

National Grid

The Narragansett Electric Company

INVESTIGATION AS TO THE  
PROPRIETY OF PROPOSED TARIFF  
CHANGES

Testimony and Schedules of:

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Book 8 of 9

June 1, 2009

Submitted to:

Rhode Island Public Utilities Commission

Docket No. R.I.P.U.C. \_\_\_\_

Submitted by:

**nationalgrid**



THE NARRAGANSETT ELECTRIC COMPANY

d/b/a NATIONAL GRID

Docket No. R.I.P.U.C. \_\_\_\_

Witness: Morrissey

**PRE-FILED DIRECT TESTIMONY**

**OF**

**ALFRED P. MORRISSEY**

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**I. Introduction and Qualifications**

**Q. Please state your name and business address.**

A. My name is Alfred P. Morrissey and my business address is 25 Research Drive,  
Westborough, MA 10582.

**Q. By whom are you employed and in what capacity?**

A. I am employed by National Grid USA Service Company, Inc.<sup>1</sup> as Lead Analyst of  
Electric Load Forecasting in the Energy Portfolio Management Department.

**Q. Please describe your educational background.**

A. I graduated from the University of Massachusetts at Amherst in 1978 with a Bachelor of  
Arts degree in Economics. In 1981, I received a Master of Arts degree in Economics and  
in 1984, a Doctor of Philosophy degree in Economics, both from the University of Notre  
Dame. My dissertation, An Econometric Analysis of Home Energy Expenditures and  
Need, won the Economics Department's "Joan Robinson Award" as the best Economics  
doctoral dissertation in 1984. While at Notre Dame, I taught courses in economics and  
statistics.

**Q. Please describe your business experience.**

A. I have worked in the electric utility industry doing load forecasting and analysis for 26  
years. From 1983 to 1988, I worked as an Energy Analyst in the System Planning  
Department of the American Electric Power ("AEP") Service Corporation in Columbus,

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<sup>1</sup> Throughout this testimony, I will refer to National Grid USA and its subsidiaries as "National Grid." For purposes of clarity, where I intend to refer to The Narragansett Electric Company, I will refer to it as "the Company."

1 Ohio. While at AEP, I developed energy and demand forecasts for several of AEP's  
2 largest operating companies. I also coauthored an article, published in IEEE Transactions  
3 on Power Systems (1988) describing a method we developed to forecast the multiplier  
4 effects of a new industrial plant (or a plant closing) on local employment and electric  
5 load. I also taught evening courses in microeconomics and macroeconomics at the Ohio  
6 State University. In 1988, I resigned my position at AEP and joined the EUA Service  
7 Corporation in West Bridgewater, MA as a Load Forecast Analyst. There I was  
8 responsible for developing and supporting all short- and long-term load forecasts  
9 produced at EUA, including directing the load forecasting efforts of other members of the  
10 Load Forecasting Section. In 1990, I was promoted to Senior Analyst and in 1997 I was  
11 promoted to Supervisor of Load Forecasting. In 2000, I accepted the position of  
12 Principal Analyst in the Load Research Department at National Grid following its merger  
13 with EUA. In 2003, I accepted the position of Lead Analyst responsible for Electric  
14 Load Forecasting in the Finance Department at National Grid. I developed energy sales  
15 and revenue forecasts for National Grid's New England electric distribution companies,  
16 primarily to support corporate financial planning. I also developed annual peak demand  
17 forecasts for the New England companies and 26 electric load areas to support  
18 transmission and distribution planning. In 2008, I continued to perform these functions  
19 and also picked up responsibility for Electric Load Forecasting at National Grid's Upstate  
20 New York electric distribution company. In 2009, my position was moved to the Energy  
21 Portfolio Management Department to take advantage of synergies with gas load  
22 forecasting and add resources to National Grid's electric load forecasting efforts.  
23

1 **Q. Are you a member of any professional organizations or industry committees?**

2 A. I am currently Chair of the NE-ISO Load Forecasting Committee and a member of the  
3 NYISO Load Forecasting Task Force. I am a member of the Edison Electric Institute  
4 (“EEI”) Load Forecasting Group. I am a past Board Member of the New England  
5 Economic Partnership (“NEEP”).  
6

7 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**  
8 **(“Commission”) or any other regulatory commissions?**

9 A. Yes, in 1991 I submitted testimony on behalf of Blackstone Valley Electric Company in  
10 Docket 2016 and in 1992, I submitted testimony in Docket 2036 on behalf of Newport  
11 Electric Corporation. In 2004, I testified before the Commission in Docket 3617.  
12

13 **II. Purpose of Testimony**

14 **Q. What is the purpose of your testimony?**

15 A. I present the Company’s forecast of gigawatthour sales and customer counts because it is  
16 used in the calculation of revenue and in the Company’s fully allocated cost of service  
17 study. I also present the megawatt demand forecast because it is used in the Company’s  
18 fully allocated cost of service study.  
19

20 **III. Gigawatthour Sales Forecast**

21 **Q. Would you please describe the Company’s gigawatt-hour (“gWh”) sales forecast?**

22 A. The forecast was developed in two steps. The first step was an econometric forecast of  
23 gWh sales based on economic conditions, weather, electricity price and days billed only.

1 The econometric forecast assumed no additional energy efficiency savings from  
2 Company-sponsored programs beyond those achieved through the 2008 historic test year.  
3 The second step was to forecast energy efficiency savings – also known as demand-side  
4 management (“DSM”) savings – based on existing DSM programs, their life cycle and  
5 energy efficiency initiatives the Company has committed to for 2009 and 2010.  
6 Differences in the level of DSM savings between the test year and the rate year were used  
7 to adjust the econometric forecast of gWh sales in the 2010 rate year. This adjustment  
8 lowered the econometric forecast of 2010 gWh sales by 29.591 gWh, or 0.4%.  
9

10 **Q. Would you please summarize the econometric forecast of the Company’s gWh**  
11 **sales?**

12 A. The econometric sales forecast is summarized in Schedule NG-APM-1 along with  
13 historical sales data for the period 1990-2008. Schedule NG-APM-2 shows the forecast  
14 compared to weather-normalized sales data for the historical period. The forecast  
15 anticipates a 1.6% drop in gWh sales in 2009 because of the recession and a 1.1%  
16 increase in 2010 as the economy recovers. Overall, the econometric forecast of 2010  
17 gWh sales is 0.5% lower than both actual and weather normalized 2008 gWh sales. Note  
18 that 2008 gWh sales fell 1.9% from actual 2007 sales and 1.0% from weather-normalized  
19 2007 sales. Since 2005, the Company’s gWh sales have declined at an average rate of  
20 1.1% per year. This compares to average growth of 2.1% per year from 1995 to 2005.  
21 So the regional economic slowdown, which began in 2005 and developed into the current  
22 recession, has had a dramatic impact on gWh sales.  
23



1   **Q.    How is the current recession reflected in the gWh sales forecast?**

2    A.    The econometric sales forecast is driven primarily by the Moody's Economy.com  
3       January 2009 forecast of the Rhode Island economy. This economic forecast is  
4       summarized on Schedule NG-APM-3 along with historical data for the period 1990-2008.  
5       Although Moody's economic outlook for Rhode Island has worsened somewhat since  
6       January, the forecast still reflects the current recession and Moody's current time line for  
7       recovery. The January forecast takes into account that, like the US as a whole, Rhode  
8       Island's recession deepened during the fourth quarter of 2008. The unemployment rate  
9       rose to 10%, the second highest in the nation. Overall, Rhode Island employment fell  
10      2.6% in 2008 and Moody's expects another 4.0% decline in 2009. Job losses are  
11      expected to continue into the first quarter of 2010, with the unemployment rate topping  
12      11% before a recovery begins. Rhode Island employment is expected to grow 0.3%  
13      overall in 2010.

