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June 2, 2017

The Honorable Michael D. Thibodeau, President
MAINE STATE SENATE
3 State House Station
Augusta, Maine 04333

The Honorable Sara Gideon, Speaker
MAINE HOUSE OF REPRESENTATIVES
2 State House Station
Augusta, Maine 04333

The Honorable Amy Volk, Senate Chair
The Honorable Ryan Fecteau, House Chair
COMMITTEE ON LABOR, COMMERCE, RESEARCH AND ECONOMIC DEVELOPMENT
The Honorable David Woodsome, Senate Chair
The Honorable Seth Berry, House Chair
COMMITTEE ON ENERGY, UTILITIES AND TECHNOLOGY
100 State House Station
Augusta, Maine 04333

Re: *2017 Attorney General Report to the Legislature Under the Petroleum Market Share Act*

Dear President Thibodeau, Speaker Gideon, Senators Volk and Woodsome, and Representatives Fecteau and Berry:

I am pleased to make this report in accordance with the Petroleum Market Share Act (P.M.S.A.), 10 M.R.S. § 1677. The P.M.S.A. requires the Attorney General to make a report to the Legislature describing the concentration of retail outlets in the State, including a recommendation as to whether additional legislation is needed to further limit or curtail the activity of refiners operating retail outlets.

Enclosed is a report describing concentration of retail outlets in the State. The report, which is based on data collected from wholesalers of both motor fuel oil and home heating oil, includes maps depicting relative

concentration in designated markets throughout the State. This report is also available on the Attorney General's website at: http://www.maine.gov/ag/docs/PMSA%20Report%202015-2016.pdf.

Since no refiners of petroleum products operate retail outlets in this State, we recommend no legislation to limit or curtail such operations.

I appreciate this opportunity to provide this information and hope it is useful.

Sincerely,

JANET T. MILLS
ATTORNEY GENERAL

JTM/cmm
Enclosure
cc: Grant T. Pennoyer, Executive Director, Maine State Legislature
John R. Barden, Director, Maine State Law and Legis. Reference Library
Jamie Py, President, Maine Energy Marketers Association

STATE OF MAINE
OFFICE OF THE ATTORNEY GENERAL

Janet T. Mills, Attorney General

PETROLEUM MARKET SHARE ACT

REPORT OF THE ATTORNEY GENERAL
TO THE MAINE LEGISLATURE
PURSUANT TO 10 M.R.S. § 1677

FOR THE REPORTING PERIOD
2015 – 2016

May 2017

Retail Petroleum Outlets Concentration
10 M.R.S. § 1677
May 2017

I. INTRODUCTION

This Report is provided by the Attorney General to the Legislature pursuant to Maine's Petroleum Market Share Act ("PMSA"), 10 M.R.S. § 1677. As required by the statute, the Report describes the concentration of retail petroleum outlets. The concentration levels described in this Report reflect conditions in Maine as of the end of May 2016. The statute also requires the Attorney General to make "a recommendation to the Legislature as to whether additional legislation is needed to further limit or curtail the activity of refiners operating retail outlets." The Attorney General does not recommend any legislative changes at this point.

The Report focusses on markets for home heating oil and motor fuel oil. The geography of petroleum markets is local. In the case of home heating oil, the market may encompass an urban area, or a segment of a county. Motor fuel markets tend to be smaller, in some instances limited to a single neighborhood or one side of a busy street. For continuity purposes, our analyses retain the longstanding geographic market proxies developed by the Attorney General in the 1990s when the PMSA reporting first began. The state has been divided into 33 home heating oil ("HHO") markets and the 16 counties have been used as proxies for motor fuel oil ("MFO") markets.

