QUARTERLY FOCUS:

CHANGES IN THE WAY CANADIAN GAS IS MARKETED IN CALIFORNIA

- The state of California is a major consumer of natural gas, second only to the state of Texas. The Energy Information Administration (EIA) reported that in 1993 natural gas deliveries to California totaled 1,877 billion cubic feet (Bcf), or over 10 percent of all natural gas deliveries to consumers in the country [EIA, *Natural Gas Monthly* (November 1994, Table 22)].

- For over 30 years, Canada has been a major supplier of natural gas to California. During 1993, Canada supplied about 480 Bcf, or 25.6 percent of total natural gas deliveries to the state.

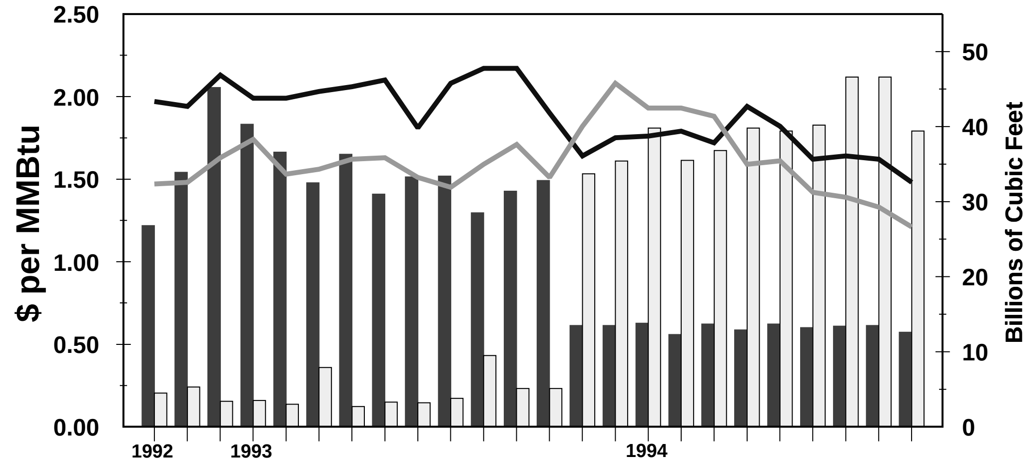
- In 1993, Canadian natural gas sales to California represented about 21 percent of all Canadian gas exports to the United States. California was by far the largest state market for Canadian gas; the state of New York was a distant second with 249 Bcf, or 11 percent of the Canadian gas export market.

- The 480 Bcf of Canadian natural gas exported to the California market in 1993 at a weighted average price of $1.95 per MMBtu, resulted in revenues of about $936 million to the Canadian natural gas industry.

- The California Public Utilities Commission (CPUC) over the past several years has implemented new policies and regulations designed to promote a more open and competitive gas marketplace. As a result of these CPUC initiatives, the Federal Energy Regulatory Commission's (FERC) Order 636, and the addition of new interstate pipeline capacity, there have been significant changes in the way in which Canadian gas is sold to the California market.

Figure 1

Canadian Natural Gas Exports to California Prices and Volumes under Long-Term and Short-Term Contracts



	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
LT-Price	1.97	1.94	2.13	1.99	1.99	2.03	2.06	2.10	1.81	2.08	2.17	2.17	1.90	1.64	1.75	1.76	1.79	1.72	1.94	1.82	1.62	1.64	1.62	1.48
ST-Price	1.47	1.48	1.63	1.74	1.53	1.56	1.62	1.63	1.51	1.45	1.59	1.71	1.51	1.82	2.08	1.93	1.93	1.88	1.59	1.61	1.42	1.39	1.33	1.21
LT-Vol	26.8	33.9	45.2	40.3	36.6	32.5	36.3	31.0	33.3	33.4	28.5	31.4	32.8	13.5	13.5	13.8	12.3	13.7	12.9	13.7	13.2	13.4	13.5	12.6
ST-Vol	4.5	5.3	3.4	3.5	3.0	7.9	2.7	3.3	3.2	3.8	9.5	5.1	5.1	33.7	35.4	39.8	35.5	36.8	39.8	39.4	40.2	46.6	46.6	39.4

- **Figure 1** shows the volume and price of Canadian natural gas delivered to California over the past 24 months (October 1992 through September 1994). The monthly volumes and prices are broken down by the type of import authorization used in bringing these supplies into the country. Imports under long-term authorizations are those supplies purchased under contracts which are longer than two years in length, and short-term authorizations are for those imported supplies purchased under contracts of two years or less.