14  
15      Other key economic variables follow a similar pattern. Manufacturing employment,  
16      which fell 6.0% in 2008, is expected to fall another 6.3% in 2009 before recovering in  
17      2010 with a 0.8% increase. If so, this will be the only annual increase in Rhode Island  
18      manufacturing employment in at least 18 years. Over the last ten years, Rhode Island  
19      manufacturing employment declined at an average rate of 4.4% per year.  
20      Commercial employment fell 2.3% in 2008, the first decline in 17 years, and is expected  
21      to fall another 3.4% in 2009 before recovering in 2010. Real personal income fell 1.1%  
22      in 2008 and is expected to fall another 1.7% in 2009 before increasing 0.8% in 2010, well  
23      below its historical average. Real gross state product fell 2.1% in 2008, is expected to

1 fall another 1.8% in 2009 and then grow 4.0% in 2010. Population is expected to show  
2 minimal growth overall in 2009 and 2010 after declining slightly over the last five years.  
3 These are all key drivers to the 2010 gWh forecast.  
4

5 **Q. Is Moody's Economy.com a well known forecasting service?**

6 A. Yes, Moody's Economy.com is a leading, independent economic research and  
7 forecasting firm with over 500 clients in 50 countries. Clients include the largest  
8 commercial and investment banks, money managers, insurance companies and other  
9 financial institutions; state governments; various branches of the federal government; and  
10 leading firms in each major US industry. Moody's economic outlook tends to be in line  
11 with that of other reputable forecasting sources such as the Blue Chip Consensus  
12 Forecast, Global Insight and the New England Economic Partnership.  
13

14 **Q. How was Moody's economic forecast used to forecast gWh sales and customer**  
15 **counts?**

16 A. The forecast of gWh sales, before any adjustment for DSM, was developed from  
17 econometric models relating actual monthly gWh sales to economic variables, weather  
18 variables and other explanatory variables affecting the demand for electricity. Separate  
19 models were specified for each of the Company's main revenue classes – residential,  
20 commercial, industrial, streetlighting and resale. Besides economic and weather  
21 variables, the other explanatory variables were the number of days billed, historical  
22 indicator variables and, for the industrial gWh sales model, real electricity price. The  
23 models predicted future gWh sales based on Moody's forecast of the economic variables,

1 the assumption of normal weather and assumptions/forecasts of the other explanatory  
2 variables. Since normal weather was assumed and the estimated impact of the other  
3 explanatory variables was relatively minor compared to economic conditions, the  
4 econometric sales forecast was driven primarily by Moody's economic forecast.  
5 However, the econometric model-produced sales results for the 2010 rate year were  
6 adjusted downward 0.4% to account for the Company's expanded energy efficiency  
7 initiatives.

8  
9 The customer count forecast was derived from models relating the number of customers,  
10 by revenue class, to economic/demographic variables only and were therefore driven  
11 exclusively by Moody's forecast of these variables.

12  
13 **Q. Could you please summarize the weather variables and other explanatory variables**  
14 **used in the models?**

15 A. Annual weather and other explanatory variables are summarized on Schedule NG-APM-4  
16 for the period 1990-2010. The weather variables are cooling degree days ("CDD") and  
17 heating degree days ("HDD"). The other explanatory variables are the number of days  
18 billed and real electricity price.

19  
20 **Q. How were "normal" CDD and HDD calculated in the forecast?**

21 A. Normal CDD and HDD were taken as the 30-year average for Providence, Rhode Island  
22 as calculated by the US Department of Commerce, National Oceanic and Atmospheric  
23 Administration ("NOAA").

1   **Q.    How were the number of days billed calculated and forecast?**

2   A.    The number of days billed refers to the number of days between meter readings when  
3       customer gWh data is collected. The number of days billed were calculated directly from  
4       the Company's meter reading schedule which extends three years into the future. The  
5       meter reading schedule is dependent upon the number of non-holiday weekdays which  
6       varies from month to month and even year to year. All else constant, a given percentage  
7       increase in the number days billed can be expected to increase gWh sales volumes by the  
8       same percentage amount. For example, in 2008 the Company billed customers for 365.3  
9       days which was 0.3% more than the number days billed in 2007, 364.3 days. Therefore,  
10      the 1.9% decline in actual 2008 gWh sales from the prior year would have been a 2.2%  
11      decline had the same number of days been billed in 2008 as in 2007.

12  
13      The billing day impact can be larger than this. In 2005, there was a 0.8% decrease in the  
14      number of days billed compared to the prior year. However, the current meter reading  
15      schedule indicates that the number of days billed in 2010 will be nearly identical to the  
16      number of days billed in 2008, that is, 365.2 days in 2010 versus 365.3 days in 2008.

17      On a monthly basis, the billing day impacts can be well over 5% in absolute magnitude  
18      so it is important to control for these impacts in the econometric analysis even though  
19      they may tend to cancel each other out over the course of a full year.

20  
21   **Q.    How was the real price of electricity forecast?**

1 A. Future values of nominal electricity price were held constant at the last historical value  
2 and deflated using Moody's forecast of the Consumer Price Index ("CPI"). This implies  
3 constant nominal electricity prices over the forecast period but falling real prices.  
4

5 **Q. What was the source of the historical data used to estimate the gWh sales and**  
6 **customer count models?**

7 A. Monthly historical gWh sales and customer counts were taken from the Company's  
8 billing system. Historical weather variables were calculated from the daily temperature  
9 readings from NOAA's Providence, Rhode Island weather station. This data was  
10 converted to revenue month HDD and CDD. To accomplish this, daily HDD and CDD  
11 were calculated and matched up with the Company's explicit meter reading schedule.  
12 Daily HDD and CDD were then summed across each of the twenty meter reading cycles,  
13 that is, the days between meter reading dates. Note that this was done both historically  
14 and prospectively, using NOAA's 30-year average of daily HDD and CDD, as the meter  
15 reading schedule extends three years into the future. The calculation of historical revenue  
16 month HDD and CDD is performed every month whereas the normal values are updated  
17 every five years.  
18

19 Historical values of the monthly economic/demographic variables were provided by  
20 Moody's Economy.com along with the forecast values under subscription services.  
21 Historical electricity prices were calculated from billing system data as total revenue,  
22 including commodity, divided by total kWh. This result was then divided by the CPI,  
23 provided by Moody's Economy.com. Since a significant portion of total industrial

