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**Final Technical Report
State Heating Oil and Propane Program
1991-92 Heating Season**

Minnesota Department of Public Service

May 29, 1992

The following discussion summarizes the survey approach and results of the Department of Public Service's survey of retail fuel oil and propane prices during the 1991-92 heating season.

The semi-monthly phone surveys were conducted in cooperation with the U. S. Department of Energy's State Fuel Oil and Propane Program, which coordinated surveys of heating fuel prices by 25 eastern and midwest states. This federal/state program serves as a method for fast collection, analysis, and dissemination of information on current residential prices. No other information source meets needs for timely retail price information over the course of the heating season.

Definitions of Surveyed Prices

The definitions used for the price surveys followed definitions established by DOE. For both propane and fuel oil, prices were for a typical residential customer before cash discount (also referred to as the charge price). Respondents were also asked the amounts of their cash discounts.

The definition for propane poses additional problems because prices per gallon vary by the customer's consumption or tank size. Propane retailers were asked to provide a price for a customer that consumes about 1000 gallons per year.

The surveyed price for propane was also to include tank rental. Some retailers raised the question of customers who own their own tanks, but residential customers typically rent their tanks from the retailer.

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Comparison of DOE and DPS Prices

The table below compares average prices computed by DOE for Minnesota and average prices used by the Minnesota Department of Public Service. As the table shows DOE results were consistently several cents/gallon higher than prices used by MN/DPS.

	Fuel Oil			Propane		
	DOE Price	MN/DPS Price	DOE - MN/DPS	DOE Price	MN/DPS Price	DOE - MN/DPS
Oct 1	1.17	1.16	.01	.99	.94	.05
Oct 15	1.24	1.24	.00	1.02	.96	.06
Nov 5	1.24	1.23	.01	.97	.94	.03
Nov 19	1.24	1.22	.02	.94	.92	.02
Dec 3	1.22	1.19	.03	.94	.90	.04
Dec 17	1.12	1.09	.03	.97	.85	.02
Jan 7	1.09	1.04	.05	.87	.86	.01
Jan 21	1.12	1.09	.03	.89	.85	.04
Feb 4	1.04	1.01	.03	.82	.79	.03
Feb 18	.98	.95	.03	.80	.76	.04
Mar 4	.91	.90	.01	.75	.72	.03
Mar 18	.89	.85	.04	.76	.72	.04

The difference in the two prices is caused by different approaches to weighting the sampled prices. DOE used a weighted average based on the respondents' sales volumes, while several considerations led us to use an unweighted average for the MN/DPS price.

In reviewing the DOE fuel oil and propane data, we noticed that three or four dominant retailers in each sample reported higher than average prices. Thus, the weighting of the very largest respondents could have a significant impact on the overall average.

The above MN/DPS prices were computed from larger samples that included DOE respondents. When unweighted averages were computed for the smaller DOE sample, the prices were generally no more than one cent above the MN/DPS sample.

Comparison of Minnesota and Adjacent States

The figures on the following page compare average for Minnesota and nearby states. The Minnesota prices are the MN/DPS averages discussed in the previous section.

As Figure 1 illustrates, average retail fuel oil prices in Minnesota stayed within three cents/gallon of the average for midwestern states participating in the DOE survey process. Minnesota's average wholesale price tracked the midwest average even more closely.

Since North and South Dakota conducted surveys of propane prices, Minnesota average propane prices can be compared to the average for adjacent states. As Figure 2 illustrates, Minnesota's average retail price remained about five cents/gallon above the average for states bordering Minnesota. Prices in Minnesota and Wisconsin were consistently higher than prices in Iowa, North Dakota and South Dakota.

Secondary Inventory Surveys

Fuel oil retailers participating the prices survey were also asked to provide their total storage capacity for #2 and #1 fuel oil. With each new survey the respondents were asked for an estimate of their current storage. The survey results showed that average distributor inventories (also referred to as secondary inventories) generally stayed within 30 to 40 percent of capacity. Inventory levels did not vary dramatically among the four survey regions.

In the event of serious supply concerns, current data on secondary inventory levels would be a very useful indicator of whether distributors have any reserve in their inventories.