- With the implementation of FERC Order 636 and the start-up of the joint pipeline expansion project of Pacific Gas & Electric Company (PG&E) and Pacific Gas Transmission Company (PGT) on November 1, 1993, PGT, the largest importer of Canadian natural gas for over 30 years ceased being an importer and became a transportation-only pipeline. **Figure 1** shows that the termination of PGT's long-term import contract caused the transposition of import volumes from long-term to short-term contracts. Prior to November 1993, most Canadian gas supplies were sold in California under long-term contracts; subsequently, most Canadian gas sales have been made under short-term contracts.

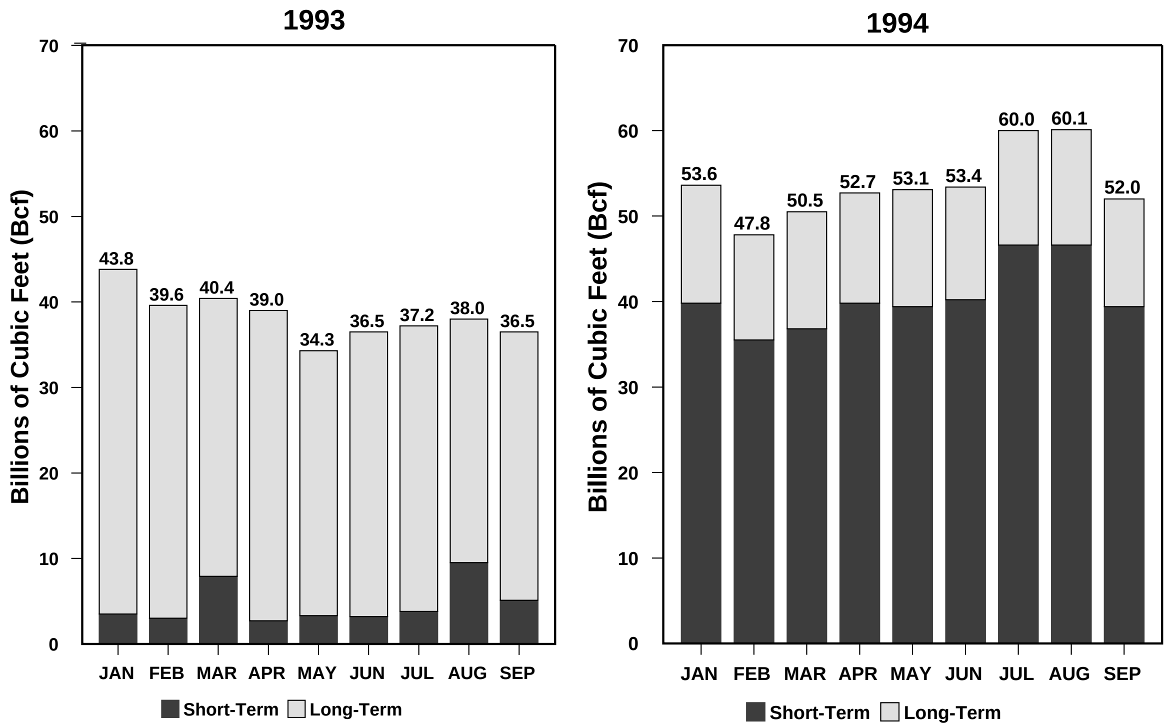
- **Figure 1** also shows a general decline in the price differential between long-term and short-term contracts during the past 12 months. During the 1993/94 winter peak demand months, the price of short-term imports actually exceeded those prices under long-term contracts. However, the price difference between these two types of contracts during off-peak periods has declined from about $0.50 per MMBtu in 1993, to approximately $0.25 per MMBtu in 1994. Most of this narrowing of prices is the result of the 11 new long-term contracts which became operational in November 1993. These contracts contain market-responsive pricing provisions which are closely tied to either current gas prices in supply areas, such as Alberta and the U.S. Southwest, or to the cost of alternative fuels available in the market area. Therefore, prices under these new long-term contracts track more closely with the spot market.