1 revenue from the billing system does not include the commodity revenue, residential  
2 electric price was used as a proxy for industrial price.  
3

4 **Q. Dr. Morrissey, would you please describe how the econometric forecast of gWh sales**  
5 **and customers counts for the Company's classes of service was developed?**

6 A. The three relevant areas of econometric regression analysis are model specification,  
7 model estimation and forecasting. Specification involved using economic theory to  
8 identify a set of equations to model the relationship between energy sales and various  
9 appropriate causal factors or explanatory variables. Estimation involved the choice of the  
10 proper statistical method to derive values of the coefficients in the equations. Forecasting  
11 was accomplished by using the estimated equations along with future values of the  
12 explanatory variables.  
13

14 **Q. What estimation technique was used to model gWh sales and customer counts?**

15 A. The models were estimated using ordinary least squares. The Yule-Walker method was  
16 used to correct for first order autocorrelation if its presence was indicated by the value of  
17 the Durbin-Watson statistic.  
18

19 **Q. What was the historical estimation period for the models?**

20 A. The models were estimated using the monthly data for the period January 1990 through  
21 December 2008.  
22

23 **Q. How were residential gWh sales modeled?**

1 A. Residential sales, which accounted for 39% of total 2008 gWh sales, were specified as a  
2 kWh use per customer model. That is, total monthly residential sales were divided by the  
3 number of residential customers and regressed against the explanatory variables. A  
4 separate econometric model was used to forecast the number of residential customers.  
5 The total residential sales forecast was taken as the product of the kWh use per customer  
6 forecast and the customer forecast.

7  
8 Explanatory variables in the residential kWh use per customer model were real per capita  
9 income, revenue month HDD and CDD and the monthly number of days billed.  
10 Theoretically, the real price of electricity could also affect household electricity demand.  
11 However, this variable was found to be statistically insignificant in the regression  
12 analysis.

13  
14 For the residential customer model, the explanatory variable was the number of Rhode  
15 Island households.

16  
17 **Q. Could you please summarize the econometric forecast of residential sales and**  
18 **customer counts?**

19 A. The model-produced residential sales forecast is summarized in Schedule NG-APM-1.  
20 The forecast anticipates a 0.4% drop in residential gWh sales in 2009 and a 0.6% increase  
21 in 2010. Overall, forecasted 2010 residential gWh sales are 0.2% higher than actual 2008  
22 sales. This is an improvement over the 1.2% average annual decline in residential sales  
23 experienced since the housing market collapse in 2005. On the other hand, it stands in

1 stark contrast to the 3.7% average annual increase in residential sales experienced during  
2 the 2000-2005 housing boom. In general, residential sales have closely followed the  
3 pattern of the local housing market. Moody's does not expect housing markets to recover  
4 until the end of 2009 and then activity will remain subdued compared to the first half of  
5 the decade.

6  
7 The customer forecast is summarized on Schedule NG-APM-5. Based on Moody's  
8 forecast of the number of Rhode Island households, the number of residential customers  
9 is expected to increase 0.4% in 2009 and show no significant increase in 2010. This  
10 compares with an actual increase of 0.1% in 2008 and an average annual increase of  
11 0.4% over the last five years, that is, from 2003 to 2008.

12  
13 **Q. How were commercial gWh sales and customer counts modeled?**

14 A. Commercial sales accounted for 47% of total 2008 gWh sales. Commercial sales were  
15 modeled as a function of commercial employment, commercial output per employee,  
16 revenue month HDD and CDD and the number of days billed per month. Besides these  
17 determinants of commercial energy demand, an indicator variable for the shoulder month  
18 of October was included as an explanatory variable. This was to account for seasonality  
19 not fully captured by the weather variables. Finally, historical indicator variables for the  
20 months of April, September and October of 2008 were included as explanatory variables.  
21 These variables accounted for disruptions in the timing of monthly customer gWh  
22 billings that occurred in 2008 when the Company implemented a new billing system.



1 For the commercial customer count model, the explanatory variable was commercial  
2 employment.

3  
4 **Q. Please summarize the econometric forecast of commercial gWh sales and customer**  
5 **counts.**

6 A. This is shown on Schedule NG-APM-1. Commercial gWh sales are forecast to fall 1.8%  
7 in 2009 and then increase 1.6% in 2010. This compares with a 0.3% drop in 2008 and  
8 average annual growth of 0.3% over the last three years, from 2005-2008. Growth was  
9 much stronger than this over most of the historical period, especially from 1995-2005  
10 when commercial gWh sales increased 2.9% per year on average. However as the Rhode  
11 Island economy has slowed over the last three years, so too have commercial energy  
12 sales.

13  
14 The number of commercial customers is expected to decrease 3.1% in 2009 and 1.7% in  
15 2010 based on Moody's forecast of commercial employment. Over the last five years,  
16 the number of commercial customers has increased at an average annual rate of 0.9% per  
17 year.

18  
19 **Q. How were industrial gWh sales and customer counts modeled?**

20 A. Industrial sales made up 13% of total 2008 gWh sales. Industrial sales were modeled as a  
21 function of manufacturing employment, real electricity price, revenue month CDD,  
22 monthly billing days and historical indicator variables. The historical indicator variables

1 were to account for months when large customers were not billed or received bills for  
2 more than one month.

3  
4 For the industrial customer count model, the explanatory variable was manufacturing  
5 employment.

6  
7 **Q. Please summarize the econometric forecast of industrial gWh sales and customer**  
8 **counts.**

9 A. This is shown on Schedule NG-APM-1. Industrial gWh sales are forecast to fall 4.4% in  
10 2009 then increase 1.9% in 2010. This compares to an actual decline of 7.2% in 2008.  
11 Industrial sales have been in a free fall for the last ten years, declining 3.2% per year on  
12 average. The decline accelerated during the current economic slowdown as industrial  
13 gWh sales fell at an average rate of 5.1% per year from 2005-2008. The share of  
14 industrial sales in total gWh sales fell to just 13% in 2008 from 21% in 1998. Although  
15 alarming, this is consistent with the overall trend in the economy toward more service  
16 oriented industries. Rhode Island manufacturing employment has declined every year of  
17 the historical period as firms in mature industries such as textiles, jewelry, wire, steel,  
18 plastics and paper products have lost market share to producers located in lower cost  
19 areas or have moved to such areas themselves.

20  
21 The number of industrial customers is forecast to decrease 4.7% in 2009 and increase  
22 4.5% in 2010. Over the last five years, from 2003 to 2008, the number of industrial  
23 customers has declined at an average annual rate of 3.1%.

1   **Q.    How were streetlighting gWh sales and customer counts modeled?**

2   A.    Streetlighting sales accounted for just 0.8% of total gWh sales in 2008. There is no  
3       significant trend in the level of streetlighting sales over time. A regression analysis  
4       relating streetlighting sales to the number of hours of daylight per month was used predict  
5       their monthly pattern. The forecasted number of streetlighting customers was held  
6       constant at its last historical value.