The Maine Attorney General receives data annually from home heating oil and motor fuel oil wholesalers reflecting the annual gallons supplied to each home heating oil and motor fuel retailer located in Maine. Also a requirement of the PMSA, the data enable us to determine the number of retail competitors and their percentage market shares within the pre-defined geographic markets.[1] 10 M.R.S. § 1673. Those figures in turn allow us to calculate where each of the HHO and MFO markets falls on a concentration index widely used by federal and state antitrust agencies to assess competitive conditions (usually in the context of proposed mergers and acquisitions). The Appendices to the Report show the concentration levels, and corresponding maps depicting those levels, for each pre-defined market. The tables in the Appendices also show concentration numbers for the same markets for the past ten years for comparison purposes.

II. LEVELS OF CONCENTRATION

A. Methodology

The methodology employed by the Maine Attorney General to assess levels of concentration in Maine's retail petroleum markets, as reflected in this Report, is essentially the same methodology used by the U.S. Department of Justice, the Federal Trade Commission and other state Attorneys General in evaluating the legality of a given merger or acquisition under applicable

[1] It should be noted that the Attorney General collects neither retail nor wholesale price information under the PMSA. Moreover, the data collected from individual wholesalers, which is confidential by statute, is aggregated and not identifiable by wholesaler or retailer in this report. 10 M.R.S. § 1675.

antitrust law. The Maine Attorney General has employed a similar analysis enforcing Maine's merger law for more than thirty years. 10 M.R.S. § 1102-A.

The most important factor affecting competition in a particular market is the level of concentration (how many sellers and the size of their market shares). The data the Maine Attorney General receives annually from home heating oil and motor fuel oil wholesalers reflecting the annual gallons supplied to each home heating oil and motor fuel retailer located in Maine allow us to calculate market shares of retailers within a defined geographic area based on their sales volumes.

1. Market Definition. The first step in a concentration analysis is to determine the relevant product and geographic markets. This Report focusses on two product markets, namely home heating oil and motor fuel oil. Home heating oil is defined as "#2 fuel oil sold for heating residential, industrial or commercial space or water." 10 M.R.S. § 1672(3). Motor fuel "means internal combustion fuel sold for use in motor vehicles" as more fully defined in 29 M.R.S. § 101(42). 10 M.R.S. § 1672(4).

Determining geographic markets for this Report is less straightforward. For the purposes of this Report, we are not looking to identify the geographic area within which two merging companies operate, as we would if we were reviewing a proposed merger. Rather, we are attempting to carve the state into a series of geographic markets to obtain a very broad snapshot of competition in the petroleum industry and trends across the entire state.

The Maine Attorney General has taken different approaches to defining geographic markets for home heating oil and for motor fuel oil. At the time the Attorney General initially began preparing these reports, we conducted a series of interviews with a number of persons knowledgeable in the petroleum industry in Maine. On that basis, we divided the state into thirty-three separate geographic markets intended to fairly approximate economic and competitive circumstances relative to home heating oil sales. Motor fuel markets are generally more local. However, since our task here is not to analyze a specific local merger, but rather to portray broad trends in levels of concentration across the state, we use county-wide markets. Markets are not static, of course, and economic and competitive factors over time may suggest slightly different approaches to appropriate markets at this point in time. Nonetheless, we have retained the original geographic markets to be able to compare concentration trends over time within consistent geographic areas.

Importantly, these geographic market depictions are not used to analyze individual mergers or acquisitions in Maine. Each individual merger or acquisition proposal will require an evaluation of the unique competitive and economic circumstances in the areas within which both companies operate.

2. Herfindahl-Hirschman Index. Market concentration is a well-accepted tool for evaluating competitiveness within identified markets. As a general rule, the fewer the competitors, and the higher those competitors' market shares, the more concentrated (and less competitive) the market. Federal and state antitrust agencies (including the Maine Attorney General)

employ the Herfindahl-Hirschman Index ("HHI") to measure market concentration.[2] The HHI concentration index is arrived at by squaring the market shares of all the competitors in a given market. This simple mathematical device expresses the insight that market power increases exponentially in proportion to market share. Federal antitrust guidelines used by the Maine Attorney General in merger enforcement indicate that a market with an index of 1000 or less should be viewed as unconcentrated (and therefore likely to function competitively).[3] A market with an index between 1000 and 1800 is described as moderately concentrated; while any index over 1800 is termed highly concentrated.[4] A market in the highly concentrated category is subject to a high degree of market power, unless the effects of high concentration are mitigated by other factors, such as ease of entry for a new competitor.

