Schedule III - 1
Heat Customer - Customer Models

Residential

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Residential					
New Construction Customer Number	Households Non-Manufacturing Employment	Linear	1	1.411	0.9564
Conversion Customer Number	Households	Linear	0	1.4805	0.9674
New Hampshire Residential					
New Construction Customer Number	Non-Manufacturing Employment Households	Linear	1	1.9283	0.989
Conversion Customer Number	Households	Linear	0	2.227	0.9951

Commercial

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Commercial					
New Construction Customer Number	Households Non-Manufacturing Employment	Linear	2	1.5437	0.9434
Conversion Customer Number	Non-Manufacturing Employment	Linear	0	3.1422	0.9666
New Hampshire Commercial					
New Construction Customer Number	Households Non-Manufacturing Employment		1	1.8553	0.997
Conversion Customer Number	Non-Manufacturing Employment		0	3.031	0.9992

Schedule III - 2
Base Load Model Forecast Assumptions

Existing Customers	NU-ME	NU-NH
Water Heater Life - yrs	12	12
Water Heater Replacement Rate - Natural Gas	100%	100%
Water Heater Energy Efficiency Improvement	6%	6%
Cooking Range Life - yrs	12	12
Cooking Range Replacement Rate - Natural Gas	100%	100%
Cooking Range Efficiency Improvement	10%	10%
Clothes Dryer Life - yrs	12	12
Clothes Dryer Replacement Rate - Natural Gas	100%	100%
Clothes Dryer Efficiency Improvement	0%	0%
New Customers	NU-ME	NU-NH
Water Heater Life - yrs	12	12
Water Heater Energy Efficiency Improvement	6%	6%
Water Heater Energy Efficiency Factor New	62%	62%
Cooking Range Life - yrs	12	12
Cooking Range Penetration/Saturation	60%	60%
Cooking Range Efficiency Improvement	10%	10%
Clothes Dryer Life - yrs	12	12
Clothes Dryer Penetration/Saturation	35%	35%
Clothes Dryer Efficiency Improvement	0%	0%
Conversion Customers		
Water Heater Life - yrs	12	12
Water Heater Penetration/Saturation	50-90%	50-90%
Water Heater Energy Efficiency Improvement	6%	6%
Cooking Range Life - yrs	12	12
Cooking Range Penetration/Saturation	30-60%	30-60%
Cooking Range Efficiency Improvement	10%	10%
Clothes Dryer Life - yrs	12	12
Clothes Dryer Penetration/Saturation	17-35%	17-35%
Clothes Dryer Efficiency Improvement	0%	0%

Schedule III - 3
Heat Customer - Consumption Models

Residential

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Residential					
Temperature-Sensitive Use per Customer	1992 Binary Real Price Average Efficiency	Log-Linear	4	2.1732	0.978
New Hampshire Residential					
Temperature-Sensitive Use per Customer	Real Price Average Efficiency	Log-Linear	1	1.9353	0.5838

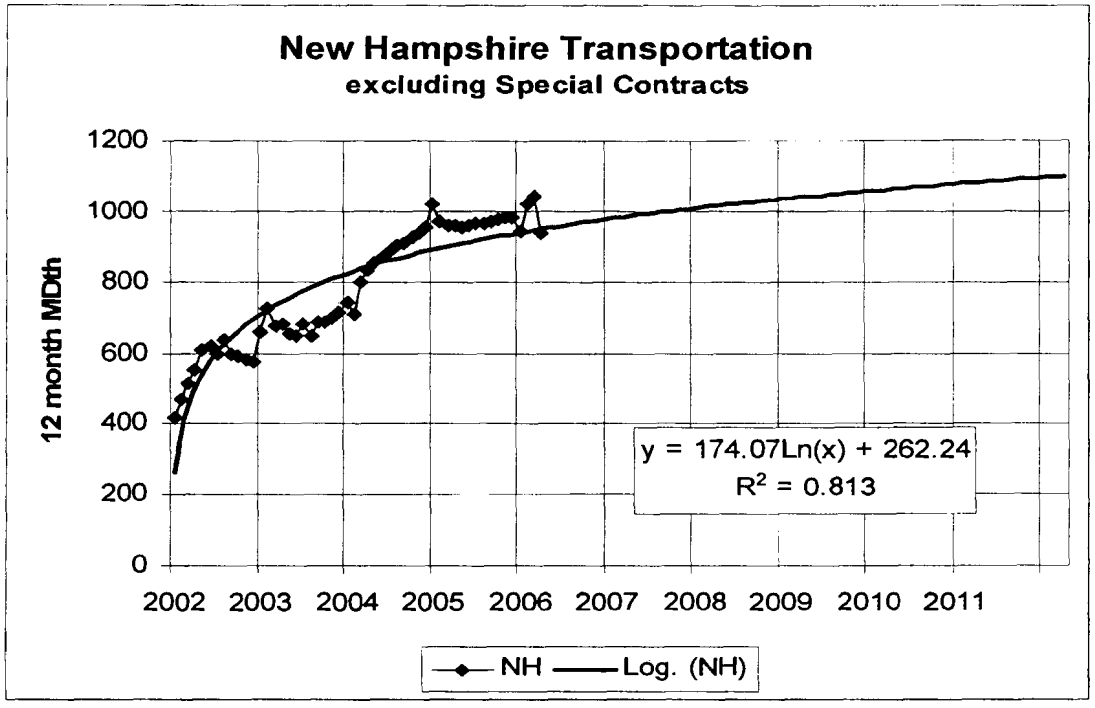
Commercial

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Commercial					
Temperature-Sensitive Use per Customer	Real Price Asymmetric Downward Price Real Per Capita Personal Income Average Efficiency	Log-Linear	4	1.9915	0.7066
Non-Temperature-Sensitive Use Per Customer	Constant Intercept	Linear	0	not calculated	not calculated
New Hampshire Commercial					
Temperature-Sensitive Use per Customer	Real Price Asymmetric Downward Price Non-Manufacturing Employment	Log-Linear	4	1.3503	0.4648
Non-Temperature-Sensitive Use Per Customer	Real Price	Log-Linear	4	1.6264	0.1806