7  
8   **Q.    Please summarize the streetlighting gWh sales and customer count forecast.**

9   A.    Both streetlighting gWh sales and customers counts are forecast to remain constant at  
10       2008 levels through 2010.

11  
12   **Q.    How were resale gWh sales modeled?**

13   A.    Resale gWh consist of sales to both municipally-owned and privately-owned electric  
14       systems within and adjacent to the Narragansett electric system. These sales amount to  
15       less than 1 gWh annually which is an insignificant percent of total gWh sales. Resale  
16       gWh were forecast from a regression model relating them to a linear time trend and  
17       revenue month HDD and CDD.

18  
19   **Q.    How was the forecast of gWh sales and customer counts by *rate class* derived from**  
20       **the econometric forecast of gWh sales and customer counts by *revenue class*?**

21   A.    The revenue class gWh sales and customer forecasts described above were allocated to  
22       rate classes based on each rate class's share in total revenue class growth predicted over  
23       the historical period. To accomplish this, separate regression equations were estimated

1 for each rate class/revenue class combination. The regressions related monthly rate class  
2 gWh sales to a linear time trend and predicted rate class gWh for each month of the  
3 forecast period. Predicted rate class gWh were summed to the revenue classes. Each  
4 rate class' share in total predicted revenue class gWh growth was used to allocate the  
5 econometric forecast of revenue class gWh sales to the rate classes. The same  
6 methodology was used to allocate the customer forecast to rate classes.  
7

8 **Q. Would you now please explain exactly how the Company's forecast of DSM savings**  
9 **was used to adjust the econometric forecast of gWh sales?**

10 A. The Company has been implementing DSM in its service area for over 20 years. Actual  
11 DSM savings achieved through 2008 were fully incorporated in the metered load data  
12 used to estimate the load forecasting models. The model-produced gWh sales forecast  
13 was thus a forecast of gWh sales with no additional DSM beyond the actual savings  
14 achieved through 2008, the end point of the historic estimation period. Estimates of  
15 additional DSM were computed as the difference between forecasted DSM savings in  
16 2010 and estimated DSM savings in 2008. This amount was subtracted from the model-  
17 produced 2010 gWh sales forecast results. This is the methodology accepted by the  
18 Commission in Docket 2016 (1991 Blackstone Valley Electric Company rate case),  
19 Docket 2036 (1992 Newport Electric Company rate case) and Docket 2290 (1995  
20 Narragansett Electric Company rate case).  
21

22 **Q. What was the source of the DSM estimates used to adjust the gWh sales forecast?**

1 A. Annual gWh savings due to DSM for the historical and forecast period were calculated  
2 by the Company's Energy Efficiency, Evaluation department based on DSM programs in  
3 place, their life cycle and DSM programs the Company has committed to for 2009 and  
4 2010. Results were provided separately for Residential and Business programs.

5  
6 **Q. Please summarize the DSM forecast and the adjustments made to the model-**  
7 **produced gWh sales forecast results for 2010.**

8 A. Schedule NG-APM-6 shows annual DSM gWh savings by customer class for the 1987-  
9 2008 historical period and for 2009 and 2010. Also shown are the corresponding gWh  
10 sales levels and annual DSM gWh savings as a percent of gWh sales. This indicates that  
11 total DSM savings on energy reached an all time high of 9.2% of total gWh sales in the  
12 2008 historical test year. This proportion is expected to grow to 9.7% of total sales in the  
13 2010 forecast rate year. Schedule NG-APM-6 shows the calculation of the additional  
14 DSM amounts subtracted from the model-produced gWh sales forecast to account for  
15 this. This amount is equal to the difference between forecasted DSM savings and DSM  
16 savings in the 2008 historical test year. The difference, which totals 29.591 gWh or 0.4%  
17 of total gWh sales in 2010, was subtracted from the model-produced gWh sales forecast  
18 results for 2010, by class of service. This yielded the final forecast of 2010 gWh sales  
19 with additional DSM shown on Schedule NG-APM-6. This amount, which totals 7,665  
20 gWh, was used to calculate revenue in the 2010 rate year.

21  
22 **Q. How were the annual incremental DSM energy savings from the Residential and**  
23 **Business programs allocated to months, revenue classes and rate classes?**

1 A. The incremental energy savings were allocated equally to all 2010 months, that is, each  
2 month was assigned 1/12 of the annual, incremental savings. The Residential program  
3 savings were assigned to the residential revenue class while the Business energy savings  
4 were allocated to the commercial and industrial revenue classes based on their share in  
5 the sum of commercial and industrial sales. The adjusted revenue class gWh were then  
6 allocated to rate classes using the methodology described above.  
7

8 **IV. Peak Load Forecast**

9 **Q. How were the Company's peak MW demands forecast?**

10 A. Monthly peak demands coincident with the Company peak were forecast for four power  
11 supply areas ("PSAs") that make up the Company's service area. The PSA demand  
12 forecasts were then summed to yield the Company's monthly peak demand forecast.  
13  
14 Individual PSA demands were forecast from econometric models relating monthly peaks  
15 to local employment and population, peak day temperature variables and monthly  
16 indicator variables. The four PSAs were Providence, Western Rhode Island, Blackstone  
17 Valley (the former Blackstone Valley Electric Company service area) and Newport (the  
18 former Newport Electric Corporation service area). There was a separate model for each  
19 PSA. Historical and forecast local employment and population were provided by  
20 Moody's Economy.com. Moody's January 2009 forecast was used which reflects the  
21 current recession. Providence County employment and population were used to drive the  
22 Providence, Western Rhode Island and Blackstone Valley PSA forecasts. Newport  
23 County employment and population drove the Newport PSA forecast. For all PSA's, the

1 peak day temperature values were calculated from NOAA's Providence weather station.

2 The forecast assumed normal weather. The historic estimation period for the models was  
3 January 1995 through October 2008.  
4

5 **Q. What was the source of the historical peak demand data?**

6 A. Monthly PSA MW demands coincident with the Company peak were provided by the  
7 Company's distribution planning engineers. The sum of the PSA demands were  
8 reconciled with monthly Company peaks collected by the Meter Data Services  
9 department and reported to the ISO-NE for wholesale power billing.  
10

11 **Q. Please summarize the Company's peak MW demand forecast.**

12 A. The forecast is summarized in Schedule NG-APM-7. Compared to actual 2008 average  
13 monthly peaks, the forecast anticipates a 3.2% drop in 2009 and a 1.9% increase in 2010.  
14 Overall, average monthly peaks are forecast to be 1.4% lower in 2010 than in 2008.  
15

16 **Q. How were the Company's expanded energy efficiency initiatives reflected in the**  
17 **monthly peak demand forecast?**

18 A. The same methodology used to adjust the energy forecast was used to adjust the peak  
19 forecast. Schedule NG-APM-8 shows estimated annual DSM savings, not including  
20 interruptible loads, on summer and winter peak demands for the 1987-2008 historical  
21 period and for the 2010 forecasted rate year. These savings estimates were calculated by  
22 the Company's Energy Efficiency Evaluation department. Also shown are the  
23 corresponding Company summer and winter peak demands and DSM savings as a

1 percentage of these demands. This indicates that DSM savings on the summer peak  
2 amounted to 7.6% of the actual 2008 summer peak. These savings are expected to grow  
3 by 5.8 MW between the 2008 test year and the 2010 rate year, reaching 9.0% of summer  
4 peak load. The 5.8 MW increase is the additional DSM that was subtracted from the  
5 model-produced forecast results for the months of June, July and August in the 2010 rate  
6 year. This had the effect of lowering the 2010 peak forecast for these months by  
7 approximately 0.4%.

