

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
COMMODITY COSTS

	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	TOTAL	WINTER	SUMMER
1 Supply Volumes - Therms															
2															
3 Total Pipeline	500,218	456,648	466,707	437,548	886,927	705,531	401,111	262,249	272,193	244,288	294,730	516,970	5,445,120	3,453,579	1,991,541
4 Total Storage	383,742	812,730	982,936	894,846	258,265	28	0	0	0	0	0	0	3,332,547	3,332,547	0
5 Total Peaking	134,831	157,660	199,350	141,997	146,875	1,350	1,395	1,350	1,395	1,395	1,350	1,395	790,343	782,063	8,280
6 Less Interruptible	577	0	0	0	0	2,540	3,540	3,540	2,540	1,540	790	640	15,707	3,117	12,590
7 Subtotal	1,018,214	1,427,038	1,648,993	1,474,391	1,292,067	704,369	398,966	260,059	271,048	244,143	295,290	517,725	9,552,303	7,565,072	1,987,231
8 Less Company Use	6,226	9,284	10,993	9,238	7,937	5,076	2,813	1,374	1,098	1,115	1,704	3,943	60,801	48,754	12,047
9 Total Firm	1,011,988	1,417,754	1,638,000	1,465,153	1,284,130	696,753	392,613	255,145	267,410	241,488	292,796	513,142	9,476,372	7,513,778	1,962,594
10 Variable Costs															
11															
12 Total Pipeline	\$ 4,677,917	\$ 4,506,930	\$ 4,726,835	\$ 4,443,664	\$ 8,642,399	\$ 6,497,090	\$ 3,614,929	\$ 2,355,930	\$ 2,475,928	\$ 2,234,864	\$ 2,724,387	\$ 4,909,936	\$ 51,810,807	\$ 33,494,834	\$ 18,315,91
13 Total Storage	\$ 4,255,081	\$ 8,754,097	\$ 10,538,486	\$ 9,626,863	\$ 2,772,630	\$ 8,493	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,955,650	\$ 35,955,650	\$ -
14 Total Peaking	\$ 887,545	\$ 986,532	\$ 1,577,541	\$ 868,526	\$ 915,279	\$ 49,620	\$ 20,755	\$ 20,090	\$ 20,755	\$ 20,755	\$ 20,090	\$ 100,795	\$ 5,488,283	\$ 5,285,043	\$ 203,240
15 Subtotal	\$ 9,820,543	\$ 14,247,559	\$ 16,842,862	\$ 14,939,053	\$ 12,330,308	\$ 6,555,203	\$ 3,635,684	\$ 2,376,020	\$ 2,496,683	\$ 2,255,619	\$ 2,744,477	\$ 5,010,731	\$ 93,254,740	\$ 74,735,527	\$ 18,519,213
16 Less Interruptible Incl Above	\$ 4,593	\$ -	\$ -	\$ -	\$ -	\$ 21,895	\$ 30,656	\$ 31,789	\$ 23,368	\$ 14,676	\$ 7,521	\$ 6,035	\$ 140,533	\$ 26,488	\$ 114,045
17 Total (Without Interr)	\$ 9,815,950	\$ 14,247,559	\$ 16,842,862	\$ 14,939,053	\$ 12,330,308	\$ 6,533,308	\$ 3,605,028	\$ 2,344,231	\$ 2,473,315	\$ 2,240,943	\$ 2,736,956	\$ 5,004,696	\$ 93,114,207	\$ 74,709,039	\$ 18,405,168
18															
19															
20 Commodity Allocation Factors															
21 Therms															
22 Maine	532,884	727,857	823,168	735,866	639,532	276,061	154,202	86,877	94,340	84,856	89,241	189,939	4,434,823	3,735,368	699,455
23 New Hampshire	485,332	699,179	825,820	738,521	652,530	428,307	244,765	173,182	176,709	159,288	206,048	327,787	5,117,468	3,829,689	1,287,779
24 Total	1,018,216	1,427,036	1,648,988	1,474,387	1,292,062	704,368	398,967	260,059	271,049	244,144	295,289	517,726	9,552,291	7,565,057	1,987,234
25															
26 Percentage of Total															
27 Maine	52.34%	51.00%	49.92%	49.91%	49.50%	39.19%	38.65%	33.41%	34.81%	34.76%	30.22%	36.69%	46.43%	49.38%	35.20%
28 New Hampshire	47.66%	49.00%	50.08%	50.09%	50.50%	60.81%	61.35%	66.59%	65.19%	65.24%	69.78%	63.31%	53.57%	50.62%	64.80%
29 Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
30															
31															
32 Commodity Allocation by Jurisdiction															
33 Maine	\$5,137,184	\$7,266,940	\$8,407,887	\$7,456,076	\$6,103,133	\$2,560,581	\$1,393,355	\$783,129	\$860,850	\$778,874	\$827,151	\$1,836,081	\$43,411,241	\$36,931,801	\$6,479,440
34 New Hampshire	\$4,678,766	\$6,980,618	\$8,434,975	\$7,482,977	\$6,227,175	\$3,972,727	\$2,211,673	\$1,561,102	\$1,612,465	\$1,462,089	\$1,909,805	\$3,168,615	\$49,702,966	\$37,777,238	\$11,925,728
35 Total	\$9,815,950	\$14,247,559	\$16,842,862	\$14,939,053	\$12,330,308	\$6,533,308	\$3,605,028	\$2,344,231	\$2,473,315	\$2,240,943	\$2,736,956	\$5,004,696	\$93,114,207	\$74,709,039	\$18,405,168

