

**REPORT OF**  
**THE RHODE ISLAND**  
**PUBLIC UTILITIES COMMISSION**  
**ON**  
**ELECTRIC RESTRUCTURING**

**Chairman Elia Germani**  
**Commissioner Kate F. Racine**  
**Commissioner Brenda K. Gaynor**

**Submitted pursuant to 39-1-27.1 of the**  
**General Laws of the State of Rhode Island**

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## 1. INTRODUCTION

On August 7, 1996, the Utility Restructuring Act (“URA”) was signed into law. The URA provided that, during the first 5 years of Rhode Island’s transition to a competitive power supply market, the Public Utilities Commission (“Commission”) should monitor the transition and produce reports addressing the following topics:

- Developments in the competitive power supply market in Rhode Island;
- Estimated savings realized by customers as a result of the introduction of retail competition in the power supply market;
- Progress towards implementation of a regional transmission agreement for New England and other reforms implemented by the regional power pool;
- The status of electric industry restructuring activities in other New England states; and
- Recommendations for statutory changes.

The Commission’s First Report on Electric Restructuring (the First Report) was provided on January 1, 1998. This volume contains the Second Report.

As noted in the introduction to the First Report, in the URA, the General Assembly declared that lower retail electricity rates would promote the state’s economy and the health and general welfare of the citizenry, and **that greater competition in the electric industry would result in a decrease in electricity rates over time**. Since the First Report, 3 years have passed. This Second Report focuses particular attention on the impact deregulation has had on electricity prices, in Rhode Island and throughout New England.

## 2. DEVELOPMENTS IN THE RHODE ISLAND POWER SUPPLY

Retail competition in Rhode Island was phased in, beginning on July 1, 1997, as required by the URA. Competition has brought customers options: the Standard Offer Service, competitive market supply, and Last Resort Service. All utility customers as of January 1, 1998, and any new customers who entered the state after that date, could take Standard Offer Service. This provided an option for those customers who, for now, do not wish to enter the competitive market. Last Resort Service provides an option for those who do try competitive supply and then decide to leave the competitive market.

During 1998 almost all Rhode Island customers remained out of the competitive market. Beginning in late 1998 and continuing into 1999, usage supplied by the competitive market increased sharply. Purchases from competitive suppliers peaked in September 1999. By the second quarter of 2000, competitive supply had dropped to about one-tenth of the peak in 1999.

As one would expect, usage on Last Resort Service increased dramatically in 2000 to accommodate those leaving the market. The movement into and out of the competitive market is shown in Figure 1 below.