8  
9 On the other hand, total DSM savings on the winter peak demand, which equaled 10.3%  
10 of the actual 2008 winter peak, are expected to fall by 22.5 MW between the 2008 test  
11 year and the 2010 rate year. This -22.5 MW represents the additional DSM amounts that  
12 were subtracted from the model-produced forecast results for all months other than June,  
13 July and August. This had the effect of raising the 2010 peak forecast for these months  
14 by approximately 1.7%. Including the downward adjustment made to the summer peak  
15 months, the overall adjustment to the model-produced average monthly peak forecast for  
16 2010 was an upward adjustment equal to 15.4 MW or 1.1%.

17  
18 **V. Conclusion**

19 Q. Does this conclude your direct testimony?

20 A. Yes.





### **Schedules**

Schedule NG-APM-1	Narragansett Electric Company GWh Sales Forecast Before Additional DSM, Actual and Forecast GWh Sales by Revenue Class, 1990-2010
Schedule NG-APM-2	Narragansett Electric Company GWh Sales Forecast Before Additional DSM, Weather-Normalized and Forecast GWh Sales by Revenue Class, 1990-2010
Schedule NG-APM-3	Narragansett Electric Company GWh Sales Forecast, Historical and Forecast Economic Variables, 1990-2010
Schedule NG-APM-4	Narragansett Electric Company GWh Sales Forecast, Weather and Other Explanatory Variables, 1990-2010
Schedule NG-APM-5	Narragansett Electric Company Customer Forecast, Actual and Forecast Customer Counts by Revenue Class, 1990-2010
Schedule NG-APM-6	Narragansett Electric Company GWh Sales Forecast, Historical and Forecast DSM Savings on Energy by Program Type (GWh)
Schedule NG-APM-7	Narragansett Electric Company Monthly Peak Demand Forecast with Additional DSM, 2008-2010 (MW)
Schedule NG-APM-8	Narragansett Electric Company Monthly Peak Demand Forecast, Historical and Forecast DSM Savings on Summer and Winter Peak Demand (MW DSM Savings Without Interruptible Loads)



Schedule NG-APM-1

Narragansett Electric Company GWh Sales Forecast Before Additional  
DSM, Actual and Forecast GWh Sales by Revenue Class, 1990-2010

**Narragansett Electric Company GWh Sales Forecast Before Additional DSM  
Actual and Forecast GWh Sales by Revenue Class, 1990-2010**

Year	Residential	Growth Rate	Commercial	Growth Rate	Industrial	Growth Rate	Street Lighting	Growth Rate	Resale	Growth Rate	Total	Growth Rate
1990	2,355.626		2,589.119		1,360.680		75.574		0.602		6,381.601	
1991	2,347.151	-0.4%	2,575.753	-0.5%	1,366.442	0.4%	73.434	-2.8%	0.583	-3.2%	6,363.362	-0.3%
1992	2,340.224	-0.3%	2,590.136	0.6%	1,351.413	-1.1%	71.581	-2.5%	0.600	2.9%	6,353.954	-0.1%
1993	2,388.456	2.1%	2,641.179	2.0%	1,411.043	4.4%	67.477	-5.7%	0.553	-7.8%	6,508.709	2.4%
1994	2,432.355	1.8%	2,660.848	0.7%	1,370.570	-2.9%	66.129	-2.0%	0.591	6.9%	6,530.493	0.3%
1995	2,414.834	-0.7%	2,684.213	0.9%	1,346.135	-1.8%	64.031	-3.2%	0.583	-1.4%	6,509.796	-0.3%
1996	2,463.461	2.0%	2,711.490	1.0%	1,346.375	0.0%	62.157	-2.9%	0.588	0.8%	6,584.071	1.1%
1997	2,457.081	-0.3%	2,749.704	1.4%	1,383.470	2.8%	61.324	-1.3%	0.619	5.4%	6,652.199	1.0%
1998	2,500.434	1.8%	2,839.409	3.3%	1,428.162	3.2%	61.387	0.1%	0.656	5.9%	6,830.048	2.7%
1999	2,633.849	5.3%	2,962.778	4.3%	1,414.073	-1.0%	61.915	0.9%	0.708	7.9%	7,073.324	3.6%
2000	2,606.986	-1.0%	3,089.688	4.3%	1,406.947	-0.5%	61.693	-0.4%	0.711	0.5%	7,166.026	1.3%
2001	2,689.214	3.2%	3,231.227	4.6%	1,357.889	-3.5%	62.074	0.6%	0.792	11.3%	7,341.196	2.4%
2002	2,799.301	4.1%	3,327.314	3.0%	1,325.874	-2.4%	62.304	0.4%	0.821	3.7%	7,515.614	2.4%
2003	2,955.332	5.6%	3,418.260	2.7%	1,256.555	-5.2%	63.054	1.2%	0.890	8.4%	7,694.092	2.4%
2004	2,971.390	0.5%	3,489.108	2.1%	1,297.438	3.3%	63.480	0.7%	0.864	-2.9%	7,822.280	1.7%
2005	3,129.682	5.3%	3,580.945	2.6%	1,210.959	-6.7%	62.886	-0.9%	0.863	-0.1%	7,985.335	2.1%
2006	2,992.324	-4.4%	3,534.610	-1.3%	1,141.426	-5.7%	63.169	0.5%	0.801	-7.2%	7,732.329	-3.2%
2007	3,074.049	2.7%	3,625.716	2.6%	1,116.802	-2.2%	62.274	-1.4%	0.814	1.6%	7,879.655	1.9%
2008	3,019.000	-1.8%	3,613.682	-0.3%	1,036.156	-7.2%	64.336	3.3%	0.446	-45.2%	7,733.621	-1.9%
Forecast												
2009 *	3,008.390	-0.4%	3,548.115	-1.8%	990.062	-4.4%	64.370	0.1%	0.659	47.7%	7,611.597	-1.6%
2010	3,014.092	0.2%	3,606.355	1.6%	1,009.074	1.9%	64.336	-0.1%	0.827	25.6%	7,694.684	1.1%

\* 2009 data are 2 months actual and 10 months forecast.

