



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D C 20548

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OFFICE OF THE COMPTROLLER
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PCED-4-142

AUG 14 1984

The Honorable James J. Florio
Chairman, Subcommittee on Commerce,
Transportation and Tourism
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

A March 21, 1984, letter from the Chairman, Subcommittee on Energy Conservation and Power; the Chairman, Subcommittee on Fossil and Synthetic Fuels; and you asked us to investigate several questions about home heating oil prices. We met with your office on April 9, 1984, and agreed to explore what data were available from the Department of Energy's Energy Information Administration (EIA) and private-sector sources to address selected issues regarding heating oil. These issues related to heating oil inventory levels, price differences among various areas of the country, refinery pricing practices, and the extent and causes of last winter's price increases. We met again with your office on June 25, 1984, to explain what we had found and to discuss what further contribution we could make.

Our objective, following the April 9 meeting, was to determine what data were available to address the issues. As agreed with your office, we did not directly contact any refiners or heating oil distributors. We did contact federal agency and trade association representatives and, where possible, obtained data and studies from them. Specifically, we contacted

- two federal agencies--EIA and the Department of Justice's Antitrust Division;¹
- three trade associations--the American Petroleum Institute, the National Oil Jobbers Council, and the National Petroleum Refiners Association; and
- a Department of Energy advisory committee--the National Petroleum Council.

¹ We contacted the Department of Justice because it began a preliminary investigation of heating oil price increases in the Northeast during the winter of 1983-84. As of July 25, 1984, the matter's investigation remained open.



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We also identified several private-sector data sources that report certain heating oil price information.

At the June 25 meeting we explained that available information did not permit us to fully address the issues, explaining that the types of information needed could be obtained only by directly contacting refiners and heating oil distributors. Because of the difficulties with and magnitude of such an endeavor, we expressed reluctance to attempt to collect such data. We proposed continuing our efforts by analyzing existing data, but your office said that such analysis would not meet your needs.

We were asked, instead, to summarize (1) the types of information that would help explain heating oil pricing issues, (2) the difficulties involved in collecting such data and why we hesitate to undertake such an effort, and (3) available information on heating oil price differences among states. This letter provides the information requested.

ADDITIONAL INFORMATION WOULD HELP EXPLAIN PRICING

The data we reviewed on heating oil inventories, sales, and prices do not fully reflect developments in the heating oil market--which can change rapidly and which can vary substantially among areas of the country. Key limitations to the data include the following:

1. The regularly reported inventory data cover only primary inventories on a comprehensive basis (essentially, those held by refiners), but not secondary inventories (those held by distributors) and tertiary inventories (those held by consumers). Secondary and tertiary inventories are important because they can affect distributors' decisions on quantities to buy and sell and prices to pay and charge and consumers' decisions on quantities to buy and prices to pay.

2. Inventory data are reported on a state basis, but not for smaller geographic units, such as metropolitan areas. This limitation is important because overall inventory data for New Jersey, for example, would not reflect possible differences in inventory levels between metropolitan areas within the state--such as Camden and Newark. Having more detailed data would facilitate an analysis of developments affecting smaller geographic units, such as specific metropolitan areas.

3. Sales and price data are generally available only monthly, not daily or weekly.² This limitation is important because a

On a monthly basis, EIA reports refiners' and distributors' state-level heating oil sales and prices, and the American Petroleum Institute reports refiners' state-level heating oil sales. On a weekly basis, both EIA and the Institute report some national data on refiners' sales, but do not report state-level data on refiners' sales.

monthly average figure cannot reflect changes within that month. Having more detailed data would facilitate an analysis of developments during a particular week, for example.

Although data on inventories, sales, and prices generally reflect activity in the heating oil market, they do not record all market developments. Furthermore, these data do not necessarily explain why these events occurred and how decisions were made by refiners, distributors, and consumers.

Other types of information would be needed to understand the basis for decisions, but such information may not be readily available and, even if obtained, could be difficult to quantify. One type is information on agreements between refiners, distributors, and consumers. Such agreements cover the mechanisms for setting refiners' and distributors' prices, obligations to meet their customers' needs, and related considerations. In a prior report³ on heating oil, we noted that such agreements helped explain a distributor's supply and pricing decisions. Another type of information relates to companies' pricing and profit objectives, which could influence their responses to supply availability and to their competitors' prices.