Figure 1

Wholesale & Retail F.O. Prices in MN & Midwest (IL, IN, IA, MI, MN, OH, WI)

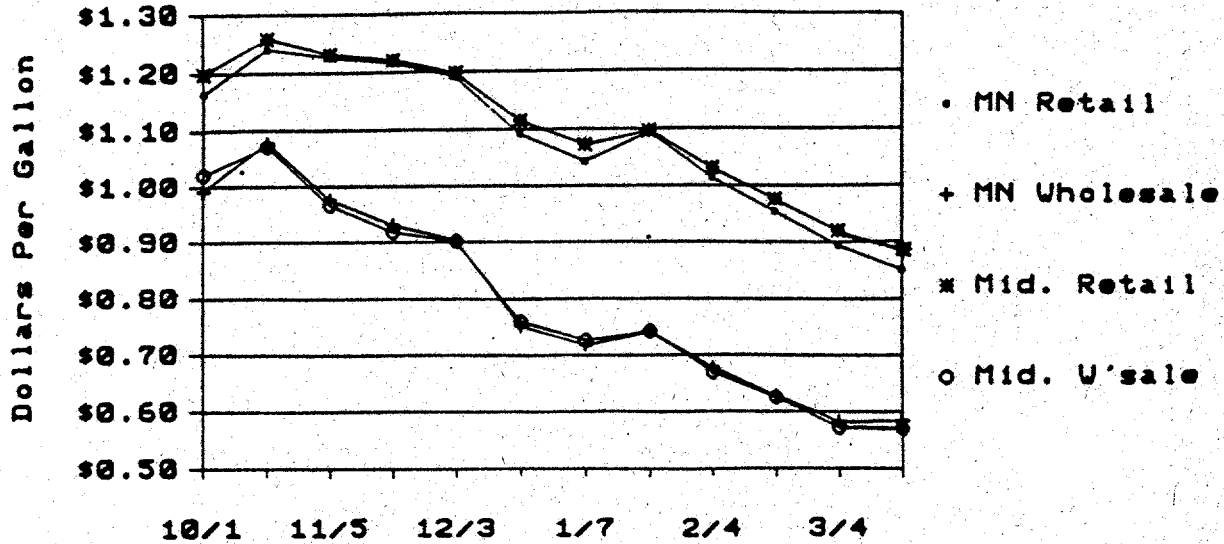
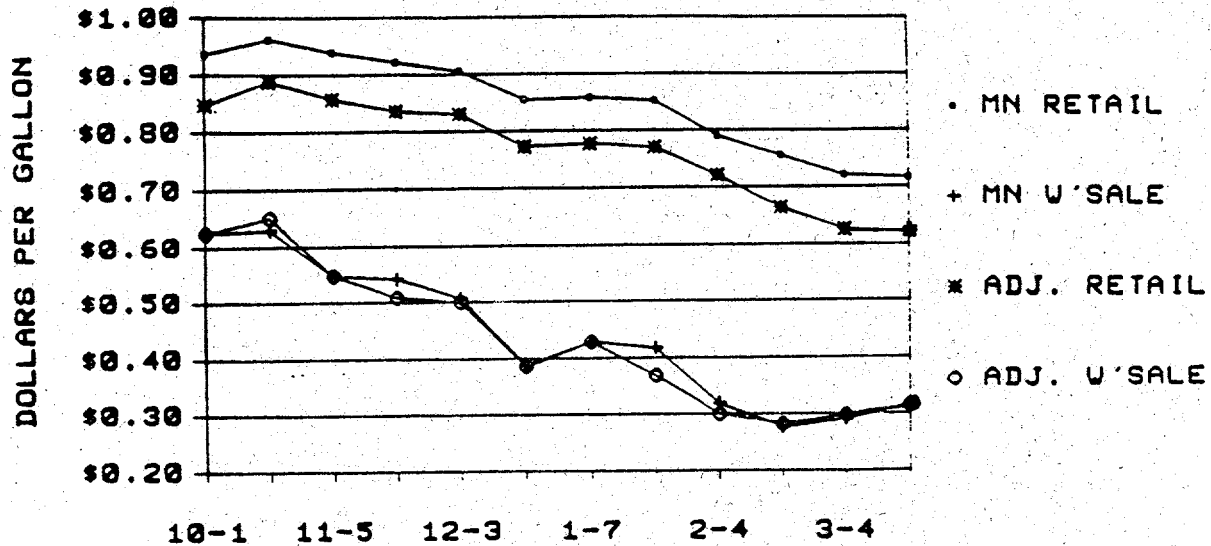


Figure 2

WHOLESALE & RETAIL PROPANE PRICES IN MN & ADJACENT STATES (WI, IA, ND, SD)