Compound Average Annual Growth Rates

1990-2008 18 -year	1.4%	1.9%	-1.5%	-0.9%	-1.7%	1.1%
1998-2008 10-Year	1.9%	2.4%	-3.2%	0.5%	-3.8%	1.3%
2003-2008 5-Year	0.4%	1.1%	-3.8%	0.4%	-12.9%	0.1%
2005-2008 3-Year	-1.2%	0.3%	-5.1%	0.8%	-19.8%	-1.1%
2008-2010 2-Year	-0.1%	-0.1%	-1.3%	0.0%	36.2%	-0.3%



Schedule NG-APM-2

Narragansett Electric Company GWh Sales Forecast Before Additional  
DSM, Weather-Normalized and Forecast GWh Sales by Revenue Class,  
1990-2010

**Narragansett Electric Company GWh Sales Forecast Before Additional DSM  
Weather-Normalized and Forecast GWh Sales by Revenue Class, 1990-2010**

Year	Residential	Growth Rate	Commercial	Growth Rate	Industrial	Growth Rate	Street Lighting	Growth Rate	Resale	Growth Rate	Total	Growth Rate
1990	2,366.879		2,582.545		1,358.650		75.574		0.602		6,384.250	
1991	2,353.215	-0.6%	2,547.039	-1.4%	1,359.381	0.1%	73.434	-2.8%	0.583	-3.2%	6,333.651	-0.8%
1992	2,385.029	1.4%	2,623.502	3.0%	1,358.316	-0.1%	71.581	-2.5%	0.600	2.9%	6,439.028	1.7%
1993	2,355.790	-1.2%	2,607.358	-0.6%	1,404.960	3.4%	67.477	-5.7%	0.553	-7.8%	6,436.138	0.0%
1994	2,455.275	4.2%	2,663.899	2.2%	1,371.473	-2.4%	66.129	-2.0%	0.591	6.9%	6,557.367	1.9%
1995	2,426.425	-1.2%	2,665.836	0.1%	1,341.963	-2.2%	64.031	-3.2%	0.583	-1.4%	6,498.837	-0.9%
1996	2,502.757	3.1%	2,726.085	2.3%	1,350.319	0.6%	62.157	-2.9%	0.588	0.8%	6,641.906	2.2%
1997	2,494.176	-0.3%	2,749.637	0.9%	1,383.671	2.5%	61.324	-1.3%	0.619	5.4%	6,689.428	0.7%
1998	2,572.713	3.1%	2,838.717	3.2%	1,426.251	3.1%	61.387	0.1%	0.656	5.9%	6,899.724	3.1%
1999	2,611.911	1.5%	2,933.210	3.3%	1,401.703	-1.7%	61.915	0.9%	0.708	7.9%	7,009.447	1.6%
2000	2,637.783	1.0%	3,117.478	6.3%	1,411.621	0.7%	61.693	-0.4%	0.711	0.5%	7,229.287	3.1%
2001	2,681.474	1.7%	3,212.826	3.1%	1,355.136	-4.0%	62.074	0.6%	0.792	11.3%	7,312.302	1.1%
2002	2,729.537	1.8%	3,285.124	2.3%	1,315.639	-2.9%	62.304	0.4%	0.821	3.7%	7,393.425	1.1%
2003	2,846.843	4.3%	3,408.321	3.8%	1,248.428	-5.1%	63.054	1.2%	0.890	8.4%	7,567.537	2.4%
2004	2,954.145	3.8%	3,475.171	2.0%	1,297.285	3.9%	63.480	0.7%	0.864	-2.9%	7,790.944	3.0%
2005	3,011.879	2.0%	3,528.750	1.5%	1,198.328	-7.6%	62.886	-0.9%	0.863	-0.1%	7,802.706	0.2%
2006	3,004.917	-0.2%	3,550.791	0.6%	1,138.189	-5.0%	63.169	0.5%	0.801	-7.2%	7,757.866	-0.6%
2007	3,043.344	1.3%	3,597.028	1.3%	1,110.901	-2.4%	62.274	-1.4%	0.814	1.6%	7,814.361	0.7%
2008	3,017.406	-0.9%	3,619.827	0.6%	1,032.532	-7.1%	64.336	3.3%	0.446	-45.2%	7,734.547	-1.0%
Forecast												
2009 *	2,999.521	-0.6%	3,543.228	-2.1%	990.062	-4.1%	64.370	0.1%	0.659	47.7%	7,597.840	-1.8%
2010	3,014.092	0.5%	3,606.355	1.8%	1,009.074	1.9%	64.336	-0.1%	0.827	25.6%	7,694.684	1.3%

\* 2009 data are 2 months actual and 10 months forecast.

Compound Average Annual Growth Rates

1990-2008 18 -year	1.4%	1.9%	-1.5%	-0.9%	-1.7%	1.1%
1998-2008 10-Year	1.6%	2.5%	-3.2%	0.5%	-3.8%	1.1%
2003-2008 5-Year	1.2%	1.2%	-3.7%	0.4%	-12.9%	0.4%
2005-2008 3-Year	0.1%	0.9%	-4.8%	0.8%	-19.8%	-0.3%
2008-2010 2-Year	-0.1%	-0.2%	-1.1%	0.0%	36.2%	-0.3%





Schedule NG-APM-3

Narragansett Electric Company GWh Sales Forecast, Historical and  
Forecast Economic Variables, 1990-2010