Our analysis of levels of concentration in home heating oil markets tracks the categories reflected in federal guidelines. Thus, a home heating oil market with an index under 1000 is referred to as "unconcentrated," an index in the 1000-1800 range is described as "moderately concentrated," and an index in the 1800-2500 range is termed "highly concentrated." Markets above 2500 points are referred to as "extremely concentrated."

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[2] DOJ/FTC Horizontal Merger Guidelines (rev. ed. 2010)(available at https://www.justice.gov/atr/horizontal-merger-guidelines-08192010).

[3] For example, ten firms with market shares of 10% each would yield an index of 1000 (10 squared x 10).

[4] For example, a market comprising five firms with market shares of 20% each would yield an index of 2000 (20 squared x 5).

For our designated motor fuel markets we have adjusted the concentration index to reflect the fact that the large, county-level geographic markets inevitably understate levels of concentration. Thus, for motor fuel, an index below 500 is "unconcentrated," 500-1000 is "moderately concentrated," and 1000-1800 is "highly concentrated." The "extremely concentrated" designation is reserved for motor fuel markets above 1800.

Appendix A lists the geographic markets within which we measure concentration at the retail sales level for both home heating oil and motor fuel oil. The HHO markets map depicts the relative concentrations in the 33 previously designated home heating oil geographic markets, based on the latest analysis of data from wholesalers. The MFO markets map depicts the relative concentrations reflected in the latest analysis of county-wide retail motor fuel markets. Again, these geographic market depictions are not used to analyze individual mergers or acquisitions in Maine. The tables in Appendix B contain the latest HHI concentration analyses within both home heating oil and motor fuel markets, as well as concentration comparisons in those markets over the last ten reporting years.[5]

B. Overview - Retail Home Heating Oil Markets.

Overall, concentration levels in Maine's home heating oil markets have remained relatively consistent. Ten out of thirty three markets are in the un- to moderately concentrated zone. While the ten counties are not precisely the

[5] Careful observers of these PMSA reports will note that this Report has fewer tables. We have condensed the concentration data into one table each for HHO and MFO to reduce redundancy and potential confusion. We continue to include ten years of data for comparison purposes.

same ten counties in those less concentrated zones in the previous report, there is considerable overlap. The Portland, Augusta and Bangor areas, as well as the areas bordering the northern portion of Frenchman's Bay, remain the most competitive. Also similar to the last Report, Northern and Downeast Maine, as well as the northwestern and southern tip of the state remain among the most concentrated, or least competitive. And, again, the midcoast area between Brunswick and Waldoboro is also extremely concentrated, though the coastal area on either side is only moderately concentrated.

While, in general, concentration levels have remained very consistent, there are several markets that have shifted significantly. Three markets have improved from extremely concentrated to moderately concentrated, namely Markets 19, 28 and 31 (Franklin, southern Oxford and northern York Counties). On the other hand, Market 7 (slightly north of Bangor) and Market 13 (the Midcoast between Waldoboro and Northport) have deteriorated from moderately concentrated to extremely concentrated.

C. Overview - Retail Motor Fuel Oil Markets.

The concentration levels for the county-wide motor fuel markets have shifted more significantly than those levels associated with home heating oil markets. Far more counties appear to be highly or extremely concentrated than for the prior report period. Franklin, Kennebec, and Hancock appear to be the most competitive counties. One possible explanation for the seemingly significant shift in concentration levels was the discovery of several reporting gaps and analysis errors in recent reports. Unfortunately, those corrections

have revealed a less competitive landscape for motor fuel than we had previously thought, though it is difficult to determine whether there has actually been a significant recent change in the competitive landscape given the data issues mentioned above.

