

ATTACHMENT A
2012 Power Supply Area Forecast



New England Distribution System

2012 Power Supply Area Forecast

New Hampshire Information Only

Electric Forecasting & Analysis

March 31, 2012

2012 Power Supply Area Forecast

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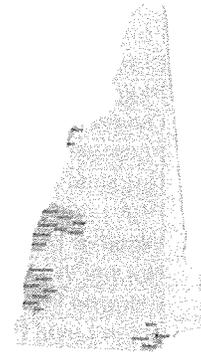
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Granite State Distribution System - 2012 Power Supply Area Forecast Extracts

Granite State Electric

Like the New Hampshire economy, Granite State's actual peak demand growth has been good over the last ten years, increasing 1.3% per year from 2001-2011. For the 2011-2026 fifteen-year forecast period, Granite State's peak is expected to increase 1.4% per year versus the 2011 actual peak. Although Granite State's service territory is in northern New England, the company remains solidly summer peaking with the current summer peak 32% higher than the winter peak.



Forecasted Peak Growth

Forecasted peak growth is based on economic projections provided by Moody's Economy.com¹, the assumption of extreme weather conditions and projections of energy efficiency (EE) savings on peak provided by the Company's Energy Efficiency Department.

For planning purposes, the forecast in Chart 1 assumes extreme summer weather conditions that have only a 5% probability of occurring. The 2012 growth rates therefore reflect both economic growth and a weather adjustment from actual 2011 conditions to extreme weather conditions assumed for 2011. Chart 2 shows the winter peaks.

¹ vintage January 2012.

2012 Power Supply Area Forecast

Chart 1
Summer Peak Demands (MW)

Company Summer Peak Demands *
Actual History and Forecast with Extreme Weather and EE

Year	New Hampshire	
	Granite State Electric	Growth Rate
=====	=====	=====
2001	174.22	
2002	169.61	-2.6%
2003	169.04	-0.3%
2004	184.16	8.9%
2005	187.94	2.1%
2006	179.07	-4.7%
2007	185.71	3.7%
2008	185.94	0.1%
2009	193.38	4.0%
2010	193.38	0.0%
2011	197.50	2.1%
Forecast		
2012	198.73	0.6%
2013	202.18	1.7%
2014	206.25	2.0%
2015	210.34	2.0%
2016	213.94	1.7%
2017	217.10	1.5%
2018	220.16	1.4%
2019	223.22	1.4%
2020	226.34	1.4%
2021	229.48	1.4%
2022	232.59	1.4%
2023	235.69	1.3%
2024	238.73	1.3%
2025	241.79	1.3%
2026	244.82	1.3%
Compound Annual Growth		
=====		
2001-2011 Ten Year		1.3%
2006-2011 Five Year		2.0%
Forecast		
2011-2016 Five Year		1.6%
2011-2021 Ten Year		1.5%
2011-2026 Fifteen Year		1.4%

* Company demands are sum of PSA's.

Chart 2
Winter Peak Demands (MW)

Company Winter Peak Demands *
Actual History and Forecast with Extreme Weather and EE

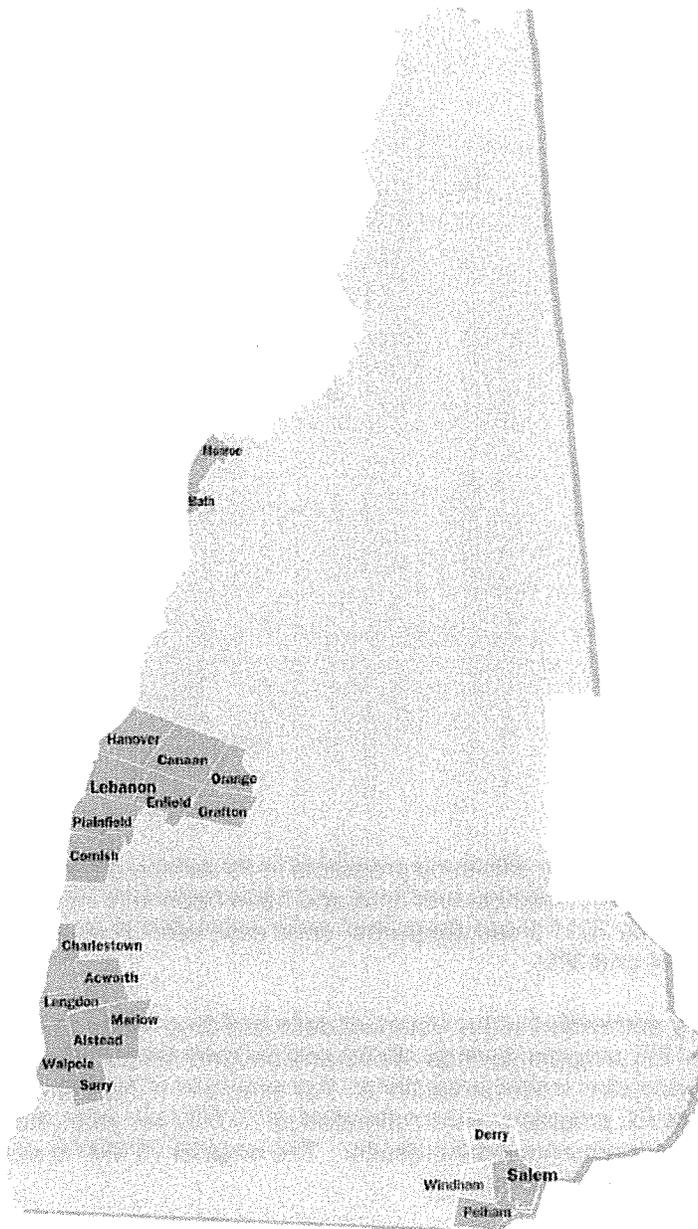
Winter Year	New Hampshire	
	Granite State Electric	Growth Rate
====	=====	=====
2001	126.284	
2002	132.303	4.8%
2003	139.795	5.7%
2004	146.262	4.6%
2005	148.709	1.7%
2006	147.388	-0.9%
2007	142.565	-3.3%
2008	146.260	2.6%
2009	126.865	-13.3%
2010	140.269	10.6%
2011	149.805	6.8%
Forecast		
2012	155.593	3.9%
2013	157.451	1.2%
2014	159.788	1.5%
2015	162.557	1.7%
2016	165.074	1.5%
2017	167.059	1.2%
2018	168.755	1.0%
2019	170.415	1.0%
2020	172.107	1.0%
2021	173.853	1.0%
2022	175.583	1.0%
2023	177.295	1.0%
2024	178.968	0.9%
2025	180.623	0.9%
2026	182.280	0.9%
Compound Annual Growth		
===== 2001-2011 Ten Year		1.7%
2006-2011 Five Year		0.3%
Forecast		
2011-2016 Five Year		2.0%
2011-2021 Ten Year		1.5%
2011-2026 Fifteen Year		1.3%

* Company demands are sum of PSA's.

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Charts 1 and 2, show the forecasts at the jurisdictional level. Forecasts are provided in the Appendices E-F for each of the 2 PSAs on a coincident and non-coincident basis for both summer and winter periods. Chart 3 shows each of the townships and how they are partitioned into the PSAs geographically (East Granite and West Granite) within the jurisdictions.

Chart 3



2012 Power Supply Area Forecast

Chart 4 lists each of the PSAs and towns in this study (a mapping to ISO-NE zones is shown as additional information).

Chart 4
National Grid New England Service Area (New Hampshire)
by
Power Supply Area (PSA) and Town Mapping by Zone and County

NEW HAMPSHIRE

Eastern Granite State (NH)

Derry
Pelham
Salem, NH
Windham

Western Granite State (NH)

Acworth
Alstead
Bath
Canaan
Charlestown, NH
Cornish
Enfield
Grafton, NH
Hanover, NH
Langdon
Lebanon
Marlow
Monroe, NH
Orange, NH
Plainfield
Surry
Walpole

PSA Counties

Granite State Electric Company

Eastern Geco Rockingham
Western Geco Grafton

Energy Efficiency

The Company has been implementing energy efficiency programs in its service area since 1987. These programs have produced significant savings over time and have been fully incorporated into the forecast process. For example, by 2011 these programs² were estimated to reduce the New Hampshire summer peak by 16 MW, or 8.3%.

These savings are considered fully embedded in the historical data and thus in the model produced results. Therefore, only additional EE program savings above and beyond the historical program trend are subtracted from the econometric model projections. For example, if the historical EE rate was 10 MW per year and the future EE programs were estimated at 15 MW per year, then 5 MW per year would be subtracted from the econometric model results. The original 10 MW is assumed to be already accounted for in the model projections.

² Passive energy efficiency programs only, not including any interruptible loads, direct load control, non-wires alternatives or SmartGrid savings.

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The Company must continue EE programs to maintain these historical savings, as well as effect additional savings. Cumulative EE savings can fall without new programs because much of the savings are from program savings installed years ago. As program lifetimes expire, cumulative EE savings drop unless new programs are introduced to replace them.

Charts 5 c shows the cumulative historic embedded EE (and what that historic trend would be in the future at the same rate), the new Commission-approved EE program savings (with an adjusted trend for years subsequent to Commission-approved program years³) and the delta between the two. This delta is the EE reductions made to the model produced forecast.

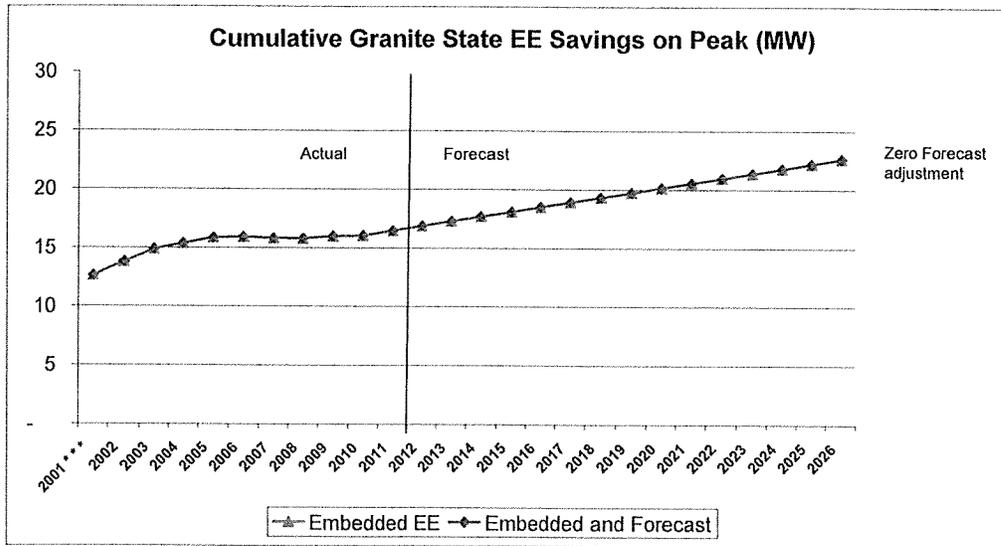
It should be noted that there is a new energy efficiency forecast working group at the ISO-NE that is for the first time planning on incorporating long-term energy efficiency reductions into their planning process. The Company has been actively involved in this working group and may incorporate elements of this process into its future forecasting process if and as appropriate.

³ In New Hampshire, Commission-approved programs run through 2011.