Schedule III - 4
Residential Non-Heat Customer Models

Maine	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Number of Customers	Monthly Binary Variables Monthly trend	Linear	1	1.9795	0.829
Use per Customer	Monthly Binary Variables Monthly trend 12-Month moving Average of Price	Linear	1	1.9985	0.6775
New Hampshire					
Number of Customers	Constant Intercept	Linear	0	not calculated	not calculated
Use per Customer	2003 Binary Variable 2004 Binary Variable Monthly Binary Variables Monthly trend 12-Month moving average of price	Linear	1	2.0024	0.9783

Schedule III - 5
Transportation Graph



Schedule III - 6
Volume Summary

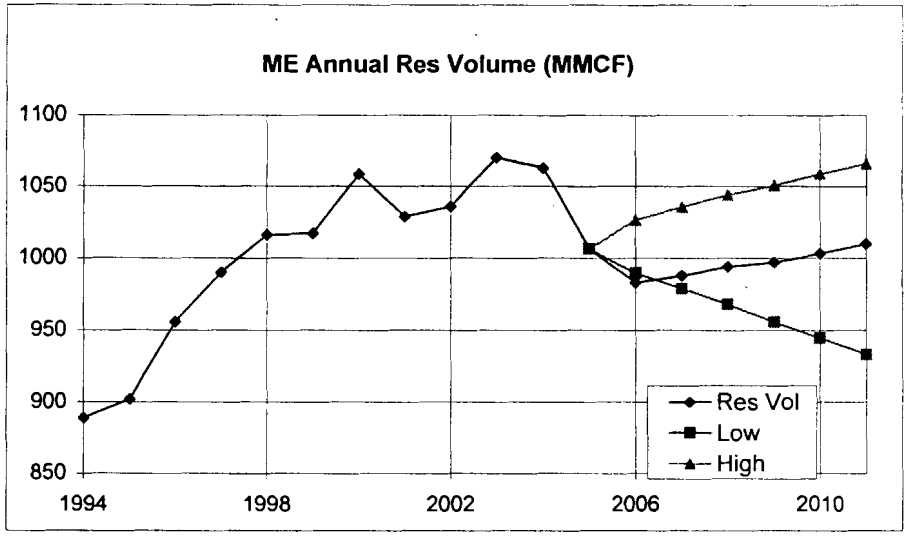
Northern Utility -Maine

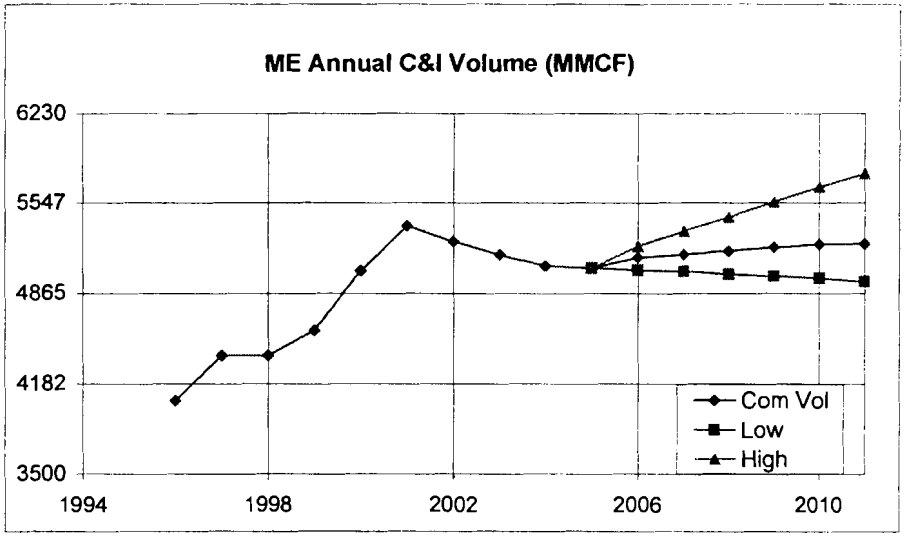
	Residential		Commercial and Industrial				Special Contracts	Total	
Year	Annual Volume (MMCF)	Year-end Customers	Annual Sales (MMCF)	Annual Trans (MMCF)	Annual Tput (MMCF)	Year-end Customers	Annual Volume (MMCF)	Annual Volume (MMCF)	Year-end Customers
2000	1,059	17,111	3,422	1,612	5,034	7,127	772	6,865	24,238
2001	1,029	17,384	3,436	1,937	5,373	7,159	807	7,209	24,543
2002	1,036	17,539	2,940	2,313	5,253	7,224	1,189	7,478	24,763
2003	1,071	17,693	2,922	2,231	5,153	7,253	908	7,132	24,946
2004	1,063	17,539	2,581	2,489	5,070	7,273	904	7,037	24,812
2005	1,006	17,309	2,249	2,809	5,058	7,716	739	6,803	25,025
2006	983	17,460	2,285	2,847	5,132	7,768	746	6,861	25,228
2007	988	17,599	2,166	2,992	5,158	7,799	746	6,892	25,398
2008	994	17,712	2,072	3,111	5,183	7,843	746	6,923	25,555
2009	997	17,851	1,979	3,232	5,211	7,885	746	6,954	25,736
2010	1,003	17,978	1,882	3,350	5,232	7,910	746	6,981	25,888
2011	1,010	18,087	1,781	3,460	5,241	7,915	746	6,997	26,002
CGAR 00-05	-1.02%	0.23%	-8.05%	11.75%	0.10%	1.60%	-0.87%	-0.18%	0.64%
CGAR 06-11	0.54%	0.71%	-4.86%	3.98%	0.42%	0.38%	0.00%	0.39%	0.61%