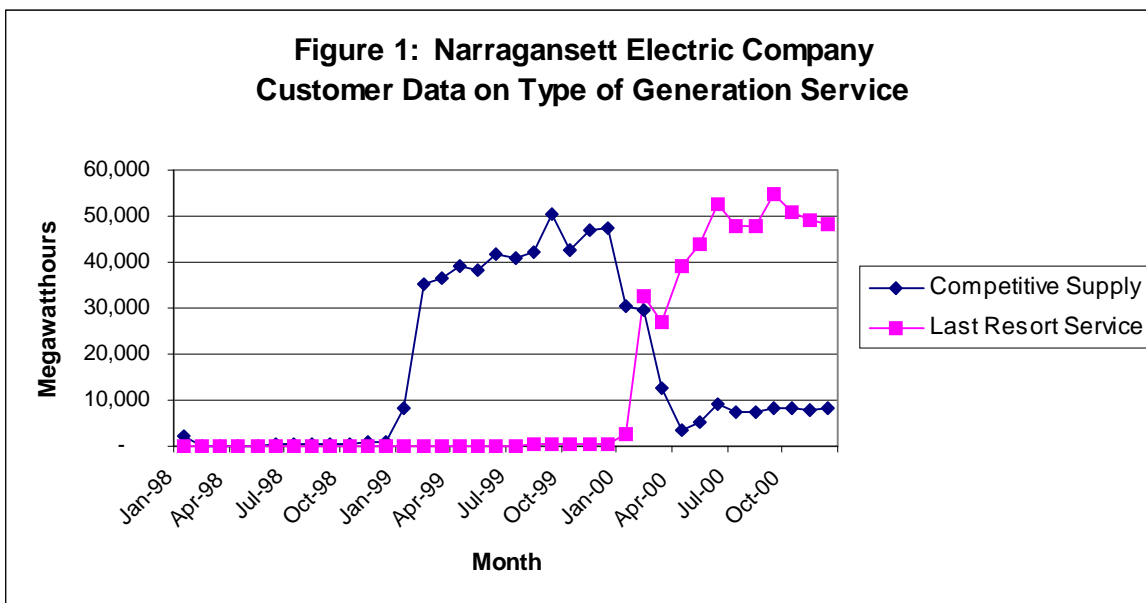


Figure 1 is useful because it shows the rapid shift of electric usage into and out of the competitive market. However, it does not convey a key point: most customers never went to the market. Instead, they remained on Standard Offer Service. This fact is shown quite clearly in the data for September 1998, 1999, and 2000 provided in Table 1 below. September was used for this table because September 1999 was the month with the greatest amount of usage in competitive market. The most recent data available (i.e., December 2000) are similar to that for September 2000.

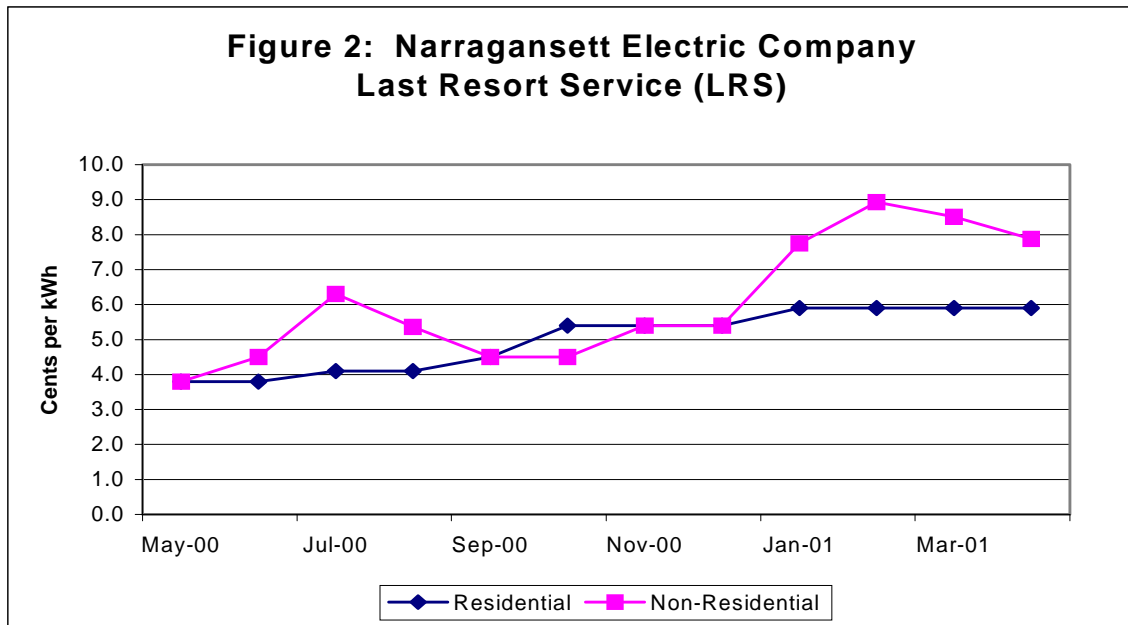
Table 1: Customers and Usage by Service Option						
Time Period	Service Option					
	Standard Offer		Competitive Market		Last Resort	
	No. of Customers	Usage (MWh)	No. of Customers	Usage (MWh)	No. of Customers	Usage (MWh)
September 1998	333,473	449,031	41	497	0	0
September 1999	334,988	417,540	1,569	50,357	225	290
September 2000	460,674	587,453	160	8,172	1,880	54,875

### 3. SAVINGS REALIZED AS A RESULT OF COMPETITION

The actual savings experienced by customers entering the competitive market are known only to those customers. However, the available data suggest that the savings were probably modest.