DIFFICULTIES IN OBTAINING ADDITIONAL INFORMATION

Because the information we reviewed did not convincingly explain heating oil pricing and inventory patterns, we concluded that such information would have to be obtained directly from refiners and distributors. However, collecting data from refiners and distributors on inventories, sales, prices, agreements, and objectives--as discussed above--would, in our opinion, present a number of difficulties. Because of these difficulties--as discussed below--we are reluctant to undertake such a data-collection effort. Furthermore, even if we were to undertake such a project and succeed in collecting company-specific data, the resulting data might not provide a convincing explanation of heating oil price and inventory patterns.

Difficulties in obtaining company-specific data include the following:

1. We believe such an undertaking is likely to last for months. This is especially significant because we were told that you need the results no later than October 1984. Our experience has shown that a questionnaire or similar standardized data-collection instrument is the most efficient way of collecting consistent and meaningful data from numerous respondents. Steps to be taken to improve this mechanism include designing a questionnaire

Washington, D.C., Area Home Heating Oil Supplies Adequate But At Escalating Prices (EMD-80-42, Jan. 22, 1980).

based on terms that will be readily and consistently understood by potential respondents and that is not overly burdensome; pretesting the questionnaire; refining it, based on the pretest; administering the questionnaire; following up on incomplete responses; encoding the responses; and analyzing the results.

2. Such an effort--likely involving both questionnaires and in-person interviews--can be expected to be resource-intensive; this has been our experience in locality-specific studies of heating oil and natural gas prices.⁴ Preparing each of these reports involved several months of detailed data gathering and analysis. Moreover, we found that circumstances differed considerably from one locality to another. Thus, we believe a major effort would be required to analyze activities in enough areas to provide a broad representation of heating oil market developments.

3. Refiners and distributors are likely to have an interest in the outcome of a study of heating oil prices and their answers may reflect their biases. We would have considerable difficulty in independently validating their responses.

4. Similarly, conflicting responses--for example, from a refiner and distributor who deal with each other--may be difficult to reconcile.

5. Some companies may not readily cooperate in providing data. Some potentially useful data--such as pricing and profit objectives--may be sensitive and companies may, therefore, be reluctant to provide such information.

6. Finally, some potential respondents--especially smaller firms--may not maintain sufficiently detailed records that would permit them to respond. This could lead to a relatively low response rate, which could seriously weaken the usefulness of the survey results.⁵

In summary, we are reluctant to undertake a major data-collection effort because, first, it would be difficult to meet

⁴See the report cited previously and Natural Gas Price Increases in Kansas City (GAO/RCED-84-77, Feb. 10, 1984).

⁵In preparing the January 1980 report cited, we sent a questionnaire to 30 heating oil dealers serving the Washington, D.C., area. Eight responded in writing to the questionnaire. We also obtained information from another 26 dealers by means of in-person interviews. This information did not include any of the data requested on our questionnaire. Some of the 26 dealers told us that they did not have the resources or time to respond in writing. We did not obtain any data from the four dealers who did not respond.

your need for a report by October; second, a substantial amount of our staff resources would be needed to collect and analyze data; and third, the resulting data might not enable us to reach any conclusions about price and inventory patterns.

PRICE DIFFERENCES AMONG STATES

Finally, we were asked to summarize available data on differences among states in prices paid by residential heating oil customers. EIA collects and publishes monthly average prices per gallon paid by such customers. These data are summarized for the nation and for the 24 states for which EIA publishes data. (See encl. I.)

We compared reported prices by state from three standpoints: (1) the state average annual price relative to the national average annual price for the years 1978-83, (2) the state average monthly price relative to the national average monthly price for the 1983-84 heating season (Oct. 1983 through Mar. 1984), and (3) the change in the state monthly average price between October 1983 (the first month of the heating season) and February 1984 (the month of peak prices for the U.S. total).

Relatively consistent differences existed among the selected states in annual average prices for 1978-83; that is, some states generally had above-average prices, while others were generally below average. For example, customers in New Jersey and New York paid a price equal to or greater than the national average each year. Customers in Indiana paid more than the national average in 2 of the years and less than the national average in 4 of the years. Customers in Illinois paid less than the national average each year.

Monthly prices during the 1983-84 heating season also showed relatively consistent differences among states. New York customers paid an above-average price each month; customers in New Jersey paid an above-average price in 3 of the months, the same as the average in 1 month, and a below-average price in 2 of the months. Customers in Illinois and Indiana paid a below-average price each month.