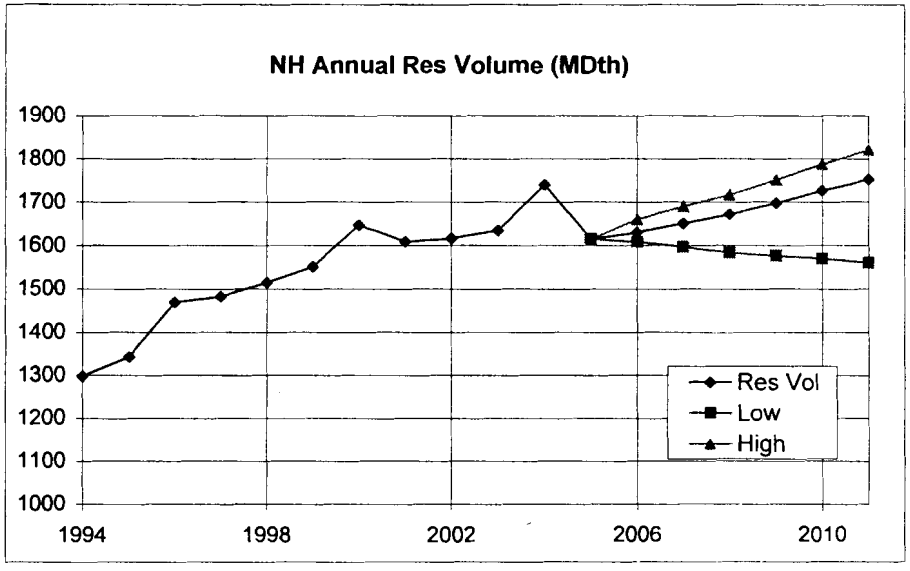
Northern Utility -New Hampshire

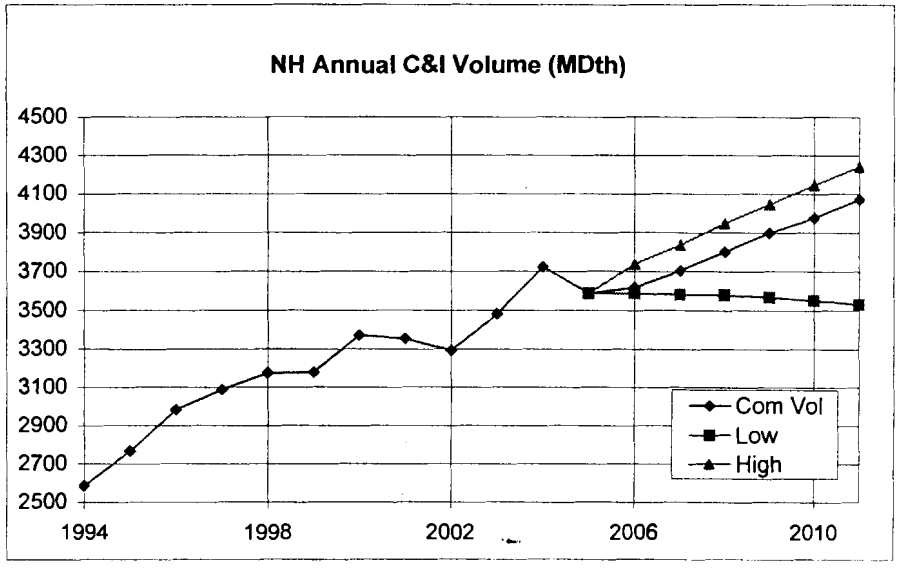
	Residential		Commercial and Industrial				Special Contracts	Total	
Year	Annual Volume (MMCF)	Year-end Customers	Annual Sales (MMCF)	Annual Trans (MMCF)	Annual Tput (MMCF)	Year-end Customers	Annual Volume (MMCF)	Annual Volume (MMCF)	Year-end Customers
2000	1,647	18,752	3,037	335	3,372	5,709	1,142	6,161	24,461
2001	1,609	19,196	2,918	436	3,354	5,739	1,265	6,228	24,935
2002	1,616	19,733	2,718	574	3,292	5,863	1,099	6,007	25,596
2003	1,634	20,103	2,761	720	3,481	5,874	1,299	6,414	25,977
2004	1,740	20,423	2,770	955	3,725	5,915	1,371	6,836	26,338
2005	1,616	20,857	2,603	984	3,587	5,989	1,357	6,560	26,846
2006	1,630	21,226	2,540	1,078	3,618	6,032	1,240	6,488	27,258
2007	1,651	21,561	2,597	1,107	3,704	6,088	1,224	6,579	27,649
2008	1,672	21,992	2,694	1,107	3,801	6,122	1,224	6,697	28,114
2009	1,697	22,443	2,793	1,107	3,900	6,154	1,224	6,821	28,597
2010	1,727	22,870	2,869	1,107	3,976	6,173	1,224	6,927	29,043
2011	1,752	23,262	2,966	1,107	4,073	6,180	1,224	7,049	29,442
CGAR 00-05	-0.38%	2.15%	-3.04%	24.05%	1.24%	0.96%	3.51%	1.26%	1.88%
CGAR 06-11	1.45%	1.85%	3.15%	0.53%	2.40%	0.49%	-0.26%	1.67%	1.55%