III. RECOMMENDATION

The Attorney General is required to recommend whether additional legislation is needed to further limit or curtail the activity of refiners operating retail outlets. We do not recommend any changes on that basis, since there are no refiner retail operations in Maine in either home heating oil or motor fuel oil. Further, we recommend no changes to the law because it works relatively well for the Office as a starting point in merger enforcement. The ready availability of sales data from wholesalers enables the Attorney General to evaluate competitive conditions surrounding proposed mergers and acquisitions much more quickly in the petroleum industry than we would be able to if the data were not required under the PMSA. This makes merger enforcement in this area more nimble for the Attorney General, and less burdensome for companies wishing to engage in merger or acquisition transactions in the Maine petroleum industry.

* * *

APPENDIX A

HHO MARKETS

1. St. John Valley
2. Ashland/Presque Isle
3. Houlton
4. Lincoln
5. Woodland/Calais
6. Cherryfield/Machias
7. Old Town
8. Ellsworth
9. Bangor
10. Dover-Foxcroft
11. Pittsfield/Newport
12. Belfast
13. Rockland
14. Mid Coast
15. Augusta
16. Waterville
17. Skowhegan
18. Jackman/Greenville
19. Farmington
20. Jay
21. Lewiston/Auburn
22. Bath/Brunswick
23. Portland
24. Gray
25. Paris
26. Rumford/Rangeley
27. Bethel
28. Bridgton
29. Limerick
30. Sanford
31. Biddeford/Saco
32. York
33. Mt. Desert