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
FIXED CAPACITY-RELATED COSTS

1 Proportional Responsibility (PR) Allocator Used to Allocate Product and Pipeline Demand Costs (Including Injections)
2 (based on Pipeline Design Day Sendout)

	Pipeline Vos	Rank	%WINTER	PR	CumPR	\$
NOV	667,586	3	73.54%	5.397%	11.988%	\$1,701,391
DEC	459,133	7	50.58%	0.909%	5.158%	\$732,073
JAN	496,662	5	54.71%	0.506%	5.931%	\$841,820
FEB	473,716	6	52.18%	0.268%	5.426%	\$770,072
MAR	907,802	1	100.00%	21.475%	35.956%	\$5,103,131
APR	712,853	2	78.53%	2.493%	14.481%	\$2,055,248
MAY	401,350	8	44.21%	1.364%	4.249%	\$603,016
JUN	265,942	11	29.30%	0.131%	2.452%	\$348,032
JUL	276,019	10	30.41%	0.111%	2.563%	\$363,786
AUG	252,872	12	27.86%	2.321%	2.321%	\$329,455
SEP	302,279	9	33.30%	0.321%	2.885%	\$409,404
OCT	520,599	4	57.35%	0.659%	6.591%	\$935,380
TOTAL	5,736,813			35.956%	100.000%	\$14,192,809

21 Proportional Responsibility (PR) Allocator Used to Allocate Storage and Peaking Demand Costs
22 (based on Storage Withdrawals from Design Day Sendout)

	Storage Withdrawal Vols	Rank	%WINTER	PR	CumPR	\$	Less Injection Fees	TOTAL
NOV	280,891	5	27.15%	5.430%	5.430%	\$916,612	\$0	\$916,612
DEC	898,865	3	86.89%	18.767%	25.056%	\$4,229,368	\$0	\$4,229,368
JAN	1,034,523	1	100.00%	9.925%	36.575%	\$6,173,759	\$9,798	\$6,183,557
FEB	931,846	2	90.07%	1.594%	26.650%	\$4,498,435	\$22,893	\$4,521,327
MAR	316,407	4	30.58%	0.858%	6.289%	\$1,061,486	\$7,830	\$1,069,316
APR	30	6	0.00%	0.000%	0.000%	\$82	\$148,098	\$148,180
MAY	0	7	0.00%	0.000%	0.000%	\$0	\$351,326	\$351,326
JUN	0	7	0.00%	0.000%	0.000%	\$0	\$238,086	\$238,086
JUL	0	7	0.00%	0.000%	0.000%	\$0	\$250,949	\$250,949
AUG	0	7	0.00%	0.000%	0.000%	\$0	\$233,336	\$233,336
SEP	0	7	0.00%	0.000%	0.000%	\$0	\$271,337	\$271,337
OCT	0	7	0.00%	0.000%	0.000%	\$0	\$517,134	\$517,134
TOTAL	3,462,562	7		36.575%	100.000%	\$16,879,742	\$2,050,787	\$18,930,530