Schedule III - 7
Alternate Cases





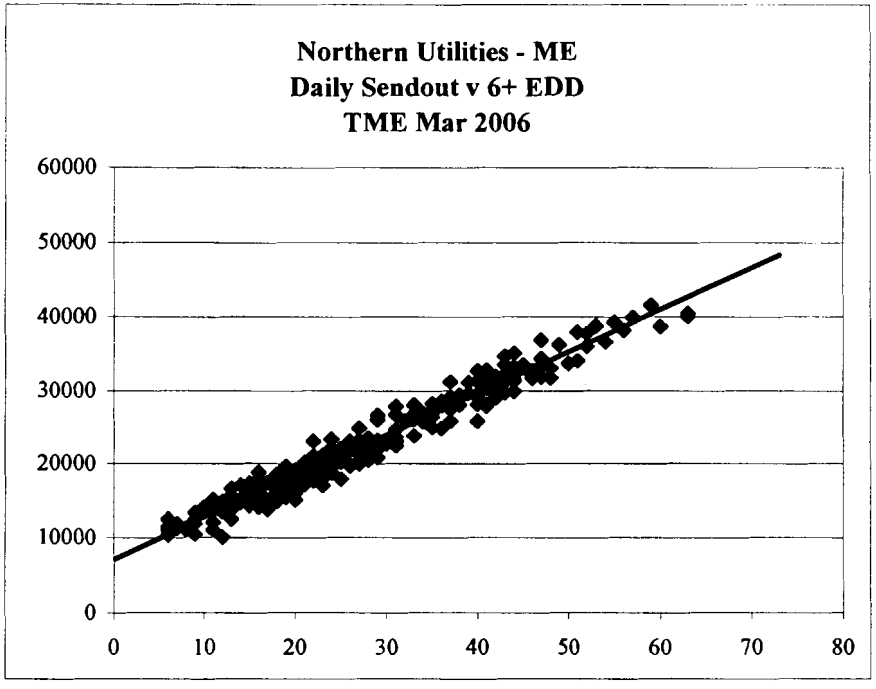




Schedule III - 8
Design Day Model and Graph

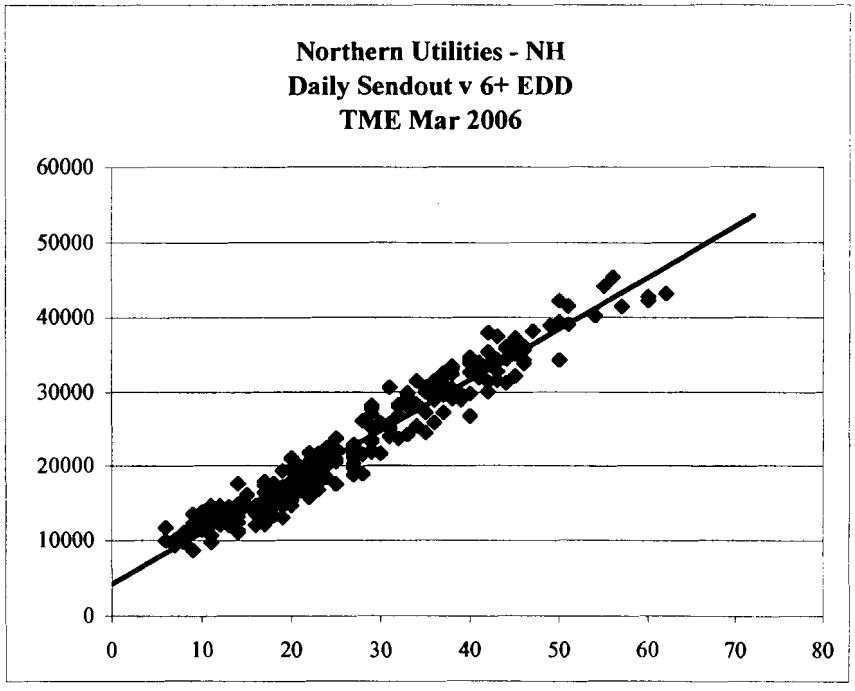
Maine

	Max Base Load	DTH/EDD	Design EDD	Design Dth
2006	11629	565	83	58554



New Hampshire

	Max Base Load	DTH/EDD	Design EDD	Design Dth
2006	10801	687	82	67120



Schedule III - 9
Design Day Forecast

Jan 2007 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,591	33,118	12,737	12,737	45,855	-	45,855
New Hampshire	68,127	53,979	10,107	4,040	58,020	(244)	57,776
Total	126,718	87,097	22,844	16,777	103,874	(244)	103,630

Jan 2008 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,681	32,194	13,243	13,243	45,437	(42)	45,396
New Hampshire	69,490	55,342	10,107	4,040	59,383	(487)	58,896
Total	128,171	87,536	23,351	17,284	104,820	(529)	104,291

Jan 2009 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,766	31,249	13,759	13,759	45,007	(88)	44,919
New Hampshire	70,923	56,775	10,107	4,040	60,815	(731)	60,084
Total	129,688	88,023	23,866	17,799	105,822	(819)	105,003

Jan 2010 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,815	30,293	14,261	14,261	44,554	(320)	44,234
New Hampshire	72,147	57,999	10,107	4,040	62,040	(974)	61,066
Total	130,962	88,292	24,368	18,301	106,594	(1,294)	105,300

Jan 2011 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,764	29,306	14,729	14,729	44,035	(566)	43,469
New Hampshire	73,556	59,408	10,107	4,040	63,449	(1,218)	62,231
Total	132,321	88,715	24,836	18,769	107,484	(1,784)	105,700

CE - Capacity Exempt
NCE - Non Capacity Exempt

Schedule III - 10
Design Winter

	Average EDD	
	NH	ME
Nov	773	840
Dec	1172	1246
Jan	1350	1440
Feb	1141	1211
Mar	998	1064
	5434	5801

	Design Winter EDD @ 1 in 33	
	NH	ME
Nov	864	936
Dec	1311	1388
Jan	1500	1594
Feb	1276	1349
Mar	1116	1185
	6067	6452

	Design Winter v Average	
	NH	ME
Nov	12%	11%
Dec	12%	11%
Jan	11%	11%
Feb	12%	11%
Mar	12%	11%
	12%	11%