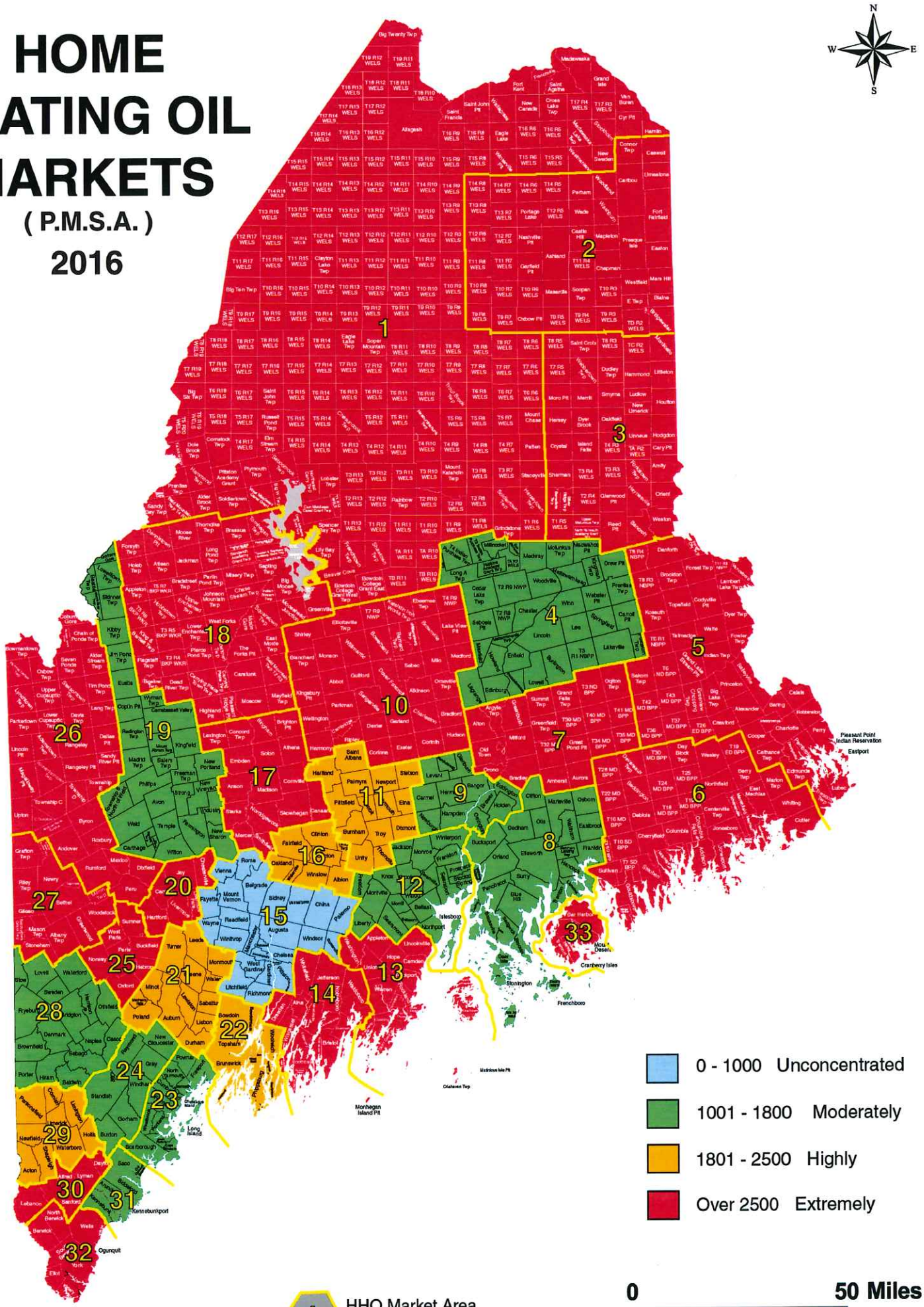
MFO MARKETS

Androscoggin
Aroostook
Cumberland
Franklin
Hancock
Kennebec
Knox
Lincoln
Oxford
Penobscot
Piscataquis
Sagadahoc
Somerset
Waldo
Washington
York