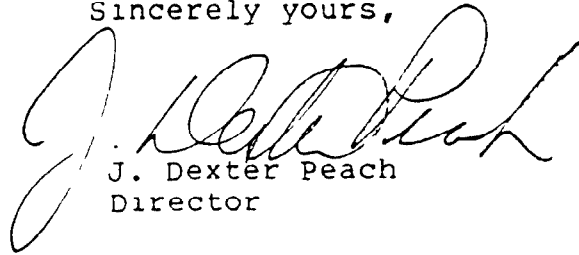
The U.S. average price increased 11 cents during the 1983-84 heating season. Larger-than-average increases were experienced in some states, including New Jersey and New York (both 14 cents). Smaller-than-average increases were experienced in other states, including Indiana (6 cents) and Illinois (5 cents). Four states experienced no change or a decrease.

Other than our limited survey work, we did not find any studies that had explained these price differences among

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We are sending similar letters to the Chairman, Subcommittee on Energy Conservation and Power, and the Chairman, Subcommittee on Fossil and Synthetic Fuels, both of the House Committee on Energy and Commerce.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "J. Dexter Peach". The signature is written in black ink and is positioned above the printed name and title.

J. Dexter Peach
Director

Enclosure

Sales Prices of No. 2 Heating Oil to Residences for Selected States
and U.S. Total for Selected Time Periods

State ¹	Annual average		1983-84 heating season										Increase (decrease) from 10-83 to 2-84 ^c
	1978	1979	1980	1981	1982	1983	10-83	11-83	12-83	1-84	2-84	3-84 ^b	
-----cents per gallon ^d -----													
U.S. total	49	70	97	119	116	108	106	106	107	112	117	111	11
Alaska	55	68	98	118	117	109	106	106	106	104	106	106	-
Connecticut	50	72	98	122	118	109	104	104	106	116	122	115	17
Delaware	48	68	95	117	111	106	104	104	106	115	118	110	15
District of Columbia	51	74	103	127	124	117	113	114	115	122	129	123	15
Idaho	44	62	92	110	110	102	100	100	100	100	101	97	2
Illinois	46	69	96	115	111	100	101	101	100	105	106	102	5
Indiana	48	73	100	118	114	101	102	101	101	106	107	101	6
Maine	49	69	96	120	116	103	103	102	102	110	113	103	10
Maryland	49	70	98	121	117	110	109	109	109	116	122	116	13
Massachusetts	49	71	98	121	118	109	106	106	108	114	120	113	14
Michigan	48	71	98	118	114	106	106	105	107	107	108	105	2
Minnesota	48	72	100	118	115	103	105	104	104	107	103	106	(2)
New Hampshire	50	72	100	124	117	104	103	102	104	114	118	109	15

ENCLOSURE I

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State ³	Annual average		1983-84 heating season									Increase (decrease) from 10-83 to 2-84 ^c	
	1973	1974	1980	1981	1982	1983	10-83	11-83	12-83	1-84	2-84		3-84 ^b
-----cents per gallon ^d -----													
New Jersey	50	71	98	122	117	108	105	105	107	114	120	112	14
New York	50	71	98	123	120	112	110	110	111	118	124	117	14
Ohio	47	69	92	113	110	101	100	101	102	105	106	102	6
Oregon	46	68	97	111	112	104	101	102	102	100	101	101	-
Pennsylvania	49	70	96	118	114	106	103	104	105	113	117	111	14
Rhode Island	51	73	101	124	120	110	108	109	109	114	118	112	10
Vermont	51	72	102	125	120	113	109	110	110	117	119	115	10
Virginia	49	70	98	120	118	109	105	105	105	111	118	113	13
Washington	49	70	101	116	118	109	106	106	106	104	104	105	(2)
West Virginia	46	65	92	115	109	101	101	100	102	108	110	105	9
Wisconsin	45	67	92	109	108	101	102	100	100	102	103	102	1

^aEIA publishes data for only 24 states.

^bMarch 1984 data are preliminary and subject to revision.

^cComputed from unrounded data. Difference shown may not compute due to rounding.

^dEIA reports these data to the nearest tenth of a cent. For clarity of presentation, we rounded each price to the nearest whole cent. Prices are shown exclusive of taxes.

Source: Energy Information Administration.