Schedule III - 1
Heat Customer - Customer Models

Residential

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Residential					
New Construction Customer Number	Households Non-Manufacturing Employment	Linear	1	1.411	0.9564
Conversion Customer Number	Households	Linear	0	1.4805	0.9674
New Hampshire Residential					
New Construction Customer Number	Non-Manufacturing Employment Households	Linear	1	1.9283	0.989
Conversion Customer Number	Households	Linear	0	2.227	0.9951

Commercial

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Commercial					
New Construction Customer Number	Households Non-Manufacturing Employment	Linear	2	1.5437	0.9434
Conversion Customer Number	Non-Manufacturing Employment	Linear	0	3.1422	0.9666
New Hampshire Commercial					
New Construction Customer Number	Households Non-Manufacturing Employment		1	1.8553	0.997
Conversion Customer Number	Non-Manufacturing Employment		0	3.031	0.9992

Schedule III - 2
Base Load Model Forecast Assumptions

Existing Customers	NU-ME	NU-NH
Water Heater Life - yrs	12	12
Water Heater Replacement Rate - Natural Gas	100%	100%
Water Heater Energy Efficiency Improvement	6%	6%
Cooking Range Life - yrs	12	12
Cooking Range Replacement Rate - Natural Gas	100%	100%
Cooking Range Efficiency Improvement	10%	10%
Clothes Dryer Life - yrs	12	12
Clothes Dryer Replacement Rate - Natural Gas	100%	100%
Clothes Dryer Efficiency Improvement	0%	0%
New Customers	NU-ME	NU-NH
Water Heater Life - yrs	12	12
Water Heater Energy Efficiency Improvement	6%	6%
Water Heater Energy Efficiency Factor New	62%	62%
Cooking Range Life - yrs	12	12
Cooking Range Penetration/Saturation	60%	60%
Cooking Range Efficiency Improvement	10%	10%
Clothes Dryer Life - yrs	12	12
Clothes Dryer Penetration/Saturation	35%	35%
Clothes Dryer Efficiency Improvement	0%	0%
Conversion Customers		
Water Heater Life - yrs	12	12
Water Heater Penetration/Saturation	50-90%	50-90%
Water Heater Energy Efficiency Improvement	6%	6%
Cooking Range Life - yrs	12	12
Cooking Range Penetration/Saturation	30-60%	30-60%
Cooking Range Efficiency Improvement	10%	10%
Clothes Dryer Life - yrs	12	12
Clothes Dryer Penetration/Saturation	17-35%	17-35%
Clothes Dryer Efficiency Improvement	0%	0%

Schedule III - 3
Heat Customer - Consumption Models

Residential

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Residential					
Temperature-Sensitive Use per Customer	1992 Binary Real Price Average Efficiency	Log-Linear	4	2.1732	0.978
New Hampshire Residential					
Temperature-Sensitive Use per Customer	Real Price Average Efficiency	Log-Linear	1	1.9353	0.5838

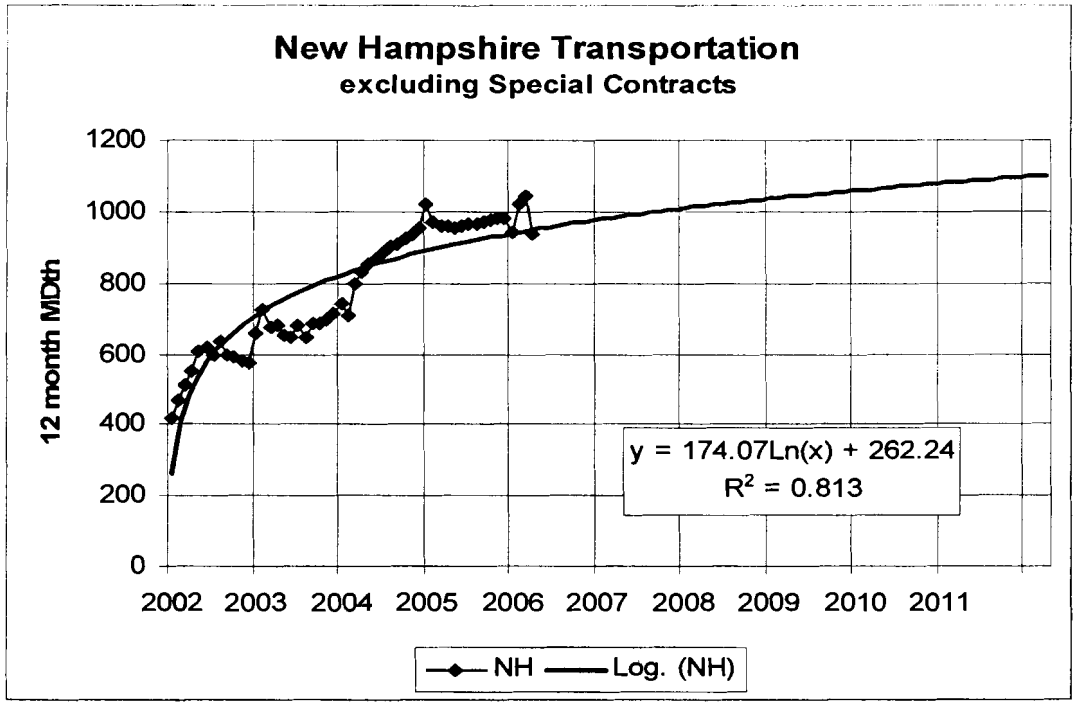
Commercial

	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Maine Commercial					
Temperature-Sensitive Use per Customer	Real Price Asymmetric Downward Price Real Per Capita Personal Income Average Efficiency	Log-Linear	4	1.9915	0.7066
Non-Temperature-Sensitive Use Per Customer	Constant Intercept	Linear	0	not calculated	not calculated
New Hampshire Commercial					
Temperature-Sensitive Use per Customer	Real Price Asymmetric Downward Price Non-Manufacturing Employment	Log-Linear	4	1.3503	0.4648
Non-Temperature-Sensitive Use Per Customer	Real Price	Log-Linear	4	1.6264	0.1806