- **Figure 1** shows the phenomenal increase in imports under short-term import authorizations since November 1993. Most of these imports were made under firm purchase contracts, as opposed to interruptible, best-efforts, contracts.

- The number of short-term importers serving the California market has grown almost as fast as the volumes. For example, in October 1993 there were 16 short-term importers marketing gas in California; while in September 1994, there were 35 short-term importers selling gas to California.

Figure 2

CANADIAN NATURAL GAS MARKETED IN CALIFORNIA
1993 vs. 1994
(1st 9 Months)

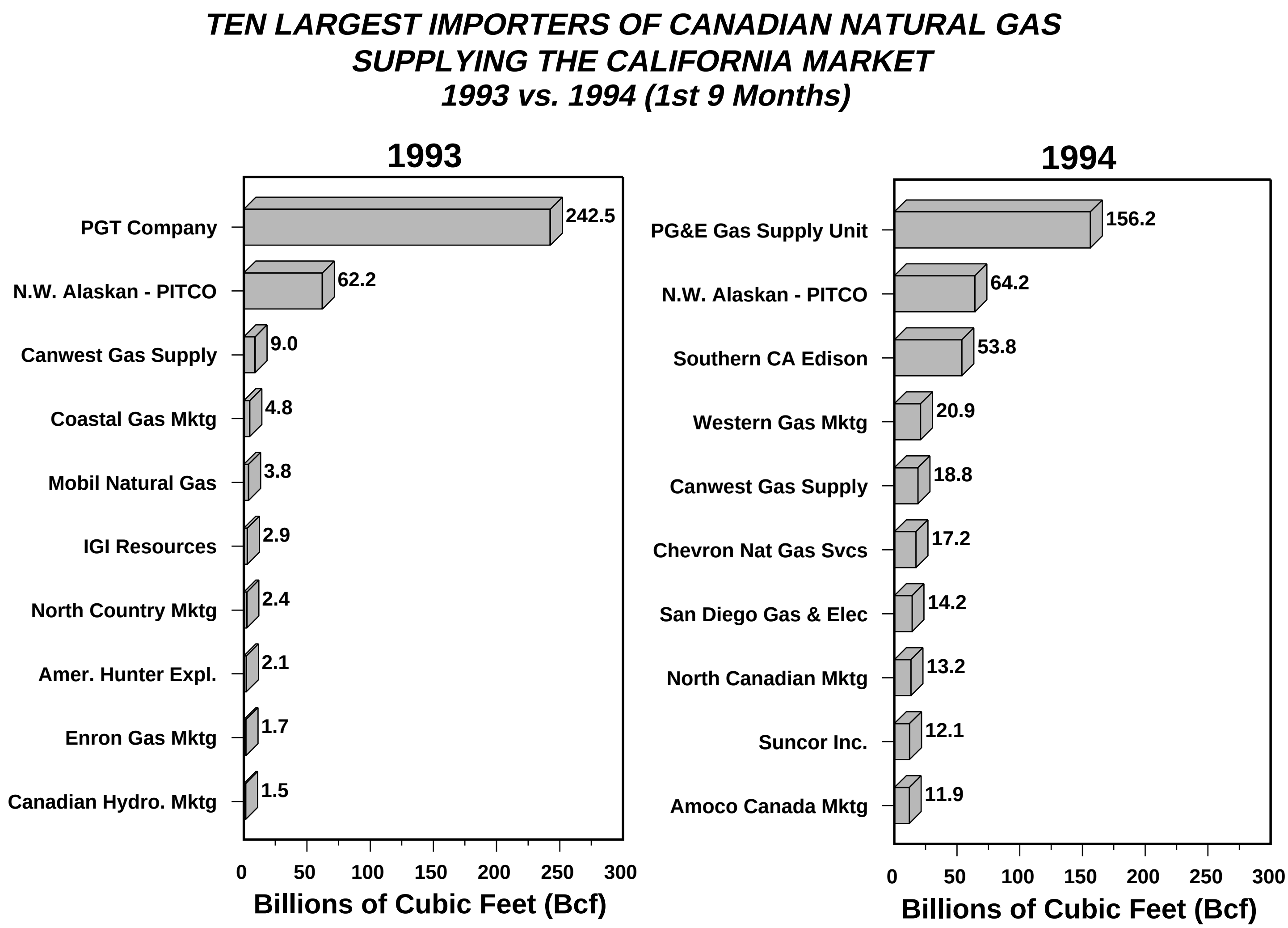


- **Figure 2** compares the volume of Canadian natural gas marketed in California during the first 9 months of 1993 with the first 9 months of 1994. **Figure 2** also illustrates the dramatic change in the way Canadian gas is sold in California. During 1993, the vast majority of the imports were purchased under long-term import authorizations; in 1994, the reverse is true.

- Canadian natural gas marketed in California during the first 9 months of 1993 totaled 345.3 Bcf. During the same period in 1994, importers reported to OFP that they had marketed 483.2 Bcf. This represents an increase of almost 40 percent, or 137.9 Bcf from the 1993 level. In other words, Canadian gas sales to California during the first 9 months of 1994 exceeded the total Canadian sales to California for all of 1993.

- The increase in Canadian natural gas sales to California during the first 9 months of 1994 represents about 62 percent of the total increase in Canadian gas exports to the United States during this period. Data filed with OFP by natural gas importers indicate that Canadian natural gas imports during the first 9 months of 1994 grew by 222 Bcf over the 1993 level (1867 v. 1645).