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Chart 5c
Granite State Actual and Forecast EE Savings on Peak

Year	Peak** Forecast before additional EE (MW)	Cumulative Embedded Trend (MW)	EE Percent of Peak %	Cumulative Embedded & Forecast (MW)	EE Percent of Peak %	Cumulative EE not Embedded (MW)	Peak Forecast w/ additional EE (MW)
2001***	163	13	7.7%	13	7.7%	-	163
2002	174	14	7.9%	14	7.9%	-	174
2003	170	15	8.8%	15	8.8%	-	170
2004	169	15	9.1%	15	9.1%	-	169
2005	184	16	8.6%	16	8.6%	-	184
2006	188	16	8.5%	16	8.5%	-	188
2007	179	16	8.8%	16	8.8%	-	179
2008	186	16	8.5%	16	8.5%	-	186
2009	186	16	8.6%	16	8.6%	-	186
2010	193	16	8.3%	16	8.3%	-	193
2011	198	16	8.3%	16	8.3%	-	198
2012	199	17	8.5%	17	8.5%	-	199
2013	202	17	8.5%	17	8.5%	-	202
2014	206	18	8.6%	18	8.6%	-	206
2015	210	18	8.6%	18	8.6%	-	210
2016	214	18	8.6%	18	8.6%	-	214
2017	217	19	8.7%	19	8.7%	-	217
2018	220	19	8.8%	19	8.8%	-	220
2019	223	20	8.8%	20	8.8%	-	223
2020	226	20	8.9%	20	8.9%	-	226
2021	229	21	8.9%	21	8.9%	-	229
2022	233	21	9.0%	21	9.0%	-	233
2023	236	21	9.1%	21	9.1%	-	236
2024	239	22	9.1%	22	9.1%	-	239
2025	242	22	9.2%	22	9.2%	-	242
2026	245	23	9.2%	23	9.2%	-	245



Notes

- o Embedded EE assumes that total savings continue to increase at the historic rate.
- o Embedded EE is included in the model-produced PSA load forecast.
- o Embedded Trend assumes that total savings will increase at the 2001-2011 historic rate after the completion of programs currently planned.
- o Embedded and Forecast EE assumes additional commission approved programs for the long-term plus continuation of historic trends.
- o The difference between Forecasted EE and Embedded EE is subtracted from the model-produced PSA forecast.
- o Peak savings are from passive Energy Efficiency programs only.

** Peak Forecast assumes Embedded EE programs
 *** 2001 Peak includes cumulative EE programs from 1996 forward

Source: Historical and commission approved program savings provided by the Energy Efficiency Dept.

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Plug-in Electric Vehicles

The PSA load forecast may also be adjusted for various plug-in electric vehicle scenarios. National Grid has developed estimates of the future impact of plug-in electric vehicles (PEVs) on peak demand on residential feeders under several penetration scenarios and four charging cases. The impacts for the mid-range vehicle penetration scenario under the four charging cases are shown on Charts 6a, b, c for National Grid's New England service areas.

These estimated PEV impacts are not included in any of the forecasted PSA load levels published in this report. However, the planner may add estimated PEV load impacts from one of these scenarios to the base line load forecast he or she is using. Before adding the PEV impacts, an appropriate coincidence factor would have to be applied since the impacts are on the residential peak, which usually occurs during a weekday evening, rather than the system peak, which usually occurs during a weekday afternoon.

In the near term, the most representative charging case is Uncontrolled. Chart 6 indicates that the impact of PEVs on the New Hampshire residential peak could reach approximately 8 MW by 2020 under this case. Moving forward it is likely that time of use (TOU) rates will be implemented and the TOU charging case will become representative of grid impacts. In this case, the PEV impact on the New Hampshire residential peak could reach 2 MW by 2020. Under the worst case charging scenario, all PEVs would be plugged in at the same time, during the residential peak, and impacts are estimated at 12 MW by 2020. Under the Smart control case, PEVs would have not significant impact on the residential peak in 2020, but this is not the most likely case.

**Chart 6a
 Plug-in Electric Vehicle Impact on Residential Feeders**

The analysis framework includes four different charging cases, each with different investment implications.

Charging Case	Description	Diversity factor	Coincidence with peak demand	Net Peak Contribution (% of gross PEV charging requirement)
Worst Case	<ul style="list-style-type: none"> All vehicle are plugged in and charging at the same time Charging is uncontrolled and occurs on peak 	100%	100%	100%
Uncontrolled	<ul style="list-style-type: none"> Charging is uncontrolled Charging load is based on "likely" conditions in terms of how many vehicles will be plugged in at any given time and charging while plugged in 	75%	90%	68%
TOU with some control	<ul style="list-style-type: none"> Charging is subject to simple controls and time-of-use tariffs to encourage (but not require) off-peak charging 	75%	20%	15%
Smart control	<ul style="list-style-type: none"> Charging is subject to smart controls and related tariffs to manage peak demand impacts 	75%	5%	4%

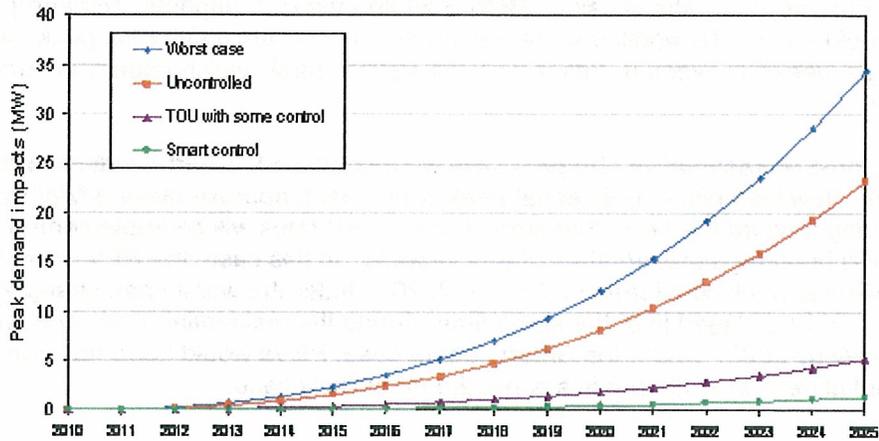
Notes:

- ◆ These are preliminary estimates.
- ◆ The "diversity factor" is based on commuting habits, which are assumed to be the same in all cases, except the Worst Case.
- ◆ Coincidence with peak demand is never zero because some customers will override control. The availability and use of public charging could also impact the coincidence with peak demand.



Chart 6c Plug-in Electric Vehicle Impact on Residential Feeders

In the Mid-Range Scenario, the PEV peak demand impacts in the Granite State service area could reach 2 MW by 2020 in the TOU case



Note: National Grid NH service territory, based on the evening peak on residential feeders.

5



Overview of Forecast Process and Results

Summary

The Company's peak demand forecasting process entails developing summer and winter peak demand forecasts for distribution planning areas known as Power Supply Areas (PSAs). This is a "bottom-up" approach in which separate econometric forecasts are developed for 2 PSAs that make up the New Hampshire service area. The econometric models predict monthly PSA peak demands as a function of county-level economic variables and peak-day weather conditions. In addition, PSA forecast results are allocated to the 21 towns that make up National Grid's New Hampshire service area. The allocation of the PSA forecast to towns is based on models that predict trends in town MWh growth. Chart 4 earlier shows the 2 PSAs and the towns served by each.

The PSA forecasts at time of the Distribution Company peak are aggregated to yield peak forecasts for each Distribution Company as well as its various Districts and Divisions. PSA peak demand is forecasted through the year 2026.

Forecasts of a PSA's own peak – that is, the highest demand reached within a given PSA – are calculated by multiplying forecasted PSA peak at time of the company peak by coincidence factors. These coincidence factors are calculated as the historical ratio of a PSA's maximum peak demand to its peak at time of the company peak.

To capture the uncertainty associated with peak-day weather conditions, peak demands are forecasted under both normal weather conditions (weather that has a 50% chance of occurring) and extreme weather conditions (weather that has only a 5% chance of occurring). The extreme weather peak forecast scenario represents an upper bound that can be expected for a given set of economic conditions.

Forecast Methodology

Regression models are used to develop baseline peak forecasts for each PSA. There is a separate model for each PSA. The models relate a PSA's historical coincident peak, that is, demand at time of the distribution Company peak, to observed peak-day weather conditions and county-level economic variables. These weather and economic variables are described in more detail below. Using either normal or extreme weather conditions, and economic forecasts from Moody's Economy.com, the models predict future PSA coincident peaks for each year of the forecast horizon. Incremental energy efficiency impacts are subtracted from the model produced results. Large incremental load additions, *spot loads*, may be added to the baseline regression forecast. Spot loads are defined as new load additions (and reductions) that are potentially 1 MW or greater and can be attributed to specific customers. Information regarding these loads, if any, are collected by the Planning Engineers at the time of their studies and used to adjust the PSA forecast results.

The regression models are based on fourteen years of monthly historical data, from January, 1997 to October, 2011. Projected summer and winter demands are taken from the monthly results as the highest monthly demand predicted within these seasons. Regression results are shown in Appendix J.

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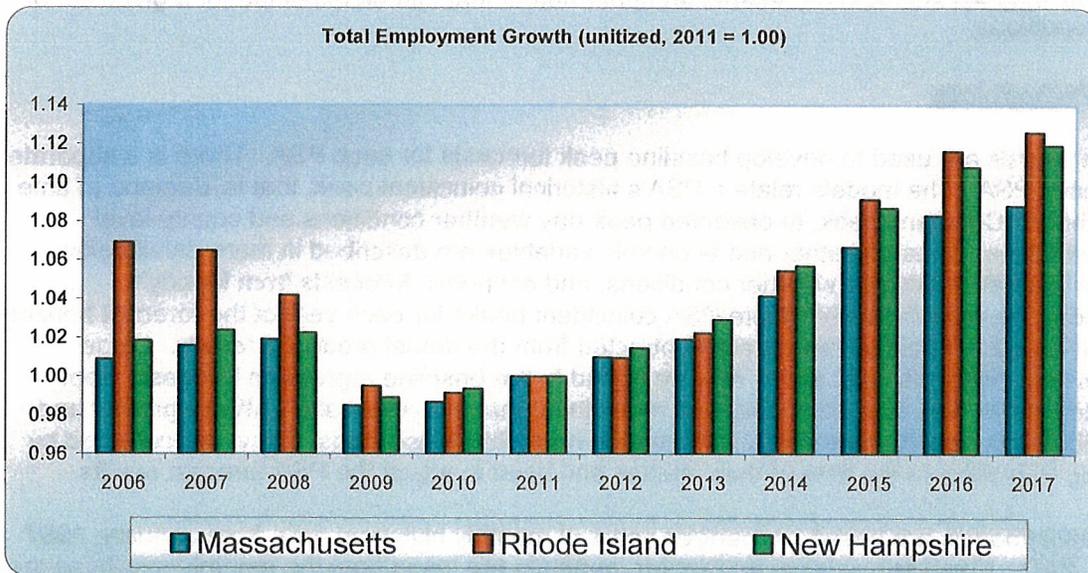
Regional Economic Drivers

Moody's Economy.com provides historical and forecasted economic conditions at the county level. Charts 7a, b and 8a, b, c summarize the historical and forecast values of the economic variables for the states included in the Company's New Hampshire service territory. Economy.com's *county-level* forecasts are used in the PSA forecasting models. For presentation purposes, the state-level values are shown on Charts 7 and 8. Each PSA is assigned to a county based on the PSA's location. While not a perfect match with defined PSAs, this process allows for a better correlation of PSA peak demand growth and underlying area economic activity than does the use of state or national economic forecasts alone. For most models, county-level employment and number of households are combined, with employment weighted 60% and households weighted 40%, to create a single monthly economic index variable, EconIndex (2005=1.00).

In general Moody's assumes that the economic recovery that began in 2009 will continue throughout the forecast period. Additionally, New Hampshire is expected to have one of the highest economic growths in the area (Rhode Island and Massachusetts are included here for comparison). Five and fifteen-year employment growth rates are projected at 2.1% and 1.3% respectively. Long term, the fifteen year growth in the number of households is projected at 0.6% annually.

Regional employment, along with the number of households, is a key driver in the PSA forecast.