Schedule III - 4
Residential Non-Heat Customer Models

Maine	Explanatory Variables	Form	Order of autocorrelation correction	Durbin-Watson Statistic	R-Square
Number of Customers	Monthly Binary Variables Monthly trend	Linear	1	1.9795	0.829
Use per Customer	Monthly Binary Variables Monthly trend 12-Month moving Average of Price	Linear	1	1.9985	0.6775
New Hampshire					
Number of Customers	Constant Intercept	Linear	0	not calculated	not calculated
Use per Customer	2003 Binary Variable 2004 Binary Variable Monthly Binary Variables Monthly trend 12-Month moving average of price	Linear	1	2.0024	0.9783

Schedule III - 5
Transportation Graph



Schedule III - 6
Volume Summary

Northern Utility -Maine

	Residential		Commercial and Industrial				Special Contracts	Total	
Year	Annual Volume (MMCF)	Year-end Customers	Annual Sales (MMCF)	Annual Trans (MMCF)	Annual Tput (MMCF)	Year-end Customers	Annual Volume (MMCF)	Annual Volume (MMCF)	Year-end Customers
2000	1,059	17,111	3,422	1,612	5,034	7,127	772	6,865	24,238
2001	1,029	17,384	3,436	1,937	5,373	7,159	807	7,209	24,543
2002	1,036	17,539	2,940	2,313	5,253	7,224	1,189	7,478	24,763
2003	1,071	17,693	2,922	2,231	5,153	7,253	908	7,132	24,946
2004	1,063	17,539	2,581	2,489	5,070	7,273	904	7,037	24,812
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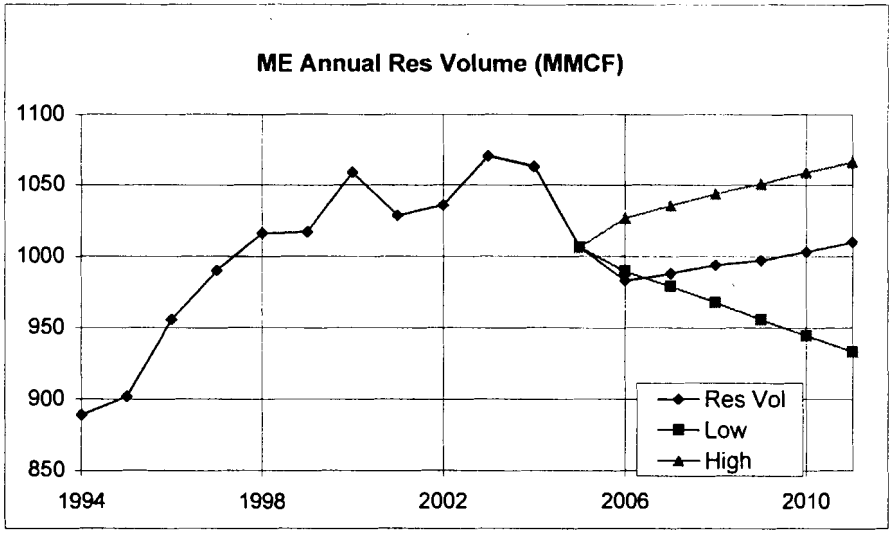
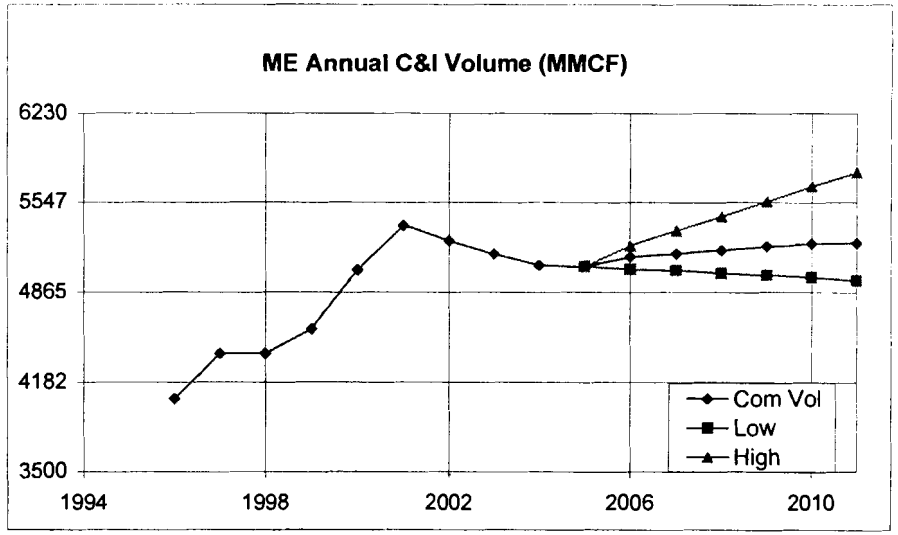
2006	983	17,460	2,285	2,847	5,132	7,768	746	6,861	25,228
2007	988	17,599	2,166	2,992	5,158	7,799	746	6,892	25,398
2008	994	17,712	2,072	3,111	5,183	7,843	746	6,923	25,555
2009	997	17,851	1,979	3,232	5,211	7,885	746	6,954	25,736
2010	1,003	17,978	1,882	3,350	5,232	7,910	746	6,981	25,888
2011	1,010	18,087	1,781	3,460	5,241	7,915	746	6,997	26,002
CGAR 00-05	-1.02%	0.23%	-8.05%	11.75%	0.10%	1.60%	-0.87%	-0.18%	0.64%
CGAR 06-11	0.54%	0.71%	-4.86%	3.98%	0.42%	0.38%	0.00%	0.39%	0.61%