Figure 3

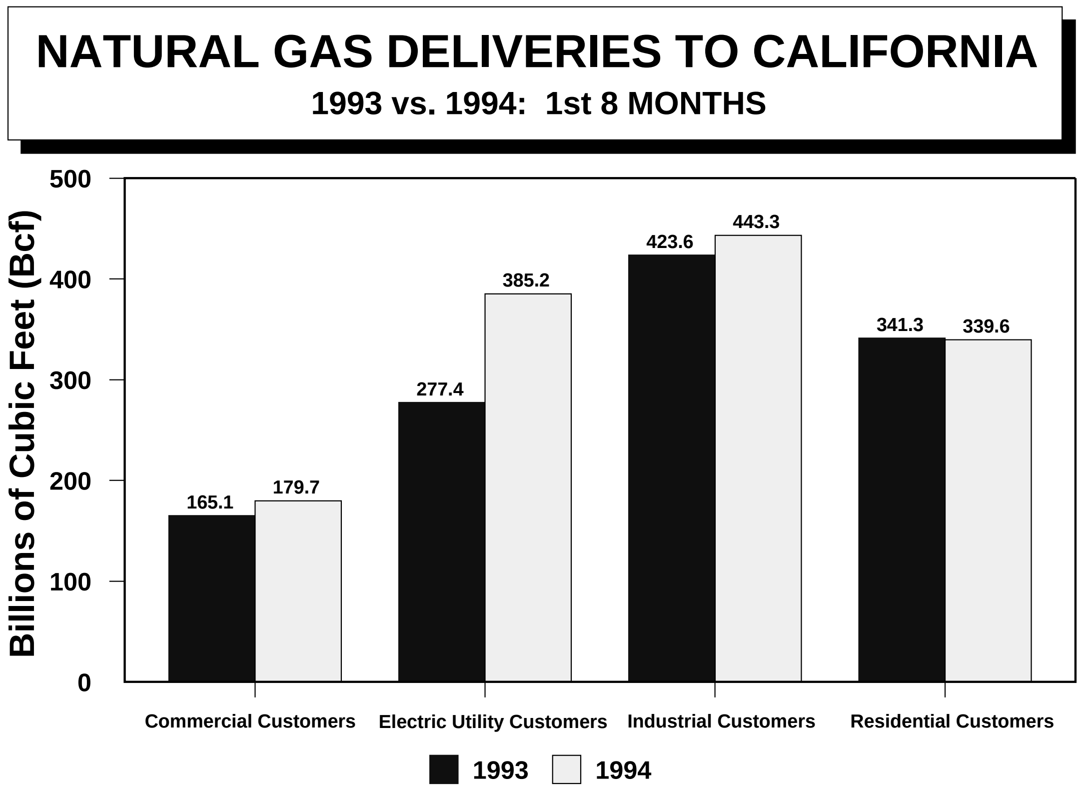


- **Figure 3** lists the ten largest importers of Canadian natural gas destined for the California during the first nine months of 1993 and 1994.

- As shown, the main difference between 1993 and 1994 importers is the absence of PGT as an importer in 1994. PGT, the principal interstate transporter of Canadian natural gas to the California market is no longer an importer. PGT had been the dominant supplier to California ever since its system became operational in December 1961.

- Today, importers serving the California market fall into two categories: gas and electric utilities and marketers. There currently are no interstate pipelines or industrial users importing gas into the state. For the first 9 months of 1994, gas and electric utilities (including municipalities) directly or indirectly imported 292.2 Bcf of gas, or about 60.5 percent of the Canadian gas sold in California. The remaining volume imported during this time period, 191 Bcf, or 39.5 percent, was brought in by natural gas marketers, most of them directly affiliated with Canadian natural gas producers.

Figure 4



Source: EIA's Natural Gas Monthly (November 1994), Tables 18 thru 22.

- **Figure 4** compares, by class of customer, the total natural gas deliveries to California for the first 8 months of 1993 and 1994. EIA reports that for the first 8 months of 1994, total natural gas deliveries to California increased by 140.4 Bcf over last year's level (1,347.8 v. 1,207.4).

- During the first 8 months of 1994, EIA reports that total natural gas deliveries to all states increased by 357.9 Bcf. Thus, the increase in gas deliveries to California this year (140.4 Bcf) represents over 39 percent of the total incremental growth in the United States during this period.