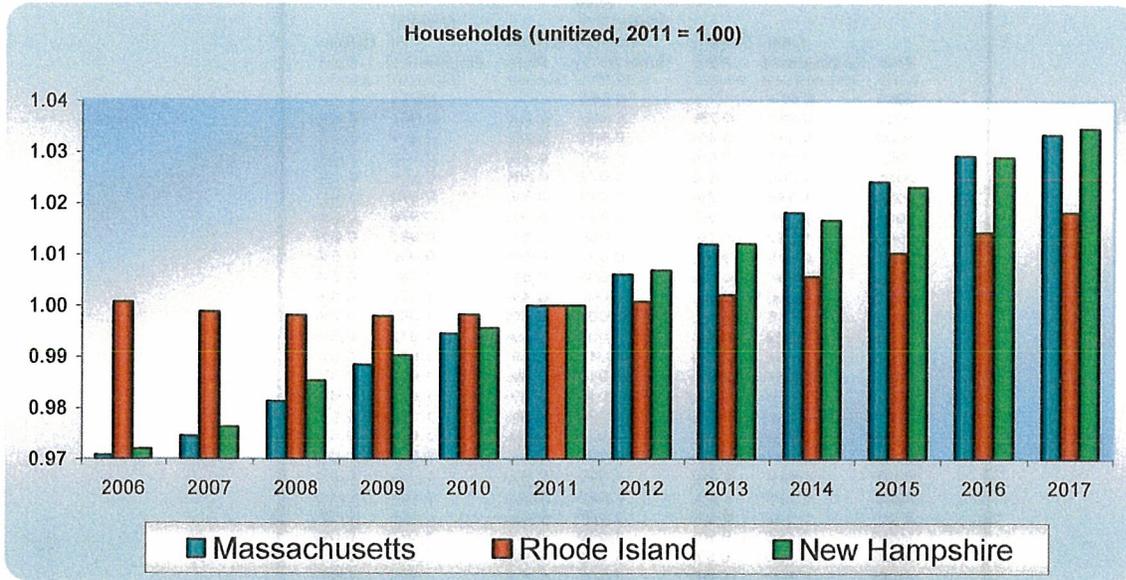
**Chart 7a
 Total Employment**



As shown, the Rhode Island and New Hampshire employment growth rates are projected to outpace those for Massachusetts over the next five years.

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Chart 7b
Households



As shown, the Massachusetts and New Hampshire growth rates in number of Households are projected to outpace those for Rhode Island.

Charts 8c shows the historical and projected values for the economic indicators for New Hampshire.

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Chart 8c

(New Hampshire Counties of Rockingham and Grafton)

Year	Total Employment	Growth Rate	Real Disposable Income (\$mill 2005)	Growth Rate	Number of Households	Growth Rate
2001	0.971		0.955		0.913	
2002	0.963	-0.7%	0.959	0.4%	0.927	1.5%
2003	0.960	-0.4%	0.963	0.4%	0.937	1.1%
2004	0.984	2.5%	0.967	0.4%	0.946	1.0%
2005	1.000	1.6%	0.972	0.5%	0.957	1.2%
2006	1.018	1.8%	0.977	0.5%	0.972	1.5%
2007	1.024	0.5%	0.981	0.5%	0.976	0.5%
2008	1.022	-0.1%	0.986	0.5%	0.985	0.9%
2009	0.989	-3.2%	0.991	0.5%	0.990	0.5%
2010	0.994	0.5%	0.996	0.5%	0.996	0.5%
2011	1.000	0.6%	1.000	0.4%	1.000	0.4%
2012	1.015	1.5%	1.004	0.4%	1.007	0.7%
2013	1.029	1.4%	1.008	0.4%	1.012	0.5%
2014	1.057	2.7%	1.012	0.4%	1.017	0.5%
2015	1.087	2.8%	1.015	0.3%	1.023	0.6%
2016	1.108	1.9%	1.018	0.3%	1.029	0.6%
2017	1.119	1.0%	1.021	0.3%	1.035	0.6%
2018	1.128	0.8%	1.024	0.3%	1.040	0.5%
2019	1.137	0.8%	1.027	0.3%	1.046	0.6%
2020	1.147	0.9%	1.030	0.3%	1.052	0.6%
2021	1.159	1.0%	1.033	0.3%	1.058	0.6%
2022	1.169	0.9%	1.036	0.3%	1.064	0.6%
2023	1.180	0.9%	1.040	0.4%	1.070	0.6%
2024	1.190	0.9%	1.044	0.4%	1.076	0.5%
2025	1.200	0.8%	1.048	0.4%	1.082	0.5%
2026	1.209	0.8%	1.053	0.5%	1.087	0.5%

Compound Annual Growth:						
Ten-Year	2001-2011	0.3%		0.5%		0.9%
Five-Year	2006-2011	-0.4%		0.5%		0.6%
Five-Year	2011-2016	2.1%		0.4%		0.6%
Ten-Year	2011-2021	1.5%		0.3%		0.6%
Fifteen-Year	2011-2026	1.3%		0.3%		0.6%

Source: Moody's Economy.com, January 2012 release.

PSA Load Data

PSA load data were provided by National Grid's distribution planning engineers. Data includes monthly peaks at time of the company peak and the PSA coincident peaks (each PSA's highest peak demand). This data is collected from remote access pulse recorders (RAPRs) located at tie-line and substation metering points that define the PSAs. The historical PSA loads collected for the seasonal peaks are shown along with their forecasted values in Appendices E-F.

Weather Data

Peak day weather data was collected from the Concord weather station located near The Company's New Hampshire service territory. The Concord, New Hampshire weather station is a first-order weather station for which the quality of data is high. The following peak-day temperature concepts were collected for each weather station:

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- Maximum Temperature Humidity Index (THI) on the day of the peak⁴
- Maximum THI for the day before the peak
- Maximum THI two days before the peak
- Maximum temperature on the day of the peak, for one day prior and for two days prior
- Minimum temperature on the day of the peak, for one day prior and for two days prior

These temperature concepts were used to generate the following weather explanatory variables in the model:

WTHI = Weighted THI: $(0.7 \times \text{maximum THI on the day of the peak}) + (0.2 \times \text{maximum THI on the day before the peak}) + (0.1 \times \text{maximum THI two days before the peak})$;

MaxCDD65 = Maximum Cooling Degree days: (maximum temperature on the day of the peak – 65), or 0 if the maximum temperature is less than or equal to 65;

MaxHDD55 = Maximum Heating Degree days: $(55 - \text{maximum temperature on the day of the peak})$, or 0 if maximum temperature is greater than or equal to 55.

In a number of models these weather variables are multiplied by a time trend in order to capture increasing sensitivity of load to weather over time. The regression models are estimated using the actual historical values of these weather variables. The estimated regression models are then used to simulate historical and forecasted PSA demand under two weather scenarios, normal weather and extreme weather.

Normal Weather Scenario Forecast

The normal weather scenario PSA demand forecast assumes the same normal peak-producing weather for each year of the forecast. This is the most likely weather scenario as there is a 50% probability that actual weather will be more extreme than normal and a 50% probability that the weather will be less extreme than normal.

The normal weather scenario is shown in Appendix K for each weather station. Normal peak-day weather conditions are calculated from historical peak-day weather covering the 20-year period from 1992-2011. A rank and average method is used to derive the seasonal peak-day temperature variables. For each season, monthly peak demands are ranked from the highest to lowest. For each season, the weather associated with the highest peak day is selected. This weather is generally WTHI for summer peaks and HDDs for winter peaks. These peak day weather conditions are then averaged over the 20-year⁵ historical period. These averages (one for the summer and another for the winter) become what is used to weather-adjust actual peaks to produce what is termed “Normal” weather.

Extreme Weather Scenario Forecast

An extreme weather scenario PSA demand forecast is generated to capture the peak demand upper bound for a given set of economic conditions. There is only a 5% probability that actual peak-producing weather will be more extreme than under this scenario. This is what becomes the “1 in 20” extreme scenario used by the distribution planners.

⁴ $\text{THI} = 0.55 \times \text{Temp} + 0.2 \times \text{Dew Point} + 17.5$

⁵ 20-years is selected versus a longer period to capture, in part, any changes in weather patterns that may be occurring. The 20-year average and maximums are also updated each year to represent the most current weather data and patterns.

The same ranking method used to calculate normal seasonal peak day weather conditions is used to calculate extreme weather conditions. For each season, monthly peak demands are ranked from the highest to lowest. For each season, the weather associated with the highest peak day is selected. For each season, the weather conditions associated with the highest of these peak day demands over the 20-year historical period is then selected. These maximums (one for the summer and another for the winter) become what are used to weather-adjust actual peaks to produce what is termed "Extreme" weather.

Appendix K shows the extreme weather scenario for the Concord weather station, including the detailed values for each for both summer and winter.

Town-Level Forecasts

PSA demand forecasts are allocated to towns based on historical trends in town-level MWh growth. The methodology is based on town-level MWh delivery data, covering the period 1996-2011.

Separate equations are estimated for each of the 21 towns in the Company's New Hampshire service territory. The equations relate annual town-level MWh deliveries to a time trend and predict town MWh load for each forecast year. For the forecast period, each town is allocated a portion of overall forecasted PSA MW growth. The portion of PSA MW growth allocated to a town is determined by that town's share in total PSA MWh growth, as predicted by the sum of the individual town-level equations. Town level equations contain a log function in them to flatten each of the individual growth rates over time to be more in line with the long-term PSA growth rates.

This process yields town-level peak demand forecasts that add up to the overall PSA peak demand forecast yet grow at different rates, reflecting different trends in historical town-level MWh growth. Forecasted town-level growth rates and MW demands, as well as the historical town-level MWh levels and trend growth rates upon which the allocation of PSA peak to towns is based, are shown in Appendix I.

Appendix E

2012 Power Supply Area Forecast

Granite State Electric Company

Summer Peak Demands

Electric Forecasting & Analysis

March 31, 2012

Contents

Company Summaries: Summer Peak Demand at Time of Company Peak

Company and PSA Demands with Extreme Weather and Spot Loads. E-1
Company Demands With Spot Loads Under Alternative Weather Scenarios. E-2

Summer Peak Demand at Time of Company Peak

Eastern GEC Co PSA. E-3
Western GEC Co PSA E-4

PSA Non-Coincident Summer Peak Demands

Eastern GEC Co PSA. E-5
Western GEC Co PSA E-6

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 SUMMER PEAK DEMANDS COINCIDENT WITH COMPANY PEAK
 ACTUAL HISTORY AND FORECAST WITH EXTREME WEATHER AND DSM (MW)

Year	Mo	Sum of		Eastern PSA	Growth Rate	Western PSA	Growth Rate
		Granite State PSAs	Growth Rate				
2001	8	162.852	12.7%	86.343	15.2%	76.509	10.0%
2002	8	174.215	7.0%	93.073	7.8%	81.142	6.1%
2003	6	169.611	(2.6%)	91.763	(1.4%)	77.848	(4.1%)
2004	8	169.044	(0.3%)	87.320	(4.8%)	81.724	5.0%
2005	7	184.156	8.9%	98.773	13.1%	85.383	4.5%
2006	8	187.936	2.1%	98.589	(0.2%)	89.347	4.6%
2007	6	179.073	(4.7%)	91.903	(6.8%)	87.170	(2.4%)
2008	6	185.711	3.7%	100.442	9.3%	85.269	(2.2%)
2009	8	185.940	0.1%	92.858	(7.6%)	93.082	9.2%
2010	7	193.384	4.0%	97.357	4.8%	96.027	3.2%
2011	7	197.500	2.1%	102.252	5.0%	95.248	(0.8%)