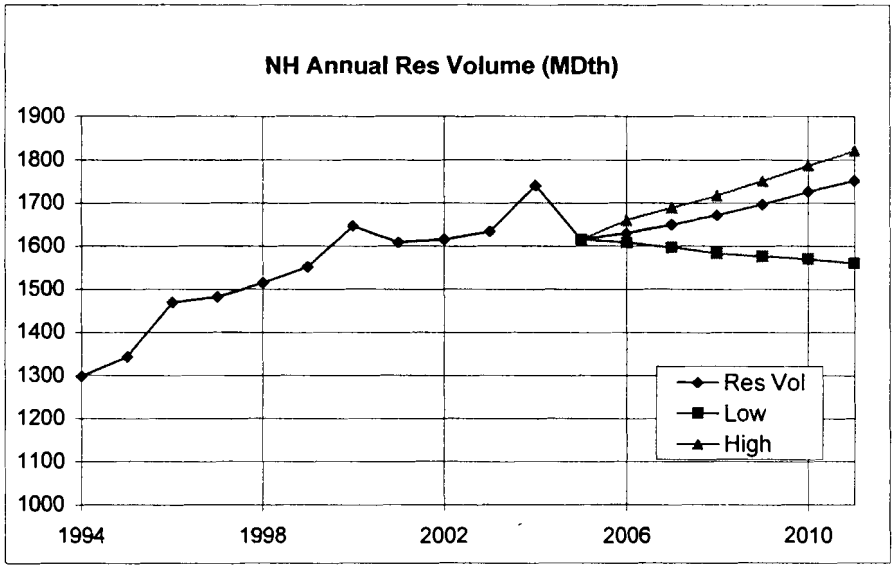
Northern Utility -New Hampshire

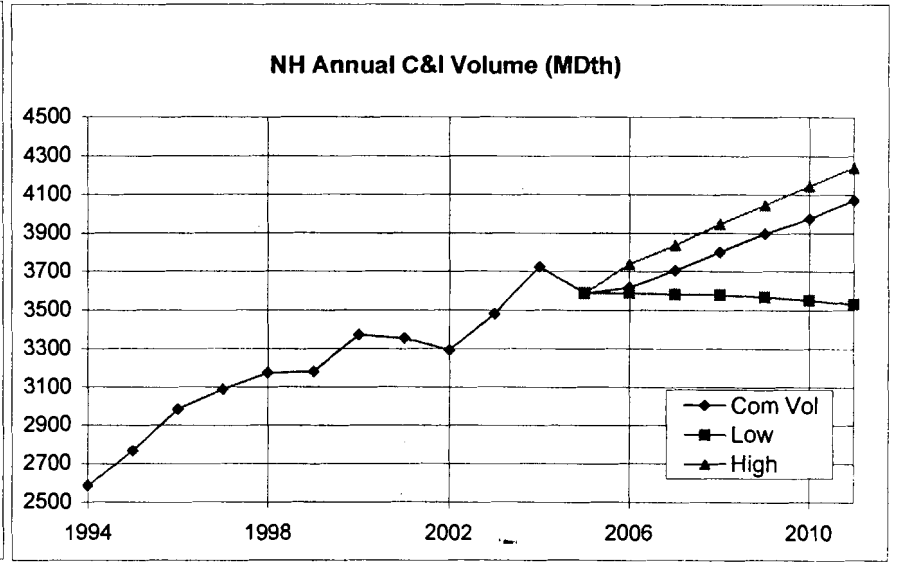
	Residential		Commercial and Industrial				Special Contracts	Total	
Year	Annual Volume (MMCF)	Year-end Customers	Annual Sales (MMCF)	Annual Trans (MMCF)	Annual Tput (MMCF)	Year-end Customers	Annual Volume (MMCF)	Annual Volume (MMCF)	Year-end Customers
2000	1,647	18,752	3,037	335	3,372	5,709	1,142	6,161	24,461
2001	1,609	19,196	2,918	436	3,354	5,739	1,265	6,228	24,935
2002	1,616	19,733	2,718	574	3,292	5,863	1,099	6,007	25,596
2003	1,634	20,103	2,761	720	3,481	5,874	1,299	6,414	25,977
2004	1,740	20,423	2,770	955	3,725	5,915	1,371	6,836	26,338
2005	1,616	20,857	2,603	984	3,587	5,989	1,357	6,560	26,846
2006	1,630	21,226	2,540	1,078	3,618	6,032	1,240	6,488	27,258
2007	1,651	21,561	2,597	1,107	3,704	6,088	1,224	6,579	27,649
2008	1,672	21,992	2,694	1,107	3,801	6,122	1,224	6,697	28,114
2009	1,697	22,443	2,793	1,107	3,900	6,154	1,224	6,821	28,597
2010	1,727	22,870	2,869	1,107	3,976	6,173	1,224	6,927	29,043
2011	1,752	23,262	2,966	1,107	4,073	6,180	1,224	7,049	29,442
CGAR 00-05	-0.38%	2.15%	-3.04%	24.05%	1.24%	0.96%	3.51%	1.26%	1.88%
CGAR 06-11	1.45%	1.85%	3.15%	0.53%	2.40%	0.49%	-0.26%	1.67%	1.55%