- While total natural gas deliveries to California have increased 11.6 percent over the 1993 level during this 8 month time period, EIA is forecasting a growth rate of 3.4 percent in total U.S. demand for natural gas in 1994, compared with 1993 [EIA, *Short-Term Energy Outlook* (November 1994)]. Therefore, the data indicate that the growth rate for natural gas use in California during the first 8 months of 1994 is running well over 3 times the forecasted 1994 national average growth rate.

- As shown in **Figure 4**, gas deliveries to California's residential customers in 1994 have declined slightly from last year's level, but deliveries to the other 3 consumer sectors have increased substantially. The growth in natural gas deliveries to electric utilities and industrial customers is consistent with the gas demand forecasts recently published in the *1994 California Gas Report*. The Report, which is prepared annually by California gas and electric utilities, states that 1994 demand for natural gas in the electricity and industrial sectors was expected to increase due to the lower than normal availability of hydroelectricity, and the expected growth in industrial output.

- Figure 4 shows that natural gas deliveries to electric utilities increased dramatically from 277.4 Bcf in 1993 to 385.2 Bcf in 1994. This in an increase of 107.8 Bcf, or almost 39 percent above last year's level. Substantial increases in gas deliveries to commercial and industrial sectors also were experienced during this 8 month time period. Deliveries to commercial customers and industrial customers rose 8.8 and 4.6 percent, respectively.

- **Figures 2 and 4**, taken together, indicate that Canadian natural gas suppliers are increasing their market share in California. **Figure 4** shows that through August 1994, natural gas deliveries to California have increased by 140.4 Bcf; however, based on data filed by importers with OFP as shown in **Figure 2**, the lion's share of the increased deliveries (122.4 Bcf, or 87 percent) are coming from Canadian sources.

- Comparing the first 8 months of 1993 with the first 8 months of 1994, Canada's share of the California gas market has grown from 25.6 to 32 percent.