Forecast

2012	8	198.727	0.6%	100.907	(1.3%)	97.820	2.7%
2013	8	202.182	1.7%	102.308	1.4%	99.874	2.1%
2014	8	206.248	2.0%	103.932	1.6%	102.316	2.4%
2015	8	210.337	2.0%	105.562	1.6%	104.775	2.4%
2016	8	213.935	1.7%	107.066	1.4%	106.869	2.0%
2017	8	217.096	1.5%	108.450	1.3%	108.646	1.7%
2018	8	220.155	1.4%	109.816	1.3%	110.339	1.6%
2019	8	223.221	1.4%	111.199	1.3%	112.022	1.5%
2020	8	226.344	1.4%	112.599	1.3%	113.744	1.5%
2021	8	229.484	1.4%	114.009	1.3%	115.476	1.5%
2022	8	232.590	1.4%	115.415	1.2%	117.175	1.5%
2023	8	235.686	1.3%	116.815	1.2%	118.870	1.4%
2024	8	238.729	1.3%	118.212	1.2%	120.516	1.4%
2025	8	241.788	1.3%	119.608	1.2%	122.180	1.4%
2026	8	244.815	1.3%	120.987	1.2%	123.828	1.3%

Compound Annual Growth

2006-2011 Five Year	1.0%	0.7%	1.3%
2011-2016 Five Year	1.6%	0.9%	2.3%
2011-2021 Ten Year	1.5%	1.1%	1.9%
2011-2026 Fifteen Year	1.4%	1.1%	1.8%

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 COMPANY SUMMER PEAK DEMANDS WITH DSM (MW)

With Actual History					With Weather Adjusted History					Incremental DSM	% of Load
Year	Mo	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate		
2001	8	162.852	.	162.852	.	146.763	.	144.809	.	0.000	0.0%
2002	8	174.215	7.0%	174.215	7.0%	161.373	10.0%	159.251	10.0%	0.000	0.0%
2003	6	169.611	(2.6%)	169.611	(2.6%)	162.693	0.8%	158.303	(0.6%)	0.000	0.0%
2004	8	169.044	(0.3%)	169.044	(0.3%)	168.235	3.4%	165.779	4.7%	0.000	0.0%
2005	7	184.156	8.9%	184.156	8.9%	177.124	5.3%	171.974	3.7%	0.000	0.0%
2006	8	187.936	2.1%	187.936	2.1%	180.981	2.2%	178.190	3.6%	0.000	0.0%
2007	6	179.073	(4.7%)	179.073	(4.7%)	182.070	0.6%	176.379	(1.0%)	0.000	0.0%
2008	6	185.711	3.7%	185.711	3.7%	185.239	1.7%	179.223	1.6%	0.000	0.0%
2009	8	185.940	0.1%	185.940	0.1%	188.173	1.6%	184.879	3.2%	0.000	0.0%
2010	7	193.384	4.0%	193.384	4.0%	190.860	1.4%	184.057	(0.4%)	0.000	0.0%
2011	7	197.500	2.1%	197.500	2.1%	195.056	2.2%	187.923	2.1%	0.000	0.0%

Forecast

2012	8	198.727	0.6%	194.930	(1.3%)	198.727	1.9%	194.930	3.7%	0.000	0.0%
2013	8	202.182	1.7%	198.218	1.7%	202.182	1.7%	198.218	1.7%	0.000	0.0%
2014	8	206.248	2.0%	202.116	2.0%	206.248	2.0%	202.116	2.0%	0.000	0.0%
2015	8	210.337	2.0%	206.038	1.9%	210.337	2.0%	206.038	1.9%	0.000	0.0%
2016	8	213.935	1.7%	209.468	1.7%	213.935	1.7%	209.468	1.7%	0.000	0.0%
2017	8	217.096	1.5%	212.462	1.4%	217.096	1.5%	212.462	1.4%	0.000	0.0%
2018	8	220.155	1.4%	215.354	1.4%	220.155	1.4%	215.354	1.4%	0.000	0.0%
2019	8	223.221	1.4%	218.252	1.3%	223.221	1.4%	218.252	1.3%	0.000	0.0%
2020	8	226.344	1.4%	221.207	1.4%	226.344	1.4%	221.207	1.4%	0.000	0.0%
2021	8	229.484	1.4%	224.180	1.3%	229.484	1.4%	224.180	1.3%	0.000	0.0%
2022	8	232.590	1.4%	227.119	1.3%	232.590	1.4%	227.119	1.3%	0.000	0.0%
2023	8	235.686	1.3%	230.047	1.3%	235.686	1.3%	230.047	1.3%	0.000	0.0%
2024	8	238.729	1.3%	232.922	1.2%	238.729	1.3%	232.922	1.2%	0.000	0.0%
2025	8	241.788	1.3%	235.814	1.2%	241.788	1.3%	235.814	1.2%	0.000	0.0%
2026	8	244.815	1.3%	238.673	1.2%	244.815	1.3%	238.673	1.2%	0.000	0.0%

Compound Annual Growth

2001-2011 Ten Year	1.9%	1.9%	2.9%	2.6%
2006-2011 Five Year	1.0%	1.0%	1.5%	1.1%
2011-2016 Five Year	1.6%	1.2%	1.9%	2.2%
2011-2021 Ten Year	1.5%	1.3%	1.6%	1.8%
2011-2026 Fifteen Year	1.4%	1.3%	1.5%	1.6%

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 EASTERN GECO PSA
 SUMMER PEAK DEMAND WITH DSM AT TIME OF COMPANY PEAK (MW)

		With Actual History				With Weather Adjusted History					
Year	Mo	Extreme	Growth	Normal	Growth	Extreme	Growth	Normal	Growth	Incremental DSM	% of Load
		Weather Scenario	Rate	Weather Scenario	Rate	Weather Scenario	Rate	Weather Scenario	Rate		
2006	8	98.589	.	98.589	.	93.569	.	92.115	.	0.000	0.0%
2007	6	91.903	(6.8%)	91.903	(6.8%)	93.880	0.3%	90.915	(1.3%)	0.000	0.0%
2008	6	100.442	9.3%	100.442	9.3%	95.135	1.3%	92.001	1.2%	0.000	0.0%
2009	8	92.858	(7.6%)	92.858	(7.6%)	96.870	1.8%	95.154	3.4%	0.000	0.0%
2010	7	97.357	4.8%	97.357	4.8%	98.213	1.4%	94.670	(0.5%)	0.000	0.0%
2011	7	102.252	5.0%	102.252	5.0%	99.294	1.1%	95.578	1.0%	0.000	0.0%
Forecast											
2012	8	100.907	(1.3%)	98.929	(3.2%)	100.907	1.6%	98.929	3.5%	0.000	0.0%
2013	8	102.308	1.4%	100.243	1.3%	102.308	1.4%	100.243	1.3%	0.000	0.0%
2014	8	103.932	1.6%	101.780	1.5%	103.932	1.6%	101.780	1.5%	0.000	0.0%
2015	8	105.562	1.6%	103.323	1.5%	105.562	1.6%	103.323	1.5%	0.000	0.0%
2016	8	107.066	1.4%	104.740	1.4%	107.066	1.4%	104.740	1.4%	0.000	0.0%
2017	8	108.450	1.3%	106.036	1.2%	108.450	1.3%	106.036	1.2%	0.000	0.0%
2018	8	109.816	1.3%	107.315	1.2%	109.816	1.3%	107.315	1.2%	0.000	0.0%
2019	8	111.199	1.3%	108.611	1.2%	111.199	1.3%	108.611	1.2%	0.000	0.0%
2020	8	112.599	1.3%	109.924	1.2%	112.599	1.3%	109.924	1.2%	0.000	0.0%
2021	8	114.009	1.3%	111.246	1.2%	114.009	1.3%	111.246	1.2%	0.000	0.0%
2022	8	115.415	1.2%	112.565	1.2%	115.415	1.2%	112.565	1.2%	0.000	0.0%
2023	8	116.815	1.2%	113.878	1.2%	116.815	1.2%	113.878	1.2%	0.000	0.0%
2024	8	118.212	1.2%	115.188	1.2%	118.212	1.2%	115.188	1.2%	0.000	0.0%
2025	8	119.608	1.2%	116.496	1.1%	119.608	1.2%	116.496	1.1%	0.000	0.0%
2026	8	120.987	1.2%	117.788	1.1%	120.987	1.2%	117.788	1.1%	0.000	0.0%
Compound Annual Growth											
2006-2011 Five Year		0.7%		0.7%		1.2%		0.7%			
2011-2016 Five Year		0.9%		0.5%		1.5%		1.8%			
2011-2021 Ten Year		1.1%		0.8%		1.4%		1.5%			
2011-2026 Fifteen Year		1.1%		0.9%		1.3%		1.4%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 WESTERN GECO PSA
 SUMMER PEAK DEMAND WITH DSM AT TIME OF COMPANY PEAK (MW)

		With Actual History				With Weather Adjusted History					
Year	Mo	Extreme	Growth	Normal	Growth	Extreme	Growth	Normal	Growth	Incremental DSM	% of Load
		Weather Scenario	Rate	Weather Scenario	Rate	Weather Scenario	Rate	Weather Scenario	Rate		
2006	8	89.347	.	89.347	.	87.413	.	86.075	.	0.000	0.0%
2007	6	87.170	(2.4%)	87.170	(2.4%)	88.190	0.9%	85.464	(0.7%)	0.000	0.0%
2008	6	85.269	(2.2%)	85.269	(2.2%)	90.103	2.2%	87.221	2.1%	0.000	0.0%
2009	8	93.082	9.2%	93.082	9.2%	91.303	1.3%	89.724	2.9%	0.000	0.0%
2010	7	96.027	3.2%	96.027	3.2%	92.647	1.5%	89.388	(0.4%)	0.000	0.0%
2011	7	95.248	(0.8%)	95.248	(0.8%)	95.763	3.4%	92.345	3.3%	0.000	0.0%
Forecast											
2012	8	97.820	2.7%	96.001	0.8%	97.820	2.1%	96.001	4.0%	0.000	0.0%
2013	8	99.874	2.1%	97.975	2.1%	99.874	2.1%	97.975	2.1%	0.000	0.0%
2014	8	102.316	2.4%	100.337	2.4%	102.316	2.4%	100.337	2.4%	0.000	0.0%
2015	8	104.775	2.4%	102.715	2.4%	104.775	2.4%	102.715	2.4%	0.000	0.0%
2016	8	106.869	2.0%	104.729	2.0%	106.869	2.0%	104.729	2.0%	0.000	0.0%
2017	8	108.646	1.7%	106.426	1.6%	108.646	1.7%	106.426	1.6%	0.000	0.0%
2018	8	110.339	1.6%	108.039	1.5%	110.339	1.6%	108.039	1.5%	0.000	0.0%
2019	8	112.022	1.5%	109.641	1.5%	112.022	1.5%	109.641	1.5%	0.000	0.0%
2020	8	113.744	1.5%	111.283	1.5%	113.744	1.5%	111.283	1.5%	0.000	0.0%
2021	8	115.476	1.5%	112.935	1.5%	115.476	1.5%	112.935	1.5%	0.000	0.0%
2022	8	117.175	1.5%	114.554	1.4%	117.175	1.5%	114.554	1.4%	0.000	0.0%
2023	8	118.870	1.4%	116.169	1.4%	118.870	1.4%	116.169	1.4%	0.000	0.0%
2024	8	120.516	1.4%	117.734	1.3%	120.516	1.4%	117.734	1.3%	0.000	0.0%
2025	8	122.180	1.4%	119.318	1.3%	122.180	1.4%	119.318	1.3%	0.000	0.0%
2026	8	123.828	1.3%	120.886	1.3%	123.828	1.3%	120.886	1.3%	0.000	0.0%
Compound Annual Growth											
=====											
1999-2009 Ten Year		1.3%		1.3%		1.8%		1.4%			
2011-2016 Five Year		2.3%		1.9%		2.2%		2.5%			
2011-2021 Ten Year		1.9%		1.7%		1.9%		2.0%			
2011-2026 Fifteen Year		1.8%		1.6%		1.7%		1.8%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 EASTERN GECO PSA
 PSA NON-COINCIDENT SUMMER PEAK DEMAND WITH DSM (MW)