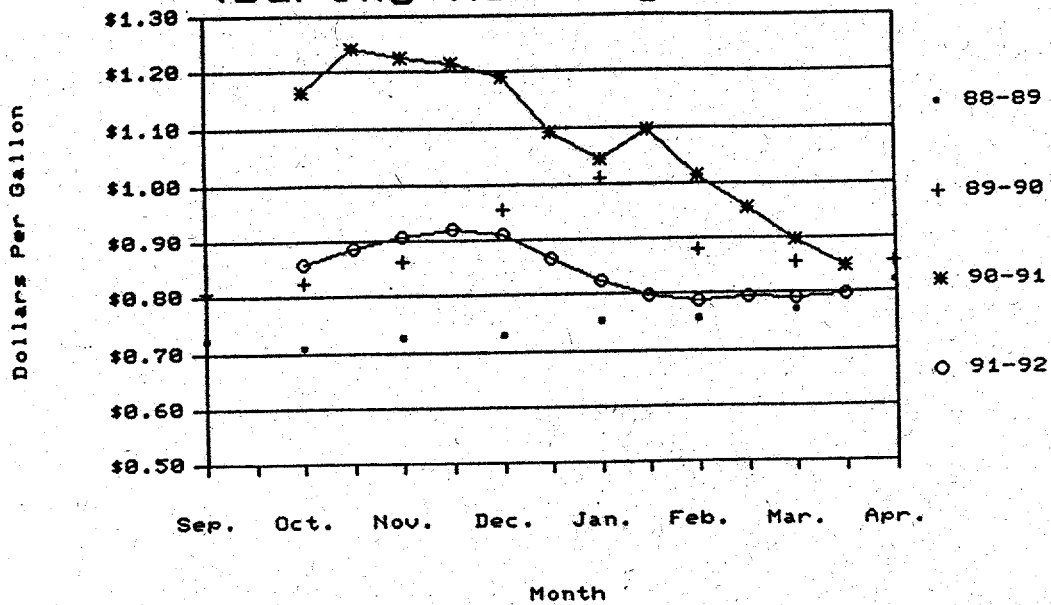
SUMMARY OF 1991-1992 #2 FUEL OIL
PRICES IN MINNESOTA

	AVERAGE RETAIL PRICE	HIGH	LOW	AVERAGE TERMINAL PRICE	AVERAGE RETAIL MARGIN	AVERAGE CASH DISCOUNT	AVERAGE INVENTORIES
10-7-91	\$0.860	\$0.999	\$0.789	\$0.658	\$0.202	\$0.04	35.62%
10-21-91	\$0.888	\$0.999	\$0.799	\$0.702	\$0.186	\$0.04	37.84%
11-4-91	\$0.907	\$0.999	\$0.820	\$0.705	\$0.202	\$0.04	33.64%
11-18-91	\$0.922	\$1.039	\$0.849	\$0.683	\$0.240	\$0.04	31.73%
12-2-91	\$0.910	\$1.039	\$0.820	\$0.633	\$0.278	\$0.04	27.88%
12-14-91	\$0.867	\$1.039	\$0.719	\$0.542	\$0.325	\$0.04	35.10%
1-6-92	\$0.824	\$1.039	\$0.679	\$0.500	\$0.324	\$0.04	28.60%
1-20-92	\$0.798	\$0.999	\$0.669	\$0.525	\$0.273	\$0.04	36.99%
2-3-92	\$0.789	\$0.999	\$0.649	\$0.532	\$0.257	\$0.04	28.37%
2-17-91	\$0.794	\$0.999	\$0.679	\$0.567	\$0.227	\$0.04	34.02%
3-2-92	\$0.791	\$0.999	\$0.679	\$0.554	\$0.237	\$0.04	31.85%
3-16-92	\$0.798	\$0.999	\$0.699	\$0.567	\$0.231	\$0.04	31.97%

SUMMARY OF 1991-1992 PROPANE
PRICES IN MINNESOTA

	AVERAGE RETAIL PRICE	HIGH	LOW	AVERAGE TERMINAL PRICE	AVERAGE RETAIL MARGIN	AVERAGE CASH DISCOUNT
10-7-91	\$0.704	\$0.880	\$0.550	\$0.397	\$0.307	\$0.03
10-21-91	\$0.726	\$0.919	\$0.550	\$0.399	\$0.327	\$0.03
11-4-91	\$0.738	\$0.919	\$0.550	\$0.419	\$0.319	\$0.03
11-18-91	\$0.754	\$0.989	\$0.530	\$0.419	\$0.335	\$0.03
12-2-91	\$0.760	\$0.939	\$0.570	\$0.404	\$0.356	\$0.03
12-16-91	\$0.759	\$0.920	\$0.570	\$0.344	\$0.415	\$0.03
1-6-92	\$0.741	\$0.920	\$0.560	\$0.287	\$0.454	\$0.03
1-20-92	\$0.738	\$0.920	\$0.560	\$0.288	\$0.450	\$0.03
2-3-92	\$0.724	\$0.920	\$0.560	\$0.281	\$0.443	\$0.03
2-17-91	\$0.710	\$0.870	\$0.560	\$0.286	\$0.425	\$0.03
3-2-92	\$0.710	\$0.870	\$0.560	\$0.290	\$0.420	\$0.03
3-16-92	\$0.705	\$0.869	\$0.550	\$0.290	\$0.416	\$0.03

Prices of #2 Distillate (During Heating Season)



MN FUEL OIL INVENTORY