**Narragansett Electric Company GWh Sales Forecast  
Historical and Forecast Economic Variables, 1990-2010**

Year	Total Employment (000's)	Growth Rate	Commercial Employment (000's)	Growth Rate	Manufacturing Employment (000's)	Growth Rate	Real Personal Income (\$mil)	Growth Rate	Gross State Product (\$bil)	Growth Rate	Population (000's)	Growth Rate	Number of Households (000's)	Growth Rate
1990	454.079		322.974		95.142		24,851.490		27.2		1,006.202		379.031	
1991	424.216	-6.6%	303.729	-6.0%	87.498	-8.0%	24,035.847	-3.3%	26.2	-3.6%	1,010.611	0.4%	381.996	0.8%
1992	424.129	0.0%	305.329	0.5%	84.815	-3.1%	24,306.996	1.1%	26.7	1.7%	1,012.756	0.2%	384.079	0.5%
1993	429.969	1.4%	310.360	1.6%	83.583	-1.5%	24,584.401	1.1%	27.1	1.5%	1,015.078	0.2%	386.252	0.6%
1994	434.150	1.0%	314.403	1.3%	82.550	-1.2%	24,644.916	0.2%	27.3	0.8%	1,015.983	0.1%	387.894	0.4%
1995	438.929	1.1%	319.164	1.5%	80.351	-2.7%	25,354.620	2.9%	28.1	3.0%	1,017.268	0.1%	389.695	0.5%
1996	440.677	0.4%	322.863	1.2%	77.398	-3.7%	25,762.643	1.6%	28.6	2.0%	1,021.072	0.4%	392.478	0.7%
1997	450.041	2.1%	332.371	2.9%	76.208	-1.5%	26,632.565	3.4%	30.5	6.3%	1,025.604	0.4%	395.561	0.8%
1998	457.995	1.8%	341.013	2.6%	74.873	-1.8%	27,772.764	4.3%	30.9	1.5%	1,031.638	0.6%	399.235	0.9%
1999	465.400	1.6%	348.953	2.3%	72.165	-3.6%	28,125.612	1.3%	31.6	2.3%	1,040.911	0.9%	404.233	1.3%
2000	476.792	2.4%	359.127	2.9%	71.174	-1.4%	29,205.840	3.8%	33.6	6.3%	1,050.995	1.0%	409.410	1.3%
2001	478.476	0.4%	363.639	1.3%	67.766	-4.8%	30,043.085	2.9%	34.2	1.7%	1,058.906	0.8%	412.560	0.8%
2002	479.395	0.2%	368.974	1.5%	62.249	-8.1%	30,442.818	1.3%	34.9	2.0%	1,067.070	0.8%	415.726	0.8%
2003	484.193	1.0%	376.352	2.0%	58.666	-5.8%	30,965.555	1.7%	36.5	4.6%	1,072.547	0.5%	417.864	0.5%
2004	488.459	0.9%	381.435	1.4%	56.975	-2.9%	31,674.042	2.3%	37.8	3.6%	1,072.395	0.0%	417.804	0.0%
2005	491.050	0.5%	385.601	1.1%	54.891	-3.7%	31,823.631	0.5%	37.6	-0.5%	1,066.621	-0.5%	415.554	-0.5%
2006	493.299	0.5%	390.124	1.2%	52.716	-4.0%	32,787.726	3.0%	38.6	2.7%	1,061.424	-0.5%	413.530	-0.5%
2007	493.024	-0.1%	390.698	0.1%	50.816	-3.6%	33,752.224	2.9%	38.7	0.3%	1,057.880	-0.3%	412.154	-0.3%
2008	480.172	-2.6%	381.698	-2.3%	47.765	-6.0%	33,396.487	-1.1%	37.9	-2.1%	1,056.725	-0.1%	411.434	-0.2%
Forecast														
2009	461.006	-4.0%	368.618	-3.4%	44.767	-6.3%	32,835.303	-1.7%	37.2	-1.8%	1,058.796	0.2%	412.014	0.1%
2010	462.373	0.3%	370.8752729	0.6%	45.120	0.8%	33,086.439	0.8%	38.7	4.0%	1,063.226	0.4%	413.203	0.3%
Compound Average Annual Growth Rates														
1990-2008 18-year		0.3%		0.9%		-3.8%		1.7%		1.9%		0.3%		0.5%
1998-2008 10-Year		0.5%		1.1%		-4.4%		1.9%		2.1%		0.2%		0.3%
2003-2008 5-Year		-0.2%		0.3%		-4.0%		1.5%		0.8%		-0.3%		-0.3%
2005-2008 3-Year		-0.7%		-0.3%		-4.5%		1.6%		0.3%		-0.3%		-0.3%
2008-2010 2-Year		-1.9%		-1.4%		-2.8%		-0.5%		1.0%		0.3%		0.2%



Schedule NG-APM-4

Narragansett Electric Company GWh Sales Forecast, Weather and Other  
Explanatory Variables, 1990-2010

**Narragansett Electric Company GWh Sales Forecast  
Weather and Other Explanatory Variables, 1990-2010**

<u>Year</u>	<u>CDD</u>	<u>Growth Rate</u>	<u>HDD</u>	<u>Growth Rate</u>	<u>Number of Days Billed</u>	<u>Growth Rate</u>	<u>Real Electricity Price (Cents/KWh)</u>	<u>Growth Rate</u>
1990	710.5		5,376.2		364.6		15.0	
1991	851.7	19.9%	5,064.4	-5.8%	365.5	0.2%	16.4	9.1%
1992	506.3	-40.6%	5,904.4	16.6%	366.7	0.3%	16.3	-0.8%
1993	835.0	64.9%	5,783.5	-2.0%	365.2	-0.4%	15.8	-3.1%
1994	658.6	-21.1%	5,792.3	0.2%	365.2	0.0%	15.4	-2.2%
1995	786.4	19.4%	5,460.5	-5.7%	364.1	-0.3%	15.1	-2.1%
1996	580.8	-26.1%	6,093.9	11.6%	368.1	1.1%	15.4	1.9%
1997	672.8	15.8%	5,753.0	-5.6%	365.1	-0.8%	15.3	-0.6%
1998	723.0	7.5%	5,010.0	-12.9%	365.4	0.1%	13.0	-14.8%
1999	872.5	20.7%	5,165.2	3.1%	365.1	-0.1%	12.4	-4.7%
2000	585.9	-32.9%	5,565.7	7.8%	362.7	-0.7%	12.2	-1.9%
2001	747.8	27.6%	5,480.1	-1.5%	365.3	0.7%	14.5	19.2%
2002	927.2	24.0%	5,515.9	0.7%	365.3	0.0%	12.0	-17.5%
2003	766.6	-17.3%	6,253.0	13.4%	365.6	0.1%	12.2	2.1%
2004	691.7	-9.8%	5,940.2	-5.0%	366.7	0.3%	12.9	5.7%
2005	997.3	44.2%	6,058.3	2.0%	363.8	-0.8%	13.4	3.8%
2006	811.7	-18.6%	5,243.0	-13.5%	364.0	0.1%	15.7	17.0%
2007	860.3	6.0%	5,472.5	4.4%	364.3	0.1%	14.0	-11.0%
2008	817.5	-5.0%	5,363.3	-2.0%	365.3	0.3%	17.3	23.5%
Forecast								
2009	714.0	-12.7%	5,754.0	7.3%	365.6	0.1%	17.1	-0.9%
2010	714.0	0.0%	5,754.0	0.0%	365.2	-0.1%	16.7	-2.6%
Compound Average Annual Growth Rates								
1990-2008 18 -year		0.8%		0.0%		0.0%		0.8%
1998-2008 10-Year		1.2%		0.7%		0.0%		2.8%
2003-2008 5-Year		1.3%		-3.0%		0.0%		7.1%
2005-2008 3-Year		-6.4%		-4.0%		0.1%		8.8%
2008-2010 2-Year		-6.5%		3.6%		0.0%		-1.7%



Schedule NG-APM-5

Narragansett Electric Company Customer Forecast, Actual and Forecast  
Customer Counts by Revenue Class, 1990-2010