Year	With Actual History				With Weather Adjusted History				Incremental DSM	% of Load	
	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate			
2006	8	100.226	.	100.226	.	94.176	.	92.713	.	0.000	0.0%
2007	6	91.903	(8.3%)	91.903	(8.3%)	94.489	0.3%	91.506	(1.3%)	0.000	0.0%
2008	6	100.442	9.3%	100.442	9.3%	95.753	1.3%	92.599	1.2%	0.000	0.0%
2009	8	92.858	(7.6%)	92.858	(7.6%)	97.499	1.8%	95.772	3.4%	0.000	0.0%
2010	7	98.015	5.6%	98.015	5.6%	98.851	1.4%	95.284	(0.5%)	0.000	0.0%
2011	7	103.493	5.6%	103.493	5.6%	99.939	1.1%	96.199	1.0%	0.000	0.0%
Forecast											
2012	8	101.562	(1.9%)	99.572	(3.8%)	101.562	1.6%	99.572	3.5%	0.000	0.0%
2013	8	102.973	1.4%	100.894	1.3%	102.973	1.4%	100.894	1.3%	0.000	0.0%
2014	8	104.606	1.6%	102.440	1.5%	104.606	1.6%	102.440	1.5%	0.000	0.0%
2015	8	106.248	1.6%	103.994	1.5%	106.248	1.6%	103.994	1.5%	0.000	0.0%
2016	8	107.761	1.4%	105.420	1.4%	107.761	1.4%	105.420	1.4%	0.000	0.0%
2017	8	109.154	1.3%	106.724	1.2%	109.154	1.3%	106.724	1.2%	0.000	0.0%
2018	8	110.529	1.3%	108.011	1.2%	110.529	1.3%	108.011	1.2%	0.000	0.0%
2019	8	111.921	1.3%	109.316	1.2%	111.921	1.3%	109.316	1.2%	0.000	0.0%
2020	8	113.331	1.3%	110.638	1.2%	113.331	1.3%	110.638	1.2%	0.000	0.0%
2021	8	114.749	1.3%	111.968	1.2%	114.749	1.3%	111.968	1.2%	0.000	0.0%
2022	8	116.165	1.2%	113.296	1.2%	116.165	1.2%	113.296	1.2%	0.000	0.0%
2023	8	117.574	1.2%	114.617	1.2%	117.574	1.2%	114.617	1.2%	0.000	0.0%
2024	8	118.980	1.2%	115.936	1.2%	118.980	1.2%	115.936	1.2%	0.000	0.0%
2025	8	120.385	1.2%	117.253	1.1%	120.385	1.2%	117.253	1.1%	0.000	0.0%
2026	8	121.772	1.2%	118.553	1.1%	121.772	1.2%	118.553	1.1%	0.000	0.0%
Compound Annual Growth											
2006-2011 Five Year		0.6%		0.6%		1.2%		0.7%			
2011-2016 Five Year		0.8%		0.4%		1.5%		1.8%			
2011-2021 Ten Year		1.0%		0.8%		1.4%		1.5%			
2011-2026 Fifteen Year		1.1%		0.9%		1.3%		1.4%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 WESTERN GECCO PSA
 PSA NON-COINCIDENT SUMMER PEAK DEMAND WITH DSM (MW)

Year	With Actual History				With Weather Adjusted History				Incremental DSM	% of Load
	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate		
2006	94.725	.	94.725	.	89.587	.	88.216	.	0.000	0.0%
2007	90.325	(4.6%)	90.325	(4.6%)	90.384	0.9%	87.589	(0.7%)	0.000	0.0%
2008	89.418	(1.0%)	89.418	(1.0%)	92.344	2.2%	89.390	2.1%	0.000	0.0%
2009	94.440	5.6%	94.440	5.6%	93.573	1.3%	91.956	2.9%	0.000	0.0%
2010	97.359	3.1%	97.359	3.1%	94.951	1.5%	91.611	(0.4%)	0.000	0.0%
2011	99.630	2.3%	99.630	2.3%	98.144	3.4%	94.642	3.3%	0.000	0.0%
Forecast										
2012	100.253	0.6%	98.389	(1.2%)	100.253	2.1%	98.389	4.0%	0.000	0.0%
2013	102.358	2.1%	100.411	2.1%	102.358	2.1%	100.411	2.1%	0.000	0.0%
2014	104.861	2.4%	102.832	2.4%	104.861	2.4%	102.832	2.4%	0.000	0.0%
2015	107.381	2.4%	105.270	2.4%	107.381	2.4%	105.270	2.4%	0.000	0.0%
2016	109.526	2.0%	107.333	2.0%	109.526	2.0%	107.333	2.0%	0.000	0.0%
2017	111.348	1.7%	109.073	1.6%	111.348	1.7%	109.073	1.6%	0.000	0.0%
2018	113.084	1.6%	110.726	1.5%	113.084	1.6%	110.726	1.5%	0.000	0.0%
2019	114.808	1.5%	112.368	1.5%	114.808	1.5%	112.368	1.5%	0.000	0.0%
2020	116.573	1.5%	114.051	1.5%	116.573	1.5%	114.051	1.5%	0.000	0.0%
2021	118.347	1.5%	115.743	1.5%	118.347	1.5%	115.743	1.5%	0.000	0.0%
2022	120.089	1.5%	117.403	1.4%	120.089	1.5%	117.403	1.4%	0.000	0.0%
2023	121.827	1.4%	119.058	1.4%	121.827	1.4%	119.058	1.4%	0.000	0.0%
2024	123.513	1.4%	120.663	1.3%	123.513	1.4%	120.663	1.3%	0.000	0.0%
2025	125.219	1.4%	122.285	1.3%	125.219	1.4%	122.285	1.3%	0.000	0.0%
2026	126.908	1.3%	123.892	1.3%	126.908	1.3%	123.892	1.3%	0.000	0.0%
Compound Annual Growth										
2006-2011 Five Year	1.0%		1.0%		1.8%		1.4%			
2011-2016 Five Year	1.9%		1.5%		2.2%		2.5%			
2011-2021 Ten Year	1.7%		1.5%		1.9%		2.0%			
2011-2026 Fifteen Year	1.6%		1.5%		1.7%		1.8%			

Appendix F
2012 Power Supply Area Forecast
Granite State Electric Company
Winter Peak Demands

Electric Forecasting & Analysis

March 31, 2012

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PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 WINTER PEAK DEMANDS COINCIDENT WITH COMPANY PEAK
 ACTUAL HISTORY AND FORECAST WITH EXTREME WEATHER AND DSM
 (MW)

Year	Mo	Sum of		Eastern PSA	Growth Rate	Western PSA	Growth Rate
		Granite State PSAs	Growth Rate				
2005	12	147.388	(0.9%)	73.062	(2.4%)	74.326	0.7%
2007	2	142.565	(3.3%)	67.180	(8.1%)	75.385	1.4%
2007	12	144.924	1.7%	70.100	4.3%	74.824	(0.7%)
2008	12	126.865	(12.5%)	69.006	(1.6%)	57.859	(22.7%)
2009	12	140.269	10.6%	65.133	(5.6%)	75.136	29.9%
2011	1	149.805	6.8%	71.130	9.2%	78.675	4.7%

Forecast

2012	1	155.593	3.9%	68.348	(3.9%)	87.245	10.9%
2013	1	157.451	1.2%	68.585	0.3%	88.867	1.9%
2014	1	159.788	1.5%	68.833	0.4%	90.956	2.4%
2015	1	162.557	1.7%	69.256	0.6%	93.300	2.6%
2016	1	165.074	1.5%	69.607	0.5%	95.467	2.3%
2017	1	167.059	1.2%	69.818	0.3%	97.241	1.9%
2018	1	168.755	1.0%	69.951	0.2%	98.804	1.6%
2019	1	170.415	1.0%	70.090	0.2%	100.325	1.5%
2020	1	172.107	1.0%	70.247	0.2%	101.860	1.5%
2021	1	173.853	1.0%	70.419	0.2%	103.434	1.5%
2022	1	175.583	1.0%	70.595	0.2%	104.988	1.5%
2023	1	177.295	1.0%	70.765	0.2%	106.530	1.5%
2024	1	178.968	0.9%	70.929	0.2%	108.039	1.4%
2025	1	180.623	0.9%	71.093	0.2%	109.529	1.4%
2026	1	182.280	0.9%	71.251	0.2%	111.029	1.4%

Compound Annual Growth

2006-2011 Five Year	0.3%	(0.5%)	1.1%
2011-2016 Five Year	2.0%	(0.4%)	3.9%
2011-2021 Ten Year	1.5%	(0.1%)	2.8%
2011-2026 Fifteen Year	1.3%	0.0%	2.3%

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 COMPANY WINTER PEAK DEMANDS WITH DSM
 (MW)

With Actual History						With Weather Adjusted History						Incremental DSM	% of Load
Year	Mo	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate				
2005	12	147.388	.	147.388	.	141.394	.	135.414	.	0.000	0.0%		
2007	2	142.565	(3.3%)	142.565	(3.3%)	146.175	3.4%	139.920	3.3%	0.000	0.0%		
2007	12	144.924	1.7%	144.924	1.7%	144.964	(0.8%)	138.452	(1.0%)	0.000	0.0%		
2008	12	126.865	(12.5%)	126.865	(12.5%)	127.330	(12.2%)	120.553	(12.9%)	0.000	0.0%		
2009	12	140.269	10.6%	140.269	10.6%	145.331	14.1%	138.289	14.7%	0.000	0.0%		
2011	1	149.805	6.8%	149.805	6.8%	153.113	5.4%	147.082	6.4%	0.000	0.0%		
Forecast													
2012	1	155.593	3.9%	149.349	(0.3%)	155.593	1.6%	149.349	1.5%	0.000	0.0%		
2013	1	157.451	1.2%	150.995	1.1%	157.451	1.2%	150.995	1.1%	0.000	0.0%		
2014	1	159.788	1.5%	153.120	1.4%	159.788	1.5%	153.120	1.4%	0.000	0.0%		
2015	1	162.557	1.7%	155.675	1.7%	162.557	1.7%	155.675	1.7%	0.000	0.0%		
2016	1	165.074	1.5%	157.981	1.5%	165.074	1.5%	157.981	1.5%	0.000	0.0%		
2017	1	167.059	1.2%	159.753	1.1%	167.059	1.2%	159.753	1.1%	0.000	0.0%		
2018	1	168.755	1.0%	161.237	0.9%	168.755	1.0%	161.237	0.9%	0.000	0.0%		
2019	1	170.415	1.0%	162.684	0.9%	170.415	1.0%	162.684	0.9%	0.000	0.0%		
2020	1	172.107	1.0%	164.164	0.9%	172.107	1.0%	164.164	0.9%	0.000	0.0%		
2021	1	173.853	1.0%	165.698	0.9%	173.853	1.0%	165.698	0.9%	0.000	0.0%		
2022	1	175.583	1.0%	167.215	0.9%	175.583	1.0%	167.215	0.9%	0.000	0.0%		
2023	1	177.295	1.0%	168.715	0.9%	177.295	1.0%	168.715	0.9%	0.000	0.0%		
2024	1	178.968	0.9%	170.175	0.9%	178.968	0.9%	170.175	0.9%	0.000	0.0%		
2025	1	180.623	0.9%	171.618	0.8%	180.623	0.9%	171.618	0.8%	0.000	0.0%		
2026	1	182.280	0.9%	173.062	0.8%	182.280	0.9%	173.062	0.8%	0.000	0.0%		
Compound Annual Growth													
2006-2011 Five Year			0.3%	0.3%			1.6%			1.7%			
2011-2016 Five Year			2.0%	1.1%			1.5%			1.4%			
2011-2021 Ten Year			1.5%	1.0%			1.3%			1.2%			
2011-2026 Fifteen Year			1.3%	1.0%			1.2%			1.1%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 EASTERN PSA
 WINTER PEAK DEMAND WITH DSM AT TIME OF COMPANY PEAK
 (MW)

