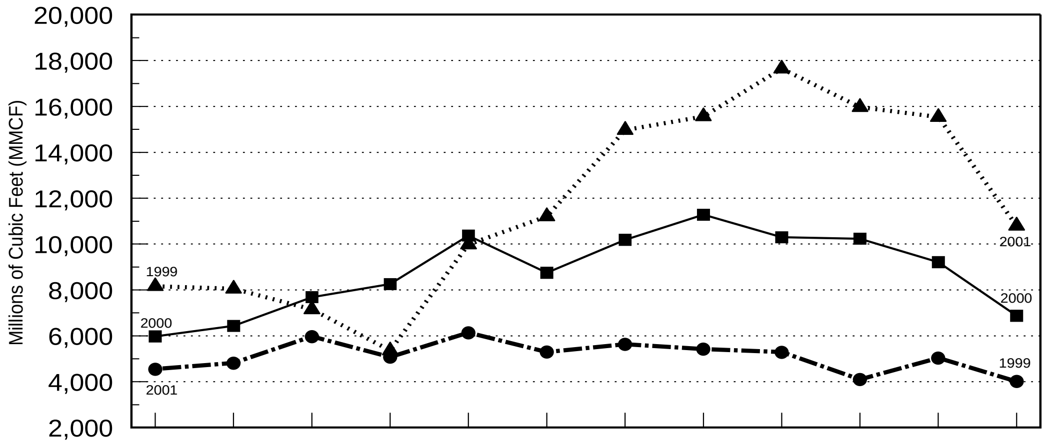


Figure 15

NATURAL GAS EXPORTS TO MEXICO

1999 - 2001

MONTHLY VOLUMES



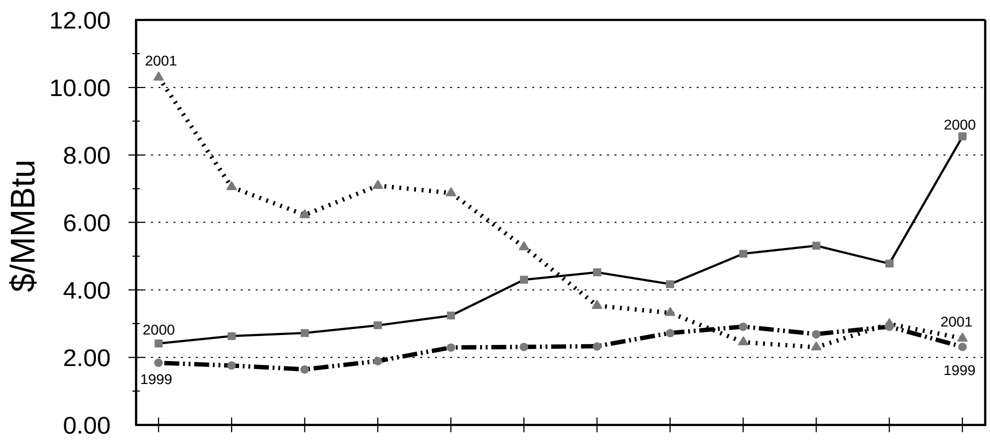
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	***TOTAL***
1999	4,548	4,809	5,971	5,068	6,133	5,296	5,632	5,419	5,289	4,099	5,031	4,009	***61,304***
2000	5,973	6,432	7,685	8,252	10,369	8,744	10,186	11,277	10,294	10,231	9,204	6,872	***105,519***
2001	8,158	8,052	7,152	5,360	9,975	11,206	14,971	15,563	17,644	15,969	15,537	10,797	***140,384***