In 1999, when most customers left the Standard Offer, the Standard Offer price was 3.8¢ per kWh. During 1999, wholesale market prices in New England were generally in the range of 2.6¢ to 3.0¢ per kWh. (See Figure 3 in the next section and the accompanying discussion.) Losses, market costs, and other expenses can add .3¢ to 1.0¢ per kWh to these wholesale prices. Thus, the room for savings compared to the Standard Offer price was limited. This assessment is consistent with testimony by large customers who had been in the market and left, delivered at a Commission hearing on Last Resort Power Supply held on January 18, 2001. The savings they described in their testimony were modest.

Most of the customers who chose to enter the competitive market returned to Last Resort Service. However, abandoning the competitive market did not turn out to be an effective shelter from rising prices. At mid-year 2000, when the migration of customers out of the market and into LRS was about complete, the price of LRS started to rise. This increase is shown in Figure 2 below.



Up until the end of May 2000, the price of Last Resort Service was set equal to the price of Standard Offer Service. Beginning in June 2000, Last Resort Service was priced differently for residential and non-residential customers. For residential customers, the price of Last Resort Service remained the same as Standard Offer Service. For non-residential customers the price of

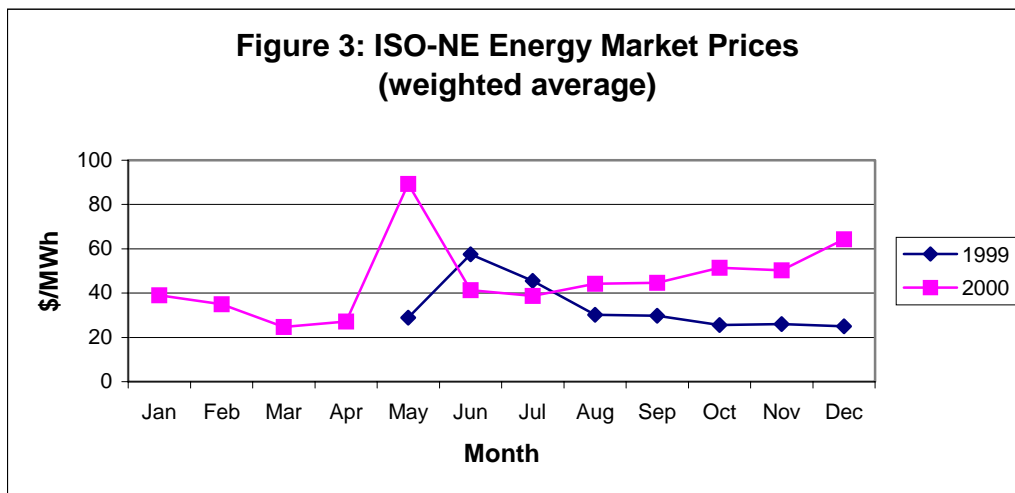
Last Resort Service was moved gradually to the full market price. Residential and non-residential customers were treated differently for a variety of reasons, including the greater range of supply options open to the non-residential customers who account for the vast majority of the Last Resort usage. For the non-residential customers who went to the market in 1999 and then returned to Last Resort Service in 2000, the cost of high-priced Last Resort Service likely offset any savings achieved in the market.

#### 4. PROGRESS TOWARD A NEW ENGLAND POWER MARKET

On May 1, 1999, the New England Independent System Operator (ISO-NE) commenced operation. As the second anniversary of the ISO-NE approaches, its progress to date can be judged based on market prices and development of new generating capacity. In both areas there are reasons for serious concern.

##### Market Prices

ISO-NE operates a wholesale energy market along with markets for installed capacity market and several ancillary services. Here we will discuss each market in turn. Monthly market clearing prices in the energy market are shown in Figure 3 below.