		With Actual History				With Weather Adjusted History					
Year	Mo	Extreme	Growth	Normal	Growth	Extreme	Growth	Normal	Growth	Incremental DSM	% of Load
		Weather Scenario	Rate	Weather Scenario	Rate	Weather Scenario	Rate	Weather Scenario	Rate		
====	==	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
2005	12	73.062	.	73.062	.	67.075	.	65.343	.	0.000	0.0%
2007	2	67.180	(8.1%)	67.180	(8.1%)	68.192	1.7%	66.192	1.3%	0.000	0.0%
2007	12	70.100	4.3%	70.100	4.3%	67.405	(1.2%)	65.673	(0.8%)	0.000	0.0%
2008	12	69.006	(1.6%)	69.006	(1.6%)	67.117	(0.4%)	65.385	(0.4%)	0.000	0.0%
2009	12	65.133	(5.6%)	65.133	(5.6%)	66.908	(0.3%)	65.176	(0.3%)	0.000	0.0%
2011	1	71.130	9.2%	71.130	9.2%	68.321	2.1%	66.768	2.4%	0.000	0.0%
Forecast											
2012	1	68.348	(3.9%)	66.795	(6.1%)	68.348	0.0%	66.795	0.0%	0.000	0.0%
2013	1	68.585	0.3%	67.031	0.4%	68.585	0.3%	67.031	0.4%	0.000	0.0%
2014	1	68.833	0.4%	67.279	0.4%	68.833	0.4%	67.279	0.4%	0.000	0.0%
2015	1	69.256	0.6%	67.703	0.6%	69.256	0.6%	67.703	0.6%	0.000	0.0%
2016	1	69.607	0.5%	68.054	0.5%	69.607	0.5%	68.054	0.5%	0.000	0.0%
2017	1	69.818	0.3%	68.264	0.3%	69.818	0.3%	68.264	0.3%	0.000	0.0%
2018	1	69.951	0.2%	68.398	0.2%	69.951	0.2%	68.398	0.2%	0.000	0.0%
2019	1	70.090	0.2%	68.536	0.2%	70.090	0.2%	68.536	0.2%	0.000	0.0%
2020	1	70.247	0.2%	68.694	0.2%	70.247	0.2%	68.694	0.2%	0.000	0.0%
2021	1	70.419	0.2%	68.866	0.3%	70.419	0.2%	68.866	0.3%	0.000	0.0%
2022	1	70.595	0.2%	69.041	0.3%	70.595	0.2%	69.041	0.3%	0.000	0.0%
2023	1	70.765	0.2%	69.212	0.2%	70.765	0.2%	69.212	0.2%	0.000	0.0%
2024	1	70.929	0.2%	69.376	0.2%	70.929	0.2%	69.376	0.2%	0.000	0.0%
2025	1	71.093	0.2%	69.540	0.2%	71.093	0.2%	69.540	0.2%	0.000	0.0%
2026	1	71.251	0.2%	69.697	0.2%	71.251	0.2%	69.697	0.2%	0.000	0.0%
Compound Annual Growth											
=====											
2006-2011	Five Year	(0.5%)		(0.5%)		0.4%		0.4%			
2011-2016	Five Year	(0.4%)		(0.9%)		0.4%		0.4%			
2011-2021	Ten Year	(0.1%)		(0.3%)		0.3%		0.3%			
2011-2026	Fifteen Year	0.0%		(0.1%)		0.3%		0.3%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 WESTERN PSA
 WINTER PEAK DEMAND WITH DSM AT TIME OF COMPANY PEAK
 (MW)

		With Actual History				With Weather Adjusted History					
Year	Mo	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Incremental DSM	% of Load
2005	12	74.326	.	74.326	.	74.318	.	70.070	.	0.000	0.0%
2007	2	75.385	1.4%	75.385	1.4%	77.983	4.9%	73.729	5.2%	0.000	0.0%
2007	12	74.824	(0.7%)	74.824	(0.7%)	77.559	(0.5%)	72.780	(1.3%)	0.000	0.0%
2008	12	57.859	(22.7%)	57.859	(22.7%)	60.213	(22.4%)	55.169	(24.2%)	0.000	0.0%
2009	12	75.136	29.9%	75.136	29.9%	78.423	30.2%	73.113	32.5%	0.000	0.0%
2011	1	78.675	4.7%	78.675	4.7%	84.792	8.1%	80.314	9.8%	0.000	0.0%
Forecast											
2012	1	87.245	10.9%	82.554	4.9%	87.245	2.9%	82.554	2.8%	0.000	0.0%
2013	1	88.867	1.9%	83.964	1.7%	88.867	1.9%	83.964	1.7%	0.000	0.0%
2014	1	90.956	2.4%	85.840	2.2%	90.956	2.4%	85.840	2.2%	0.000	0.0%
2015	1	93.300	2.6%	87.973	2.5%	93.300	2.6%	87.973	2.5%	0.000	0.0%
2016	1	95.467	2.3%	89.927	2.2%	95.467	2.3%	89.927	2.2%	0.000	0.0%
2017	1	97.241	1.9%	91.489	1.7%	97.241	1.9%	91.489	1.7%	0.000	0.0%
2018	1	98.804	1.6%	92.839	1.5%	98.804	1.6%	92.839	1.5%	0.000	0.0%
2019	1	100.325	1.5%	94.148	1.4%	100.325	1.5%	94.148	1.4%	0.000	0.0%
2020	1	101.860	1.5%	95.470	1.4%	101.860	1.5%	95.470	1.4%	0.000	0.0%
2021	1	103.434	1.5%	96.832	1.4%	103.434	1.5%	96.832	1.4%	0.000	0.0%
2022	1	104.988	1.5%	98.173	1.4%	104.988	1.5%	98.173	1.4%	0.000	0.0%
2023	1	106.530	1.5%	99.503	1.4%	106.530	1.5%	99.503	1.4%	0.000	0.0%
2024	1	108.039	1.4%	100.799	1.3%	108.039	1.4%	100.799	1.3%	0.000	0.0%
2025	1	109.529	1.4%	102.078	1.3%	109.529	1.4%	102.078	1.3%	0.000	0.0%
2026	1	111.029	1.4%	103.365	1.3%	111.029	1.4%	103.365	1.3%	0.000	0.0%
Compound Annual Growth											
=====											
2006-2011 Five Year		1.1%		1.1%		2.7%		2.8%			
2011-2016 Five Year		3.9%		2.7%		2.4%		2.3%			
2011-2021 Ten Year		2.8%		2.1%		2.0%		1.9%			
2011-2026 Fifteen Year		2.3%		1.8%		1.8%		1.7%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 EASTERN PSA
 PSA NON-COINCIDENT WINTER PEAK DEMAND WITH DSM
 (MW)

Year	With Actual History				With Weather Adjusted History				Incremental DSM	% of Load
	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate		
2006 12	73.280	.	73.280	.	68.745	.	66.970	.	0.000	0.0%
2007 2	67.180	(8.3%)	67.180	(8.3%)	69.889	1.7%	67.839	1.3%	0.000	0.0%
2008 12	71.005	5.7%	71.005	5.7%	69.082	(1.2%)	67.307	(0.8%)	0.000	0.0%
2009 12	69.288	(2.4%)	69.288	(2.4%)	68.788	(0.4%)	67.012	(0.4%)	0.000	0.0%
2010 12	69.960	1.0%	69.960	1.0%	68.574	(0.3%)	66.799	(0.3%)	0.000	0.0%
2011 1	71.130	1.7%	71.130	1.7%	70.022	2.1%	68.430	2.4%	0.000	0.0%
Forecast										
2012 1	70.049	(1.5%)	68.457	(3.8%)	70.049	0.0%	68.457	0.0%	0.000	0.0%
2013 1	70.292	0.3%	68.700	0.4%	70.292	0.3%	68.700	0.4%	0.000	0.0%
2014 1	70.546	0.4%	68.954	0.4%	70.546	0.4%	68.954	0.4%	0.000	0.0%
2015 1	70.980	0.6%	69.388	0.6%	70.980	0.6%	69.388	0.6%	0.000	0.0%
2016 1	71.340	0.5%	69.748	0.5%	71.340	0.5%	69.748	0.5%	0.000	0.0%
2017 1	71.556	0.3%	69.964	0.3%	71.556	0.3%	69.964	0.3%	0.000	0.0%
2018 1	71.692	0.2%	70.100	0.2%	71.692	0.2%	70.100	0.2%	0.000	0.0%
2019 1	71.834	0.2%	70.242	0.2%	71.834	0.2%	70.242	0.2%	0.000	0.0%
2020 1	71.995	0.2%	70.403	0.2%	71.995	0.2%	70.403	0.2%	0.000	0.0%
2021 1	72.172	0.2%	70.580	0.3%	72.172	0.2%	70.580	0.3%	0.000	0.0%
2022 1	72.352	0.2%	70.760	0.3%	72.352	0.2%	70.760	0.3%	0.000	0.0%
2023 1	72.526	0.2%	70.934	0.2%	72.526	0.2%	70.934	0.2%	0.000	0.0%
2024 1	72.695	0.2%	71.103	0.2%	72.695	0.2%	71.103	0.2%	0.000	0.0%
2025 1	72.863	0.2%	71.271	0.2%	72.863	0.2%	71.271	0.2%	0.000	0.0%
2026 1	73.024	0.2%	71.432	0.2%	73.024	0.2%	71.432	0.2%	0.000	0.0%
Compound Annual Growth										
=====										
2006-2011 Five Year	(0.6%)		(0.6%)		0.4%		0.4%			
2011-2016 Five Year	0.1%		(0.4%)		0.4%		0.4%			
2011-2021 Ten Year	0.1%		(0.1%)		0.3%		0.3%			
2011-2026 Fifteen Year	0.2%		0.0%		0.3%		0.3%			

PSA FORECAST 2012
 GRANITE STATE ELECTRIC COMPANY
 WESTERN PSA
 PSA NON-COINCIDENT WINTER PEAK DEMAND WITH DSM
 (MW)