HOME HEATING OIL MARKETS

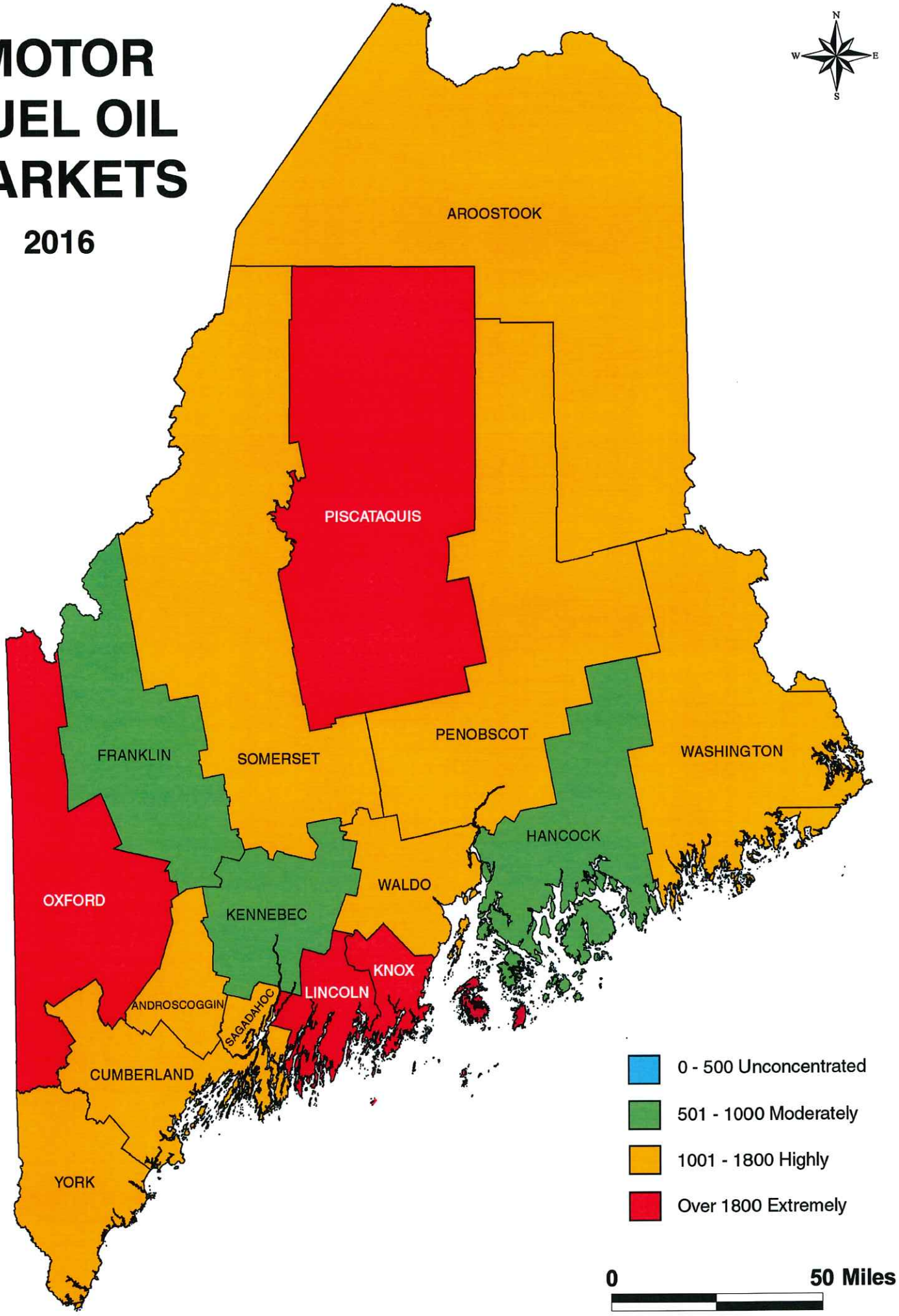
(P.M.S.A.)