Schedule III - 7
Alternate Cases









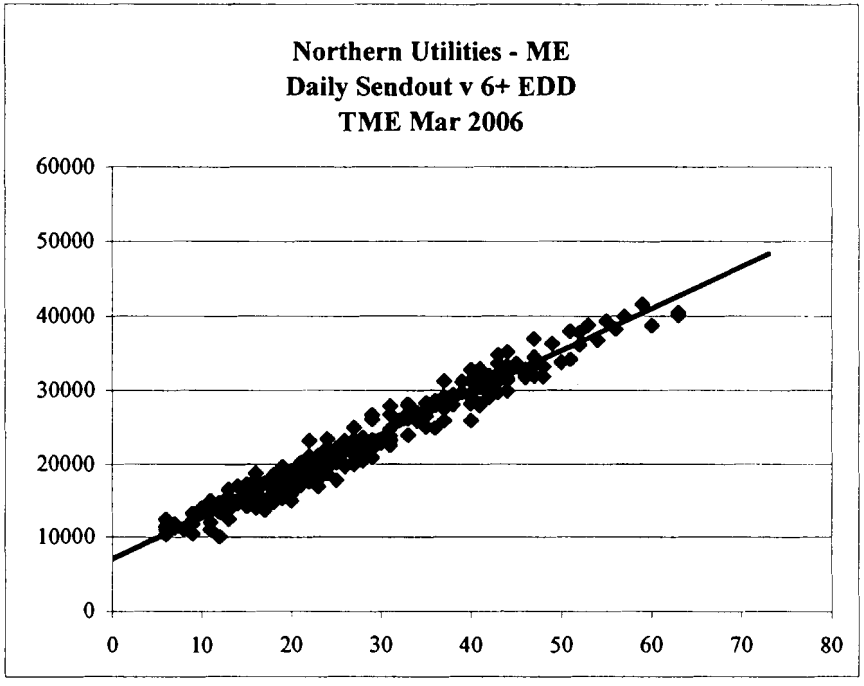
Schedule III - 8
Design Day Model and Graph

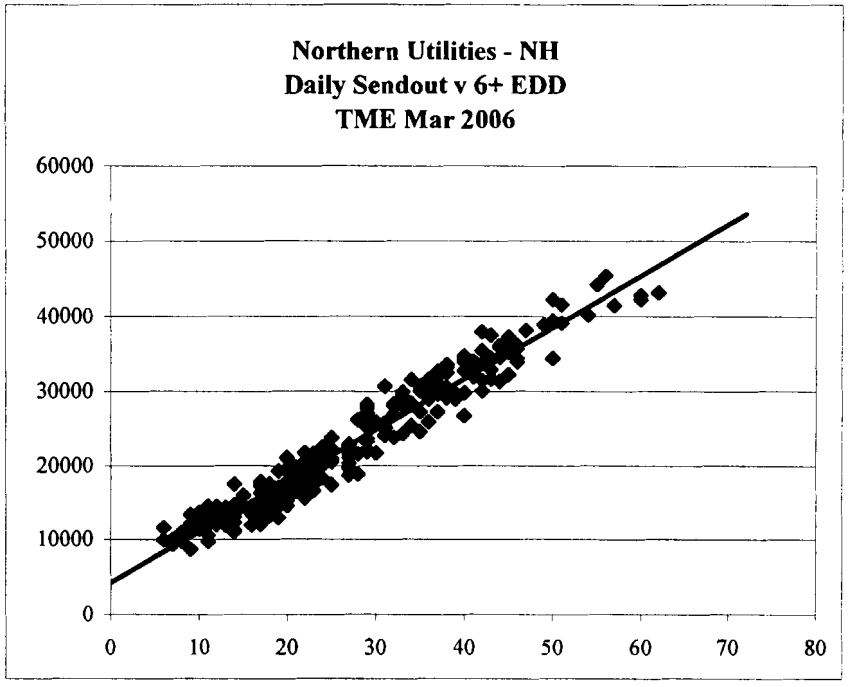
Maine

	Max Base Load	DTH/EDD	Design EDD	Design Dth
2006	11629	565	83	58554

New Hampshire

	Max Base Load	DTH/EDD	Design EDD	Design Dth
2006	10801	687	82	67120





Schedule III - 9
Design Day Forecast

Jan 2007 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,591	33,118	12,737	12,737	45,855	-	45,855
New Hampshire	68,127	53,979	10,107	4,040	58,020	(244)	57,776
Total	126,718	87,097	22,844	16,777	103,874	(244)	103,630

Jan 2008 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,681	32,194	13,243	13,243	45,437	(42)	45,396
New Hampshire	69,490	55,342	10,107	4,040	59,383	(487)	58,896
Total	128,171	87,536	23,351	17,284	104,820	(529)	104,291

Jan 2009 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,766	31,249	13,759	13,759	45,007	(88)	44,919
New Hampshire	70,923	56,775	10,107	4,040	60,815	(731)	60,084
Total	129,688	88,023	23,866	17,799	105,822	(819)	105,003

Jan 2010 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,815	30,293	14,261	14,261	44,554	(320)	44,234
New Hampshire	72,147	57,999	10,107	4,040	62,040	(974)	61,066
Total	130,962	88,292	24,368	18,301	106,594	(1,294)	105,300

Jan 2011 NU	Design Day Dth	Sales	CE Trans	NCE Trans	Design Day Dth less CE	DSM	Design less CE less DSM
Maine	58,764	29,306	14,729	14,729	44,035	(566)	43,469
New Hampshire	73,556	59,408	10,107	4,040	63,449	(1,218)	62,231
Total	132,321	88,715	24,836	18,769	107,484	(1,784)	105,700

CE - Capacity Exempt
NCE - Non Capacity Exempt

Schedule III - 10
Design Winter

	Average EDD	
	NH	ME
Nov	773	840
Dec	1172	1246
Jan	1350	1440
Feb	1141	1211
Mar	998	1064
	5434	5801

	Design Winter EDD @ 1 in 33	
	NH	ME
Nov	864	936
Dec	1311	1388
Jan	1500	1594
Feb	1276	1349
Mar	1116	1185
	6067	6452

	Design Winter v Average	
	NH	ME
Nov	12%	11%
Dec	12%	11%
Jan	11%	11%
Feb	12%	11%
Mar	12%	11%
	12%	11%