Prices for energy alone started off in May of 1999 at a price of about \$29/MWh. Prices then rose sharply and remained high through July. That increase was in part due to high summer demand as well as flaws in market design that allowed unreasonable price bids to be accepted. Despite frequent price “corrections” by the ISO-NE, the average prices for June and July remain high. As the table shows, for the period August 1999 through April 2000, prices fell to more moderate levels. However, in May 2000, the price moved upward dramatically. This was due to a “spike,” that is a very high price for a few hours on May 8, 2000. A price cap of \$1,000/MWh during the summer of 2000 prevented further dramatic price spikes. However, energy prices remained high for the remainder of 2000, compared to their year earlier levels. In fact, as shown in Figure 3, market prices for October, November, and December were more than twice the

prices for the same months one year earlier. For December 2000, energy prices were about 160 percent above the December 1999 level.

Part of the increase in energy prices in the ISO-NE market over the last few months is due to the increases in the price of natural gas. Recently natural gas prices have increased substantially. Because the price paid to all generators in each hour is the highest bid accepted by ISO-NE, and because the market clearing bids are often from gas-fired units, prices in the ISO-NE energy market tend to follow gas prices. However, increases in gas prices do not explain all of what is going on in the ISO-NE energy market today. This is made clear by an examination of the detailed load and price data for December 1999 and 2000 shown in Figure 4.

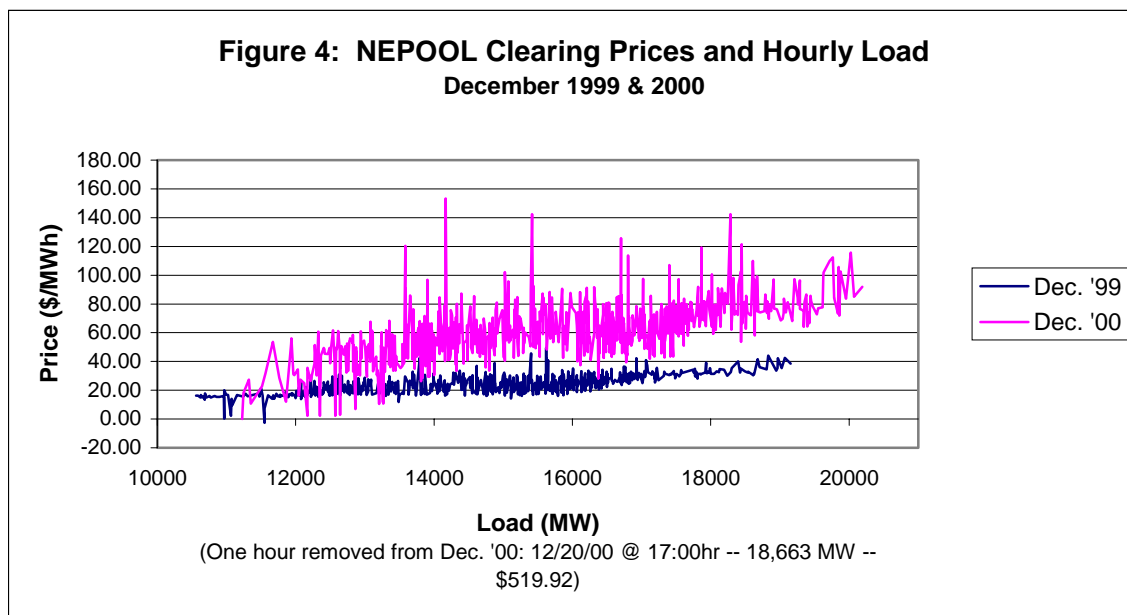


Figure 4 shows the hourly clearing prices in the ISO's Energy Market in the month of December in 1999 and 2000. For each month there are 744 data points, one for each hour of the month. The data are shown in order of increasing demand, from less than 11,000 MW to more than 20,000 MW. The data in Figure 4 show that, for any given level of load, the price per MW was generally higher in December 2000 than in December 1999, as one would expect it to be given the higher gas prices. What is unexpected is the tremendous increase in variation in prices, compared to the 1999 experience. The data for 2000 also show a number of price spikes in which hourly prices reached \$100 to \$150 per MWh, and in one case exceeded \$500 per MWh. In 1999 there were no comparable spikes.