2016



MOTOR FUEL OIL MARKETS

2016



APPENDIX B

HHI DATA TABLES

HHO & MFO Concentration by Market Area 2007 to 2016

2016
HHO Market Concentration

Market Area	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg	Median
01. St. John Valley	3544	3717	3736	3624	3388	3889	3834	4134	3434	3242	3654	3639
02. Ashland /Presque Isle	3064	2902	3147	3041	2905	2962	3618	3707	3348	3351	3205	2934
03. Houlton	3187	3064	4200	4074	3762	3338	6568	3917	3725	3168	3900	3550
04. Lincoln	2590	2106	1767	1502	1431	1576	1776	1594	1584	1490	1742	1504
05. Woodland /Calais	6238	7176	4507	2759	2893	3353	4491	3167	3071	3154	4081	3123
06. Cherryfield / Machias	3481	3532	3616	5040	3002	2918	2568	3198	2444	2625	3242	2960
07. Old Town	1924	2091	1886	1892	2025	2427	2680	1725	1564	2519	2073	2226
08. Ellsworth	2438	2095	1954	1668	1139	1894	1812	1664	1536	1487	1769	1517
09. Bangor	676	1075	1156	1030	3046	1524	4153	1701	1063	1741	1717	2285
10. Dover-Foxcroft	3950	3716	3447	3042	3152	4528	3838	3680	3791	2819	3596	3840
11. Pittsfield / Newport	2392	2323	1826	1834	1777	2215	2167	2216	3687	1947	2238	1996
12. Belfast	1330	2115	1994	1962	1634	1916	1230	1100	1398	1007	1569	1775
13. Rockland	1506	1547	1576	1889	1947	2340	2088	1728	1721	2647	1899	2144
14. Midcoast	2273	1900	1931	3001	2525	3101	2886	3366	3163	2755	2690	2813
15. Augusta	1187	978	987	1010	1449	1144	995	849	857	909	1037	1297
16. Waterville	1565	1473	1621	1647	1865	1758	1881	2190	1950	2231	1818	1812
17. Skowhegan	1537	2480	3536	2688	2255	2397	2485	1863	2162	2525	2393	2326
18. Jackman /Greenville	2352	3043	3298	5694	6328	5938	5441	5450	8681	8002	5423	6133
19. Farmington	2917	2817	2594	2220	3796	3618	2305	2531	2702	1654	2715	3707
20. Jay	4642	2912	5382	6205	5000	5200	5128	5913	5190	3282	4885	5100
21. Lewiston /Auburn	1246	1137	1500	1249	1139	2327	2013	1846	2212	2247	1692	1733
22. Bath / Brunswick	2657	2279	2056	3191	2505	1661	2361	4064	2258	2214	2525	2083
23. Portland	536	1284	1212	964	1140	1261	1234	1420	1772	1520	1234	1201
24. Gray	1574	1635	1974	2321	2397	2868	3922	1585	3061	1791	2313	2633
25. South Paris	6192	3339	3893	5806	4542	4152	3958	1684	3982	3492	4104	4347
26. Rumford /Rangeley	1616	1612	1752	1850	1427	1789	1861	2295	1541	2565	1831	1608
27. Bethel	3138	4503	5014	2882	4072	3869	4550	2330	8022	10000	4838	3971
28. Bridgton	2757	1789	2774	2728	2507	2126	2123	2550	2297	1182	2283	2317
29. Limerick	2181	1939	2187	2467	2463	2602	2953	2833	2760	2237	2462	2533
30. Sanford	4381	5014	3571	4930	3043	6273	4146	3102	2999	3377	4084	4658
31. Biddeford /Saco	2087	2218	2004	2150	2228	1932	1582	3805	1204	1601	2081	2080
32. York	4366	2546	2626	3550	3632	5098	7906	4574	7654	4428	4638	4365
33. Mt. Desert	2279	3561	4320	3339	2432	2942	3664	9234	3635	3030	3844	2687

(year = July 1 - May 31; example: 2016 = July 1, 2015-May 31, 2016)

2016
MFO Market Concentration

Market Area	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg	Median
Androscoggin	791	1015	1077	745	694	796	897	2051	872	1399	1034	745
Aroostook	1159	1201	1375	1477	1146	981	1285	1137	1021	1301	1208	1064
Cumberland	703	639	741	537	447	493	697	693	644	1103	670	470
Franklin	1268	1207	991	887	932	1060	1027	988	874	819	1005	996
Hancock	578	589	820	657	452	570	797	661	640	925	669	511
Kennebec	919	916	1015	619	750	740	767	709	768	895	810	745
Knox	1346	1328	1459	2445	1850	2082	2256	2020	2279	2417	1948	1966
Lincoln	2061	2477	1899	900	846	931	858	816	762	1966	1352	889
Oxford	2307	1892	2060	1775	1628	1534	2014	1724	1702	2012	1865	1581
Penobscot	951	1041	1157	667	581	1098	804	591	824	1148	886	840
Piscataquis	2530	2901	3046	3917	8135	5149	4552	3868	3387	5516	4300	6642
Sagadahoc	1277	1453	1364	3337	1136	1120	998	991	992	1027	1370	1128
Somerset	1284	1250	769	556	588	547	440	436	577	1576	802	568
Waldo	729	1022	819	804	404	621	775	548	590	1461	777	513
Washington	1124	1015	1042	500	489	558	621	617	610	1455	803	524
York	764	1042	1240	606	690	820	774	878	768	1135	872	755

(year = July 1 - May 31; example: 2016 = July 1, 2015 - May 31, 2016)