41 Percentage of Deliveries Injected - Allocator Used to Allocate Storage Injection Fees

	Storage Injection Vols	Pipeline	Percentage of Deliveries Inj.	Injection Fees
NOV	0	667,586	0.00%	\$0
DEC	0	459,133	0.00%	\$0
JAN	5,849	496,662	1.16%	\$9,798
FEB	14,514	473,716	2.97%	\$22,893
MAR	1,395	907,802	0.15%	\$7,830
APR	55,356	712,853	7.21%	\$148,098
MAY	560,232	401,350	58.26%	\$351,326
JUN	575,893	265,942	68.41%	\$238,086
JUL	613,862	276,019	68.98%	\$250,949
AUG	613,862	252,872	70.82%	\$233,336
SEP	594,060	302,279	66.28%	\$271,337
OCT	643,687	520,599	55.29%	\$517,134
TOTAL	3,678,710	5,736,813	39.07%	\$2,050,787

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
FIXED CAPACITY-RELATED COSTS

<u>Total Fixed Capacity Related Costs</u>													
TOTAL													
Pipeline Demand	\$9,988,459												
Product Demand	\$4,204,350												
Storage Demand	\$16,879,742												
Peaking Demand	\$0												
Subtotal Demand	<u>\$31,072,551</u>												
Capacity Release	(\$960,000)												
Total Demand	\$30,112,551												
	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	TOTAL
Pipeline & Product Demand	\$1,701,391	\$732,073	\$841,820	\$770,072	\$5,103,131	\$2,055,248	\$603,016	\$348,032	\$363,786	\$329,455	\$409,404	\$935,380	\$14,192,809
Storage & Peaking	\$916,612	\$4,229,368	\$6,183,557	\$4,521,327	\$1,069,316	\$148,180	\$351,326	\$238,086	\$250,949	\$233,336	\$271,337	\$517,134	\$18,930,530
Less: Injection Fees	0	0	(9,798)	(22,893)	(7,830)	(148,098)	(351,326)	(238,086)	(250,949)	(233,336)	(271,337)	(517,134)	(\$2,050,787)
Less: Capacity Release	<u>(\$192,000)</u>	<u>(\$192,000)</u>	<u>(\$192,000)</u>	<u>(\$192,000)</u>	<u>(\$192,000)</u>	<u>\$0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(\$960,000)</u>
Total Demand	\$2,426,003	\$4,769,441	\$6,823,579	\$5,076,507	\$5,972,617	\$2,055,330	\$603,016	\$348,032	\$363,786	\$329,455	\$409,404	\$935,380	\$30,112,551

19	Firm Sendout Allocation based on PR Allocator Dispatch													
20		Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	TOTAL
21	Therms													
22	Maine	555,860	768,621	869,777	777,372	672,236	441,279	276,674	187,343	195,668	94,680	189,182	324,856	5,353,548
23	New Hampshire	<u>520,139</u>	<u>747,644</u>	<u>875,485</u>	<u>786,439</u>	<u>702,698</u>	<u>435,561</u>	<u>243,910</u>	<u>175,796</u>	<u>178,469</u>	<u>164,813</u>	<u>209,777</u>	<u>327,410</u>	<u>5,368,141</u>
24	Total	1,075,999	1,516,265	1,745,262	1,563,811	1,374,934	876,840	520,584	363,139	374,137	259,493	398,959	652,266	10,721,689