Price spikes are usually associated with scarcity of generating capacity. This can easily occur on hot summer days when the system is straining to meet the peak demand. However, when the system demand is around one-half of annual peak demand as it was for most hours of last December, there is no such justification for prices to spike repeatedly unless the supply of generation is very constrained. In fact, the price data for December 2000 are exactly what one would expect if market participants exercised market power, reducing the supply of generation to enough to create scarcity conditions, leading to occasional price spikes.

To sum up, ISO-NE has had its markets open for 20 months. For the last 5 months, prices for energy have been significantly above year-earlier levels. Part of this increase is due to gas price increases which, in turn, affect fuel costs for some of the market clearing bids that determine ISO-NE hourly prices. However, increases in gas costs do not fully explain what is happening in the ISO-NE energy markets. Examination of detailed data for December suggests that market instability and price spikes may also be important. These features suggest the possibility that market power may be part of the problem.

In order to contend with the possibility of market power problems affecting the regional electricity market, the Rhode Island Commission has joined with the other New England states through the New England Conference of Public Utilities Commissioners (NECPUC) to intervene in numerous dockets before the Federal Energy Regulatory Commission (FERC). The R.I. Commission have been very actively involved in regional issues participating in weekly NECPUC Conference calls, attending dozens of NEPOOL meetings as well as crafting interventions before the FERC.

NECPUC's filing in the FERC's Regional Transmission Organization docket, to cite a current example, calls for a strong and independent market monitoring and mitigation unit to be established in our region. We propose that it be fully staffed and capable of meeting the FERC's standards for a smoothly functioning wholesale electricity market, free from market power abuses. Currently ISO-NE is responsible for market monitoring and mitigation. While the ISO operates with the utmost diligence and integrity, it is our view that it is neither independent enough of market participants nor vested with sufficient resources to ensure that efficient wholesale markets have been developed and that these markets operate free of market flaws.

Further, the R.I. Commission finds that the time is ripe for a thorough reconsideration of ISO-NE's market structures, prices and charges. We intend, through NECPUC and through investigation of other avenues, to address a full range of options. One idea is to change the way wholesale energy prices are settled in New England. ISO-NE operates its energy market as a POOLCO. This means that, while generators are expected to bid based on their costs, they are paid based on the most expensive bid accepted in each hour (the market-clearing price). We are looking carefully into the concept of paying each bidder that is selected to run the amount they bid rather than the price at which the market clears. Another idea we feel is worth exploring further is to require bidders to supply ISO-NE, or a successor organization, with cost information along with their bids. Such information is required now in the PJM-ISO, which operates the regional grid in Pennsylvania, New Jersey and Maryland.

### **New Generating Capacity**

New England is currently experiencing a surge in the construction of new generating capacity. ISO-NE expects generation additions from late 2000 through 2005 to total at least 7,500 MW.<sup>1</sup> This constitutes a large addition to existing generation capacity which amounts to

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<sup>1</sup> NEPOOL installed capability for winter (February). ISO-NE Seasonal Claimed Capability Report as of February 1, 2001, Table 9, 35.



just over 26,000 MW.<sup>2</sup> Additional units, currently permitted, could bring total additions well in excess of 11,000 MW. This means that winter capacity is expected to grow significantly, in the range of 28-45 percent by the 2005. These ISO-NE projections are shown in Table 2.

<b>Table 2: Expected Capacity Additions in New England</b> (3rd quarter 2000 through 2005)				
Project Status	Reference Case		High Case	
	Summer (MW)	Winter (MW)	Summer (MW)	Winter (MW)
Operational	1,459	1,666	1,459	1,666
Under Construction	4,923	5,885	4,923	5,885
Permits Complete	-	-	3,358	4,028
<b>Total</b>	<b>6,382</b>	<b>7,551</b>	<b>9,740</b>	<b>11,579</b>

Most of the units included in Table 2 are gas-fired. Thus, their addition will raise New England's dependence on gas from electric generation significantly. This shift raises a number of concerns:

- Pipeline capacity may not be sufficient to meet demand, particularly in the next few years.
- Increased summer gas demand prevents replenishing of gas reserves for the winter heating season months.
- As gas-fired generation becomes a larger part of the total generating capacity, the electric production becomes vulnerable to gas supply failure or interruption.
- The number of natural gas sources is limited. This makes market power in the gas markets more of a concern.