Year	With Actual History				With Weather Adjusted History				Incremental DSM	% of Load	
	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate	Extreme Weather Scenario	Growth Rate	Normal Weather Scenario	Growth Rate			
2006	12	75.285	.	75.285	.	75.128	.	70.833	.	0.000	0.0%
2007	2	75.412	0.2%	75.412	0.2%	78.832	4.9%	74.532	5.2%	0.000	0.0%
2008	12	76.517	1.5%	76.517	1.5%	78.403	(0.5%)	73.572	(1.3%)	0.000	0.0%
2009	12	76.549	0.0%	76.549	0.0%	60.869	(22.4%)	55.769	(24.2%)	0.000	0.0%
2010	12	77.235	0.9%	77.235	0.9%	79.277	30.2%	73.909	32.5%	0.000	0.0%
2011	1	78.675	1.9%	78.675	1.9%	85.715	8.1%	81.188	9.8%	0.000	0.0%
Forecast											
2012	1	88.195	12.1%	83.453	6.1%	88.195	2.9%	83.453	2.8%	0.000	0.0%
2013	1	89.834	1.9%	84.878	1.7%	89.834	1.9%	84.878	1.7%	0.000	0.0%
2014	1	91.946	2.4%	86.775	2.2%	91.946	2.4%	86.775	2.2%	0.000	0.0%
2015	1	94.316	2.6%	88.931	2.5%	94.316	2.6%	88.931	2.5%	0.000	0.0%
2016	1	96.507	2.3%	90.906	2.2%	96.507	2.3%	90.906	2.2%	0.000	0.0%
2017	1	98.300	1.9%	92.485	1.7%	98.300	1.9%	92.485	1.7%	0.000	0.0%
2018	1	99.880	1.6%	93.850	1.5%	99.880	1.6%	93.850	1.5%	0.000	0.0%
2019	1	101.418	1.5%	95.173	1.4%	101.418	1.5%	95.173	1.4%	0.000	0.0%
2020	1	102.969	1.5%	96.510	1.4%	102.969	1.5%	96.510	1.4%	0.000	0.0%
2021	1	104.561	1.5%	97.886	1.4%	104.561	1.5%	97.886	1.4%	0.000	0.0%
2022	1	106.131	1.5%	99.242	1.4%	106.131	1.5%	99.242	1.4%	0.000	0.0%
2023	1	107.690	1.5%	100.587	1.4%	107.690	1.5%	100.587	1.4%	0.000	0.0%
2024	1	109.215	1.4%	101.897	1.3%	109.215	1.4%	101.897	1.3%	0.000	0.0%
2025	1	110.722	1.4%	103.189	1.3%	110.722	1.4%	103.189	1.3%	0.000	0.0%
2026	1	112.238	1.4%	104.490	1.3%	112.238	1.4%	104.490	1.3%	0.000	0.0%
Compound Annual Growth											
2006-2011 Five Year		0.9%		0.9%		2.7%		2.8%			
2011-2016 Five Year		4.2%		2.9%		2.4%		2.3%			
2011-2021 Ten Year		2.9%		2.2%		2.0%		1.9%			
2011-2026 Fifteen Year		2.4%		1.9%		1.8%		1.7%			

Appendix I

2012 Power Supply Area Forecast

Sub Area Forecast Towns

Customer Organization
Electric Forecasting & Analysis

March 15, 2012

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Sub Area Forecast
Towns
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Town Level Peak Demand Growth

	vs.Extreme 2011	vs.Actual 2011															vs.Extreme 2011		vs.Actual 2011	
	2012	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2011-2021	2011-2026	2011-2021	2011-2026
Granite State Electric Company																				
East GECO	1.6%	-1.9%	1.4%	1.6%	1.6%	1.4%	1.3%	1.3%	1.3%	1.3%	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%	1.4%	1.3%	1.0%	1.1%
Derry	10.2%	6.4%	9.9%	8.8%	7.6%	6.5%	5.6%	4.9%	4.4%	3.9%	3.5%	3.1%	2.8%	2.6%	2.3%	2.1%	6.5%	5.2%	6.1%	4.9%
Pelham	3.1%	-0.4%	2.9%	2.8%	2.6%	2.3%	2.0%	1.9%	1.8%	1.7%	1.6%	1.6%	1.5%	1.4%	1.4%	1.3%	2.3%	2.0%	1.9%	1.8%
Salem, NH	1.1%	-2.4%	0.9%	1.1%	1.2%	1.1%	1.0%	1.0%	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	0.7%	0.8%
Windham	2.2%	-1.3%	2.0%	2.1%	2.0%	1.8%	1.6%	1.5%	1.5%	1.4%	1.4%	1.4%	1.3%	1.3%	1.3%	1.2%	1.7%	1.6%	1.4%	1.4%
West GECO	2.1%	0.6%	2.1%	2.4%	2.4%	2.0%	1.7%	1.6%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.3%	1.9%	1.7%	1.7%	1.6%
Acworth	0.7%	-0.8%	0.6%	1.2%	1.3%	1.1%	0.9%	0.9%	1.0%	1.1%	1.1%	1.1%	1.2%	1.1%	1.2%	1.2%	1.0%	1.0%	0.8%	0.9%
Alstead	0.7%	-0.8%	0.7%	1.2%	1.4%	1.1%	0.9%	0.9%	1.0%	1.1%	1.1%	1.1%	1.2%	1.1%	1.2%	1.2%	1.0%	1.1%	0.9%	1.0%
Bath	4.9%	3.4%	4.9%	4.8%	4.4%	3.7%	3.1%	2.8%	2.5%	2.4%	2.3%	2.1%	2.0%	1.8%	1.7%	1.7%	3.6%	3.0%	3.4%	2.9%
Canaan	1.4%	-0.2%	1.3%	1.8%	1.8%	1.5%	1.2%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.2%	1.3%	1.2%	1.4%	1.4%	1.2%	1.3%
Charlestown, NH	2.6%	1.0%	2.5%	2.8%	2.7%	2.2%	1.9%	1.7%	1.7%	1.7%	1.6%	1.6%	1.5%	1.4%	1.4%	1.4%	2.1%	1.9%	2.0%	1.8%
Cornish	1.4%	-0.2%	1.3%	1.8%	1.8%	1.5%	1.2%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.2%	1.3%	1.3%	1.4%	1.4%	1.2%	1.3%
Enfield	1.3%	-0.2%	1.3%	1.7%	1.8%	1.5%	1.2%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.2%	1.3%	1.2%	1.4%	1.3%	1.2%	1.2%
Grafton, NH	0.7%	-0.8%	0.7%	1.2%	1.4%	1.1%	0.9%	0.9%	1.0%	1.1%	1.1%	1.1%	1.2%	1.1%	1.2%	1.2%	1.0%	1.1%	0.9%	1.0%
Hanover, NH	1.7%	0.1%	1.6%	2.0%	2.0%	1.7%	1.4%	1.3%	1.3%	1.4%	1.4%	1.4%	1.3%	1.3%	1.3%	1.3%	1.6%	1.5%	1.4%	1.4%
Langdon	0.3%	-1.2%	0.2%	0.8%	1.0%	0.8%	0.7%	0.7%	0.8%	0.9%	1.0%	1.0%	1.0%	1.1%	1.1%	1.1%	0.7%	0.8%	0.6%	0.7%
Lebanon	2.7%	1.2%	2.6%	2.9%	2.8%	2.3%	1.9%	1.8%	1.7%	1.7%	1.7%	1.6%	1.5%	1.5%	1.4%	1.4%	2.2%	2.0%	2.1%	1.9%
Marlow	1.1%	-0.4%	1.1%	1.6%	1.7%	1.4%	1.1%	1.1%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.3%	1.3%	1.1%	1.1%
Monroe, NH	0.7%	-0.8%	0.6%	1.2%	1.3%	1.1%	0.9%	0.9%	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%	1.2%	1.0%	1.0%	0.8%	0.9%
Orange, NH	0.1%	-1.4%	0.0%	0.7%	0.9%	0.7%	0.6%	0.6%	0.7%	0.9%	0.9%	1.0%	1.0%	1.0%	1.0%	1.1%	0.6%	0.7%	0.4%	0.6%
Plainfield	1.1%	-0.4%	1.0%	1.5%	1.6%	1.3%	1.1%	1.1%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.1%
Surry	2.8%	1.3%	2.8%	3.0%	2.9%	2.4%	2.0%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	1.4%	1.4%	2.3%	2.0%	2.1%	1.9%
Walpole	0.8%	-0.7%	0.8%	1.3%	1.4%	1.2%	1.0%	1.0%	1.0%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.1%	0.9%	1.0%

Town Level Peak Demand Growth (MW)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Granite State Electric Company															
East GECO	101.56	102.97	104.61	106.25	107.76	109.15	110.53	111.92	113.33	114.75	116.16	117.57	118.98	120.38	121.77
Derry	0.91	1.00	1.09	1.17	1.25	1.32	1.38	1.44	1.50	1.55	1.60	1.64	1.69	1.73	1.76
Pelham	20.40	20.98	21.58	22.15	22.66	23.13	23.56	23.99	24.40	24.80	25.19	25.56	25.93	26.29	26.63
Salem, NH	76.23	76.89	77.75	78.66	79.50	80.29	81.10	81.94	82.82	83.72	84.64	85.56	86.50	87.45	88.39
Windham	4.02	4.10	4.19	4.27	4.35	4.42	4.48	4.55	4.61	4.68	4.74	4.80	4.86	4.93	4.99
West GECO	100.25	102.36	104.86	107.38	109.53	111.35	113.08	114.81	116.57	118.35	120.09	121.83	123.51	125.22	126.91
Acworth	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30
Alstead	1.49	1.50	1.52	1.54	1.56	1.57	1.59	1.60	1.62	1.64	1.66	1.67	1.69	1.71	1.73
Bath	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Canaan	2.67	2.71	2.76	2.81	2.85	2.88	2.92	2.95	2.99	3.03	3.07	3.11	3.15	3.19	3.23
Charlestown, NH	6.19	6.35	6.52	6.70	6.85	6.97	7.10	7.21	7.33	7.45	7.57	7.68	7.80	7.91	8.02
Cornish	0.22	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.26
Enfield	3.96	4.01	4.08	4.15	4.21	4.27	4.32	4.37	4.42	4.48	4.54	4.60	4.65	4.71	4.77
Grafton, NH	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Hanover, NH	25.56	25.97	26.50	27.04	27.49	27.88	28.25	28.63	29.02	29.42	29.82	30.22	30.61	31.01	31.41
Langdon	0.63	0.63	0.64	0.64	0.65	0.65	0.66	0.66	0.67	0.68	0.68	0.69	0.70	0.70	0.71
Lebanon	52.26	53.64	55.19	56.74	58.05	59.18	60.24	61.28	62.32	63.36	64.37	65.36	66.33	67.29	68.24
Marlow	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Monroe, NH	0.35	0.35	0.36	0.36	0.37	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.40	0.40	0.41
Orange, NH	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Plainfield	1.32	1.34	1.36	1.38	1.40	1.41	1.43	1.44	1.46	1.48	1.50	1.51	1.53	1.55	1.57
Surry	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Walpole	5.21	5.25	5.32	5.39	5.46	5.51	5.56	5.62	5.68	5.75	5.81	5.88	5.95	6.02	6.09

Annual MWh Energy and Trend Growth by Power Supply Area and Town

PSA / Towns	Trend Growth Rate	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
		Granite State Electric Company															
Eastern Geco																	
Derry	7.5%	1,115	1,103	1,060	1,099	1,169	1,260	1,672	2,103	2,418	3,656	4,249	4,836	4,719	4,654	4,622	3,302
Pelham	3.1%	50,167	49,283	53,699	58,824	61,792	64,742	67,480	71,904	74,176	78,029	80,718	76,777	70,964	71,706	78,336	79,009
Salem, NH	0.5%	280,634	281,048	285,774	297,021	283,993	296,295	305,086	310,444	315,581	327,052	309,436	307,926	278,267	288,477	292,805	301,240
Windham	2.0%	11,755	13,124	12,788	13,599	13,666	14,021	14,241	14,954	16,206	17,092	16,207	16,242	15,716	15,194	15,895	15,716
Western Geco																	
Acworth	0.8%	1,189	1,193	1,197	1,202	1,249	1,239	1,159	1,365	1,306	1,278	1,284	1,282	1,149	1,240	1,286	1,334
Alstead	0.6%	7,092	7,070	7,073	7,367	7,379	7,421	7,264	7,993	8,068	8,081	7,874	7,690	6,863	7,552	7,718	7,738
Bath	4.0%	38	27	30	30	29	33	37	39	49	62	72	58	49	57	64	67
Canaan	1.4%	11,233	11,333	11,563	11,774	12,166	12,126	12,138	12,601	12,882	13,463	13,606	13,644	12,166	13,588	13,772	13,778
Charlestown, NH	3.3%	19,300	19,578	20,007	20,563	21,395	21,817	21,124	22,009	22,708	23,799	24,401	26,159	26,440	27,145	29,054	31,531
Cornish	2.2%	805	909	913	939	924	978	999	1,065	1,059	1,058	1,020	1,021	899	1,041	1,089	1,117
Enfield	1.3%	16,841	16,760	16,704	17,568	18,174	18,423	18,492	19,189	19,392	20,096	20,265	20,536	18,651	19,774	19,907	20,409
Grafton, NH	1.3%	48	51	61	67	69	72	88	75	75	74	63	64	55	68	63	58
Hanover, NH	2.0%	97,153	97,350	100,894	105,175	107,722	111,339	114,245	114,258	114,794	119,797	122,074	122,500	121,685	121,956	120,514	131,350
Langdon	0.3%	3,132	3,145	3,111	3,208	3,160	3,101	2,984	3,274	2,936	2,990	2,981	2,980	2,813	3,199	3,153	3,281
Lebanon	3.0%	171,555	173,163	183,241	188,863	194,037	204,139	207,788	217,624	232,078	248,211	251,109	259,409	245,261	258,947	262,197	265,790
Marlow	3.2%	24	34	37	41	41	34	34	32	37	42	43	40	34	33	38	39
Monroe, NH	0.1%	1,812	1,693	1,712	1,814	1,789	1,682	1,693	1,754	1,792	1,832	1,813	1,833	1,825	1,849	1,849	1,827
Orange, NH	-0.2%	248	245	249	255	249	343	231	232	243	250	253	240	220	253	251	242
Plainfield	1.2%	5,690	5,842	5,737	6,058	6,222	6,292	6,241	6,498	6,808	6,898	6,747	6,747	6,092	6,408	6,500	6,838
Surry	2.6%	194	186	182	180	215	229	231	258	286	300	286	290	247	271	288	287
Walpole	0.8%	23,979	23,740	24,782	24,818	24,736	25,185	25,172	25,926	26,257	27,251	26,867	26,795	24,048	25,889	26,566	26,969