26	Percentage of Total	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	TOTAL
27	Maine	51.66%	50.69%	49.84%	49.71%	48.89%	50.33%	53.15%	51.59%	52.30%	36.49%	47.42%	49.80%	49.88%
28	New Hampshire	48.34%	49.31%	50.16%	50.29%	51.11%	49.67%	46.85%	48.41%	47.70%	63.51%	52.58%	50.20%	50.12%
29	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
30														
31	Demand Allocation by Jurisdiction													
32	Maine	\$1,253,271	\$2,417,712	\$3,400,631	\$2,523,536	\$2,920,146	\$1,034,367	\$320,484	\$179,549	\$190,255	\$120,207	\$194,135	\$465,859	\$15,020,152
33	New Hampshire	<u>\$1,172,732</u>	<u>\$2,351,729</u>	<u>\$3,422,948</u>	<u>\$2,552,970</u>	<u>\$3,052,471</u>	<u>\$1,020,963</u>	<u>\$282,532</u>	<u>\$168,483</u>	<u>\$173,532</u>	<u>\$209,249</u>	<u>\$215,269</u>	<u>\$469,521</u>	<u>\$15,092,399</u>
34	Total	\$2,426,003	\$4,769,441	\$6,823,579	\$5,076,507	\$5,972,617	\$2,055,330	\$603,016	\$348,032	\$363,786	\$329,455	\$409,404	\$935,380	\$30,112,551

38	Detailed Demand Allocation by Jurisdiction													
39	Maine	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	TOTAL
40	Pipeline & Product Demand	\$ 878,937	\$ 371,100	\$ 419,534	\$ 382,803	\$ 2,495,035	\$ 1,034,326	\$ 320,484	\$ 179,549	\$ 190,255	\$ 120,207	\$ 194,135	\$ 465,859	\$ 7,052,223
41	Storage & Peaking	\$ 473,521	\$ 2,143,940	\$ 3,081,667	\$ 2,247,556	\$ 522,813	\$ 74,573	\$ 186,719	\$ 122,828	\$ 131,242	\$ 85,136	\$ 128,665	\$ 257,555	\$ 9,456,215
42	Injection Fees	\$ -	\$ -	\$ (4,883)	\$ (11,380)	\$ (3,828)	\$ (74,532)	\$ (186,719)	\$ (122,828)	\$ (131,242)	\$ (85,136)	\$ (128,665)	\$ (257,555)	\$ (1,006,769)
43	Capacity Release	\$ (99,187)	\$ (97,328)	\$ (95,686)	\$ (95,443)	\$ (93,873)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (481,518)
44	Total Demand, Maine	\$ 1,253,271	\$ 2,417,712	\$ 3,400,631	\$ 2,523,536	\$ 2,920,146	\$ 1,034,367	\$ 320,484	\$ 179,549	\$ 190,255	\$ 120,207	\$ 194,135	\$ 465,859	\$ 15,020,152
45														
46														
47	NH													
48	Pipeline & Product Demand	\$ 822,454	\$ 360,972	\$ 422,287	\$ 387,268	\$ 2,608,096	\$ 1,020,923	\$ 282,532	\$ 168,483	\$ 173,532	\$ 209,249	\$ 215,269	\$ 469,521	\$ 7,140,586
49	Storage & Peaking	\$ 443,091	\$ 2,085,428	\$ 3,101,891	\$ 2,273,771	\$ 546,504	\$ 73,607	\$ 164,607	\$ 115,258	\$ 119,706	\$ 148,200	\$ 142,672	\$ 259,579	\$ 9,474,314
50	Injection Fees	\$ -	\$ -	\$ (4,915)	\$ (11,513)	\$ (4,002)	\$ (73,566)	\$ (164,607)	\$ (115,258)	\$ (119,706)	\$ (148,200)	\$ (142,672)	\$ (259,579)	\$ (1,044,019)
51	Capacity Release	\$ (92,813)	\$ (94,672)	\$ (96,314)	\$ (96,557)	\$ (98,127)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (478,482)
52	Total Demand, NH	\$ 1,172,732	\$ 2,351,729	\$ 3,422,948	\$ 2,552,970	\$ 3,052,471	\$ 1,020,963	\$ 282,532	\$ 168,483	\$ 173,532	\$ 209,249	\$ 215,269	\$ 469,521	\$ 15,092,399