ISO-NE reflects many of these concerns in a new study of interstate pipeline capacity.<sup>3</sup> In particular, the ISO-NE study points out that, under certain conditions, there could be actual electricity shortages during the winters of 2003 and 2005. Here we would note again the high market prices for electricity experienced at the end of 2000, due in part to high gas prices. With greater dependence on natural gas, the already high prices in the regional power market may easily be exacerbated. The current surge in new construction is expected to level off within the next few years.

## **5. THE STATUS OF RESTRUCTURING IN THE OTHER NEW ENGLAND STATES**

<sup>2</sup> Op. cit. 1.

<sup>3</sup> ISO New England Inc., *Steady-State Analysis of New England's Interstate Pipeline Delivery Capability, 2001-2005*, January 2001.

Three of the six New England states—Vermont, New Hampshire, and Connecticut—have had little or no experience with restructuring to date:

- Vermont’s Working Group on restructuring, formed in 1998, concluded that Vermont should restructure the electric industry. However, the Vermont House has remained skeptical of the benefits of restructuring and hesitant to abolish the consumer protection inherent to regulated rates. Thus far, Vermont has not decided to restructure.
- New Hampshire had aimed for retail competition to begin by mid-year 1998, but a legal challenge from PSNH regarding stranded cost recovery derailed the process. Retail competition is now expected to commence in April 1, 2001.
- Connecticut has restructured. However, retail competition only began on January 1, 2001. Thus, there has been no time for meaningful experience in Connecticut.

Retail competition commenced in Maine in March 2000. This was a delay from the anticipated starting date of January 1, 2000. As one might expect, given the low ISO-NE energy market prices at the end of 1999 and the beginning of 2000, industrial customers found the market attractive. Data from Maine’s three utilities show 30 percent or more of the industrial load in the market today. As in Rhode Island, the move to market has been much less for other types of customers. In particular, far less than 1 percent of Maine’s residential customers have tried the residential market.

From Rhode Island’s perspective, perhaps the most interesting aspect of Maine’s experience has been the rapid escalation of the cost of the power which Maine’s utilities have to purchase to serve customers not in the competitive market. On February 7, the Maine Commission released the prices for this power for medium and large business customers served by Central Maine Power (CMP), Maine’s largest utility. The prices are summarized in Table 3 below.

	<b>3/00 to 2/01</b>	<b>3/01 to 2/02</b>	<b>% Increase</b>
Medium Business	5.90	8.52	44.4
Large Business	5.33	7.95	49.2

The results in Table 3 suggest that the prospects for bringing down Rhode Island’s high Last Resort power supply costs do not look good, at least in the short run.

Retail competition commenced in Massachusetts on March 1, 1998. Customers in Massachusetts have almost 3 years’ worth of experience with the competitive market. Participation in the competitive market rose until November 1999, when energy sales by

competitive suppliers peaked at 9.7 percent of total sales. Participation in the competitive market declined gradually in 2000 and has been stabilizing in the past few months at just below 6 percent of total electricity sales in the state. Supply from the market may decline further as competitive service providers hesitate to take on new customers. Utility.com, has chosen not to sign on any new customers. As a result, residential customers in Massachusetts currently have no choice in electricity service providers, save Servisense.com, which provides electricity bundled with telephone service.

## **6. RECOMMENDATIONS FOR STATUTORY CHANGES**

As a result of the lack of competitive electric suppliers in Rhode Island, it is important that the power supply arranged by Narragansett Electric for both its Standard Offer and Last Resort customers is affordable and procured in a reasonable manner. The electric company should have the flexibility to procure reasonably priced power and be able to meet changing market conditions without statutory constraints on power procurement methods. Present statutes may put constraints on Narragansett's options for power procurement. The Division of Public Utilities and Carriers has been and will continue to work with Narragansett Electric to ensure that it can avail itself of a power supply that meets the appropriate objectives. The ultimate review and approval of any policy implementation growing out of the cooperative work between these parties will be directed by the Public Utilities Commission. Any legislative changes required to meet those objectives will be proposed in a timely manner.