Appendix J

2012 Power Supply Area Forecast

Regression Results

Customer Organization
Electric Forecasting & Analysis

March 31, 2012

Appendix J
Regression Results
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Granite State	
Eastern New Hampshire	J-1
Western New Hampshire	J-3

2012 PSA Forecast - Granite State
 Eastern Model

The AUTOREG Procedure

Dependent Variable Eastern_CP
 Eastern_CP

Ordinary Least Squares Estimates

SSE	4012.10304	DFE	173
MSE	23.19135	Root MSE	4.81574
SBC	1197.68292	AIC	1145.81497
MAE	3.56800121	AICC	1148.97776
MAPE	5.32271225	Regress R-Square	0.8576
Durbin-Watson	1.4997	Total R-Square	0.8576

Variable	DF	Estimate	Standard Error	t Value	Approx Pr > t
Intercept	1	39.6061	6.4375	6.15	<.0001
wthiTrend	1	0.0393	0.004845	8.12	<.0001
CumMinHDD	1	0.0757	0.0371	2.04	0.0431
Econ_RK_I	1	17.1044	5.4339	3.15	0.0019
Feb1997	1	-17.6530	4.9330	-3.58	0.0004
Apr	1	-13.6876	1.3706	-9.99	<.0001
May	1	-9.8891	1.4437	-6.85	<.0001
Oct	1	-10.1243	1.4150	-7.16	<.0001
Summer2002on	1	11.5873	1.4794	7.83	<.0001
Jun2011	1	-25.2125	4.9269	-5.12	<.0001
Oct2010	1	-7.8937	4.9992	-1.58	0.1162
May2010	1	13.7012	5.0855	2.69	0.0078
Sep2009	1	-18.9270	4.8972	-3.86	0.0002
Jun2009	1	-22.2062	4.9062	-4.53	<.0001
Sep2006	1	-11.8247	4.9109	-2.41	0.0171
Apr2004	1	12.2823	5.0444	2.43	0.0159

Estimates of Autocorrelations

Lag	Covariance	Correlation	-1	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	1	
0	21.2281	1.000000																						*****
1	5.0836	0.239475																						*****

Preliminary MSE 20.0107

2012 PSA Forecast - Granite State
 Eastern Model

The AUTOREG Procedure

Estimates of Autoregressive Parameters

Lag	Coefficient	Standard Error	t Value
1	-0.239475	0.074031	-3.23

Yule-Walker Estimates

SSE	3699.30665	DFE	172
MSE	21.50760	Root MSE	4.63763
SBC	1187.69833	AIC	1132.58863
MAE	3.49224907	AICC	1136.16758
MAPE	5.20232934	Regress R-Square	0.8317
Durbin-Watson	1.7912	Total R-Square	0.8687

Variable	DF	Estimate	Standard Error	t Value	Approx Pr > t
Intercept	1	41.2463	7.8763	5.24	<.0001
wthiTrend	1	0.0425	0.004837	8.78	<.0001
CumMinHDD	1	0.1117	0.0384	2.91	0.0041
Econ_RK_I	1	14.6677	6.4901	2.26	0.0251
Feb1997	1	-16.3052	4.5865	-3.56	0.0005
Apr	1	-12.3813	1.3182	-9.39	<.0001
May	1	-9.7148	1.3931	-6.97	<.0001
Oct	1	-8.6240	1.2624	-6.83	<.0001
Summer2002on	1	11.8676	1.4957	7.93	<.0001
Jun2011	1	-26.5564	4.5866	-5.79	<.0001
Oct2010	1	-9.6486	4.6703	-2.07	0.0403
May2010	1	17.6009	4.7464	3.71	0.0003
Sep2009	1	-18.5985	4.6111	-4.03	<.0001
Jun2009	1	-20.4846	4.5935	-4.46	<.0001
Sep2006	1	-10.8595	4.6041	-2.36	0.0195
Apr2004	1	11.8374	4.7191	2.51	0.0131

2012 PSA Forecast - Granite State
 Western Model

The SYSLIN Procedure
 Ordinary Least Squares Estimation

Model Western_CP
 Dependent Variable Western_CP
 Label Western_CP

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	17923.07	1194.871	108.80	<.0001
Error	173	1899.991	10.98260		
Corrected Total	188	19823.06			

Root MSE 3.31400 R-Square 0.90415
 Dependent Mean 68.85307 Adj R-Sq 0.89584
 Coeff Var 4.81315

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
Intercept	1	3.424698	5.608170	0.61	0.5422	Intercept
wthiTrend	1	0.039048	0.002995	13.04	<.0001	
MaxHDDTrend	1	0.017700	0.001919	9.22	<.0001	
Econ_GR_I	1	46.68183	5.015148	9.31	<.0001	
Apr	1	-6.83547	0.911828	-7.50	<.0001	
May	1	-3.45459	1.013423	-3.41	0.0008	
Mar1999	1	-9.55258	3.335512	-2.86	0.0047	
May1999	1	-14.2747	3.455375	-4.13	<.0001	
Jun1999	1	-11.1204	3.345135	-3.32	0.0011	
Mar2000	1	-8.61087	3.337717	-2.58	0.0107	
Oct2001	1	-7.40915	3.337649	-2.22	0.0277	
fmSummer2005on	1	6.030965	1.042523	5.78	<.0001	
Sep1998	1	-8.89087	3.339289	-2.66	0.0085	
May2005	1	-9.04282	3.444398	-2.63	0.0094	
May2010	1	8.880139	3.493850	2.54	0.0119	
Dec2008	1	-18.1754	3.375603	-5.38	<.0001	

Durbin-Watson 1.970034
 Number of Observations 189
 First-Order Autocorrelation -0.01021

Appendix K

2012 Power Supply Area Forecast

Weather Data

Electric Forecasting & Analysis

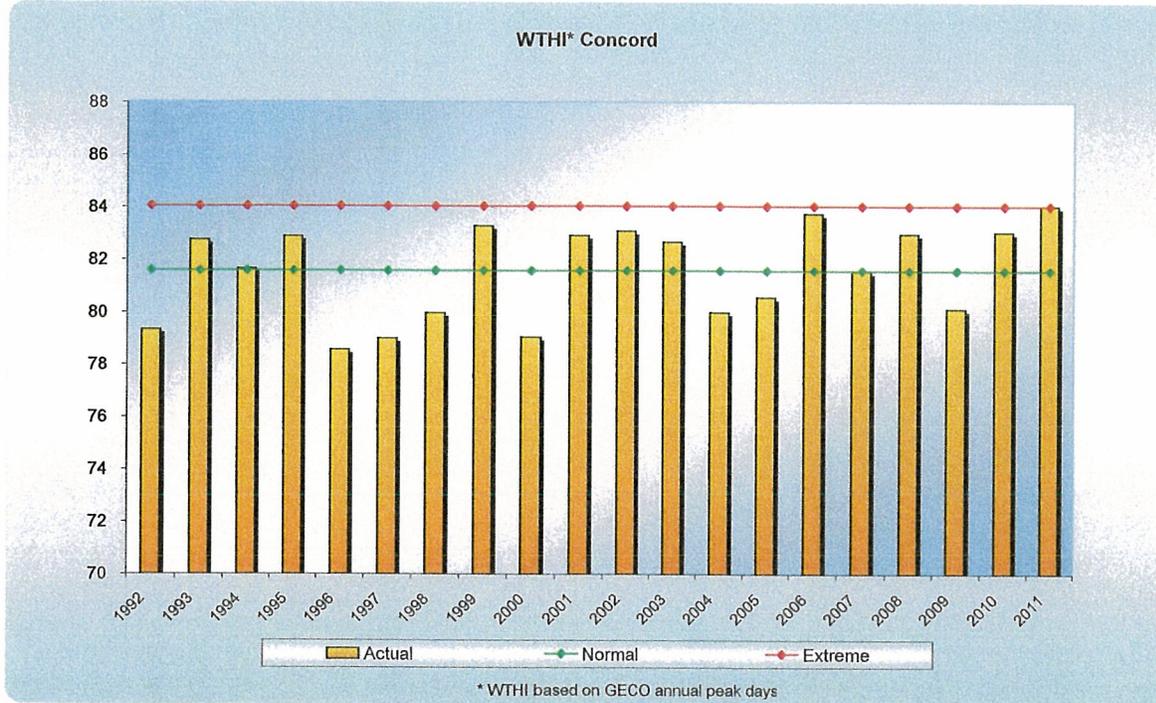
March 31, 2012

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Concord Peak Weather



Concord WTHI for Peak Summer Day

Year	Actual	Normal	Extreme
1992	79.3	81.6	84.1
1993	82.8	81.6	84.1
1994	81.7	81.6	84.1
1995	82.9	81.6	84.1
1996	78.6	81.6	84.1
1997	79.0	81.6	84.1
1998	80.0	81.6	84.1
1999	83.3	81.6	84.1
2000	79.0	81.6	84.1
2001	82.9	81.6	84.1
2002	83.1	81.6	84.1
2003	82.7	81.6	84.1
2004	80.0	81.6	84.1
2005	80.6	81.6	84.1
2006	83.8	81.6	84.1
2007	81.6	81.6	84.1
2008	83.0	81.6	84.1
2009	80.1	81.6	84.1
2010	83.0	81.6	84.1
2011	84.1	81.6	84.1

Concord HDD for Peak Winter Day

Year	Actual	Normal	Extreme
1992	23.0	22.2	37.0
1993	10.0	22.2	37.0
1994	7.0	22.2	37.0
1995	20.0	22.2	37.0
1996	13.0	22.2	37.0
1997	33.0	22.2	37.0
1998	27.0	22.2	37.0
1999	23.0	22.2	37.0
2000	29.0	22.2	37.0
2001	24.0	22.2	37.0
2002	32.0	22.2	37.0
2003	13.0	22.2	37.0
2004	37.0	22.2	37.0
2005	20.0	22.2	37.0
2006	17.0	22.2	37.0
2007	20.0	22.2	37.0
2008	29.0	22.2	37.0
2009	22.0	22.2	37.0
2010	26.0	22.2	37.0
2011	18.0	22.2	37.0