Figure 16

NATURAL GAS EXPORTS TO MEXICO

1999 - 2001

WEIGHTED AVERAGE PRICE



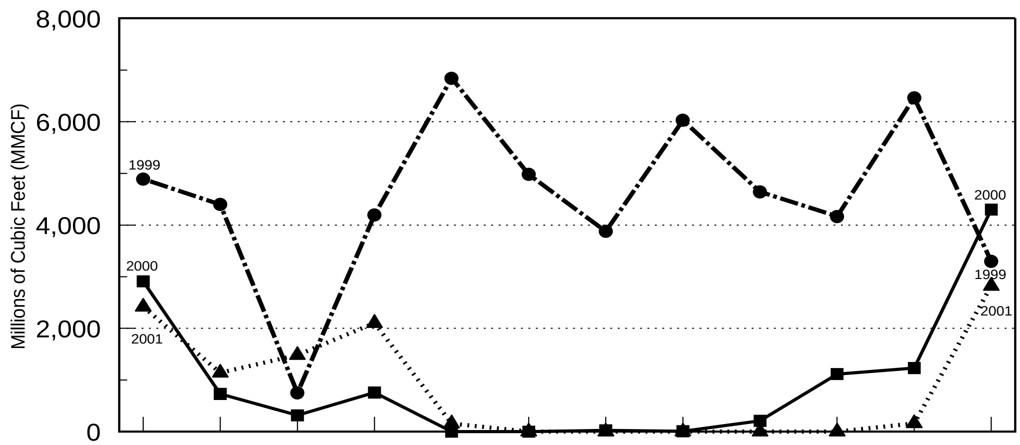
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
1999	1.84	1.76	1.64	1.89	2.29	2.31	2.33	2.72	2.91	2.69	2.91	2.31	2.29
2000	2.41	2.63	2.72	2.95	3.24	4.30	4.52	4.17	5.07	5.31	4.78	8.55	4.27
2001	10.30	7.05	6.22	7.09	6.87	5.27	3.53	3.32	2.45	2.30	2.99	2.56	4.34

Figure 17

NATURAL GAS IMPORTS FROM MEXICO

1999 - 2001

MONTHLY VOLUMES



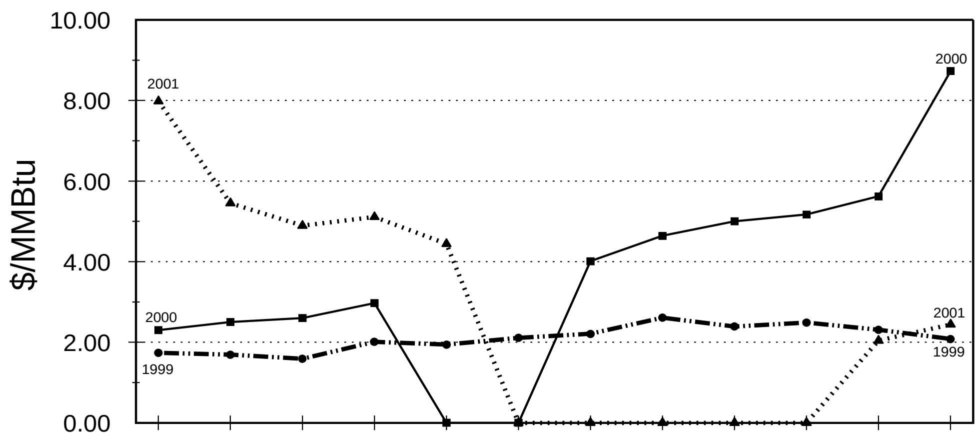
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	***TOTAL***
1999	4,891	4,397	751	4,193	6,843	4,978	3,876	6,028	4,643	4,168	6,463	3,297	***54,528***
2000	2,910	730	315	756	0	0	26	9	209	1,115	1,230	4,297	***11,601***
2001	2,416	1,139	1,482	2,102	157	0	0	0	0	0	160	2,821	***10,276***

Figure 18

NATURAL GAS IMPORTS FROM MEXICO

1999 - 2001

WEIGHTED AVERAGE PRICE



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	***AVG***
1999	1.74	1.69	1.59	2.01	1.94	2.11	2.21	2.61	2.39	2.49	2.31	2.08	***2.15***
2000	2.30	2.50	2.60	2.97	0.00	0.00	4.01	4.64	5.00	5.17	5.62	8.73	***5.43***
2001	7.98	5.45	4.89	5.11	4.44	0.00	0.00	0.00	0.00	0.00	2.04	2.44	***5.00***