**Narragansett Electric Company Customer Forecast  
Actual and Forecast Customer Counts by Revenue Class, 1990-2010**

Year	Residential	Growth Rate	Commercial	Growth Rate	Industrial	Growth Rate	Total	Growth Rate
1990	381,900		44,485		2,572		428,957	
1991	384,195	0.6%	44,462	-0.1%	2,514	-2.3%	431,170	0.5%
1992	386,490	0.6%	44,222	-0.5%	2,495	-0.7%	433,207	0.5%
1993	389,201	0.7%	44,246	0.1%	2,474	-0.9%	435,921	0.6%
1994	391,234	0.5%	44,146	-0.2%	2,577	4.2%	437,957	0.5%
1995	396,293	1.3%	42,876	-2.9%	2,584	0.3%	441,754	0.9%
1996	398,905	0.7%	43,216	0.8%	2,577	-0.3%	444,698	0.7%
1997	401,665	0.7%	43,737	1.2%	2,529	-1.9%	447,931	0.7%
1998	404,266	0.6%	45,846	4.8%	2,576	1.8%	452,688	1.1%
1999	408,191	1.0%	46,972	2.5%	2,556	-0.8%	457,720	1.1%
2000	409,273	0.3%	50,673	7.9%	2,578	0.8%	462,523	1.0%
2001	411,333	0.5%	52,433	3.5%	2,550	-1.1%	466,316	0.8%
2002	413,819	0.6%	52,819	0.7%	2,473	-3.0%	469,111	0.6%
2003	416,421	0.6%	53,559	1.4%	2,420	-2.1%	472,400	0.7%
2004	418,366	0.5%	54,160	1.1%	2,364	-2.3%	474,890	0.5%
2005	421,615	0.8%	54,611	0.8%	2,313	-2.2%	478,539	0.8%
2006	422,888	0.3%	55,172	1.0%	2,222	-3.9%	480,283	0.4%
2007	424,781	0.4%	55,796	1.1%	2,165	-2.6%	482,742	0.5%
2008	425,344	0.1%	56,056	0.5%	2,071	-4.3%	483,471	0.2%
Forecast								
2009 *	427,252	0.4%	54,343	-3.1%	1,997	-3.6%	483,593	0.0%
2010	427,115	0.0%	53,400	-1.7%	2,063	3.3%	482,578	-0.2%

\* 2009 data are 2 months actual and 10 months forecast.

Compound Average Annual Growth Rates

1990-2008 18 -year	0.6%	1.3%	-1.2%	0.7%
1998-2008 10-Year	0.5%	2.0%	-2.2%	0.7%
2003-2008 5-Year	0.4%	0.9%	-3.1%	0.5%
2005-2008 3-Year	0.3%	0.9%	-3.6%	0.3%
2008-2010 2-Year	0.2%	-2.4%	-0.2%	-0.1%



Schedule NG-APM-6

Narragansett Electric Company GWh Sales Forecast, Historical and  
Forecast DSM Savings on Energy by Program Type (GWh)

**Narragansett Electric Company GWh Sales Forecast  
Historical and Forecast DSM Savings on Energy by Program Type (GWh)**

Year	DSM Savings (GWh)			GWh Sales			DSM Percent of GWh Sales		
	Residential	Business	Total	Residential	Business	Total	Residential	Business	Total
1987	2.632	0.465	3.097						
1988	8.394	7.347	15.741						
1989	13.307	24.414	37.721						
1990	17.389	87.363	104.752	2,355.626	4,028.625	6,384.250	0.7%	2.2%	1.6%
1991	18.556	107.882	126.439	2,347.151	3,986.501	6,333.651	0.8%	2.7%	2.0%
1992	20.740	140.966	161.706	2,340.224	4,098.805	6,439.028	0.9%	3.4%	2.5%
1993	20.519	165.460	185.978	2,388.456	4,047.682	6,436.138	0.9%	4.1%	2.9%
1994	18.353	189.415	207.768	2,432.355	4,125.011	6,557.367	0.8%	4.6%	3.2%
1995	20.494	207.646	228.140	2,414.834	4,084.003	6,498.837	0.8%	5.1%	3.5%
1996	24.102	224.448	248.550	2,463.461	4,178.445	6,641.906	1.0%	5.4%	3.7%
1997	28.646	248.733	277.378	2,457.081	4,232.348	6,689.428	1.2%	5.9%	4.1%
1998	35.036	264.871	299.907	2,500.434	4,399.291	6,899.724	1.4%	6.0%	4.3%
1999	40.474	282.093	322.567	2,633.849	4,375.598	7,009.447	1.5%	6.4%	4.6%
2000	50.903	291.090	341.993	2,606.986	4,622.300	7,229.287	2.0%	6.3%	4.7%
2001	69.812	322.772	392.584	2,689.214	4,623.088	7,312.302	2.6%	7.0%	5.4%
2002	88.902	353.655	442.557	2,799.301	4,594.124	7,393.425	3.2%	7.7%	6.0%
2003	107.137	373.577	480.714	2,955.332	4,612.205	7,567.537	3.6%	8.1%	6.4%
2004	118.274	401.597	519.871	2,971.390	4,819.555	7,790.944	4.0%	8.3%	6.7%
2005	131.753	436.754	568.507	3,129.682	4,673.024	7,802.706	4.2%	9.3%	7.3%
2006	152.657	470.673	623.330	2,992.324	4,765.543	7,757.866	5.1%	9.9%	8.0%
2007	170.787	503.364	674.152	3,074.049	4,740.312	7,814.361	5.6%	10.6%	8.6%
2008	186.756	527.522	714.278	3,019.000	4,715.547	7,734.547	6.2%	11.2%	9.2%
Forecast									
2009	202.862	587.528	790.391	3,008.390	4,603.206	7,611.597	6.7%	12.8%	10.4%
2010	175.066	568.803	743.869	3,014.092	4,680.592	7,694.684	5.8%	12.2%	9.7%
<b>Additional DSM *</b>									
				Forecast of Gwh Sales with Additional DSM			Additional DSM Percent of Gwh Sales		
2009	16.106	60.007	76.112	2,992.285	4,543.200	7,535.484	0.5%	1.3%	1.0%
2010	-11.690	41.281	29.591	3,025.782	4,639.311	7,665.093	-0.4%	0.9%	0.4%

\* Additional DSM calculated as DSM in the 2010 forecast year minus DSM in the 2008 historical test year



Schedule NG-APM-7

Narragansett Electric Company Monthly Peak Demand Forecast with  
Additional DSM, 2008-2010 (MW)

[illegible][illegible]

Year	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
Month	1	2	3	4	5	6	7	8	9	10	11	12	Average
Peak MW	1298.3	1248.0	1222.3	1044.2	1190.5	1463.1	1562.1	1539.5	1401.8	1182.3	1295.3	1339.6	1,315.6

## Growth Rates

Year	2009/2008	2010/2009	2011/2010	2012/2011	2013/2012	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017	2019/2018	2020/2019
Growth	-7.1%	-3.3%	5.0%	-3.6%	6.9%	-17.8%	-7.0%	0.6%	-6.2%	3.3%	0.7%	-3.2%
Growth	3.3%	0.9%	1.3%	1.9%	2.1%	0.0%	0.3%	0.5%	2.8%	3.6%	3.6%	1.9%
Growth	-5.6%	-4.2%	4.4%	-3.8%	7.1%	-17.5%	-6.4%	1.4%	-5.2%	5.0%	2.4%	-2.5%

Note: Actual data through February 2009.





**Schedule NG-APM-8**

**Narragansett Electric Company Monthly Peak Demand Forecast,  
Historical and Forecast DSM Savings on Summer and Winter Peak  
Demand (MW DSM Savings Without Interruptible Loads)**

**Narragansett Electric Company Monthly Peak Demand Forecast  
Historical and Forecast DSM Savings on Summer and Winter Peak Demand  
(MW DSM Savings Without Interruptible Loads)**

Year	DSM Savings (MW)		Company Peak Demand (MW)		DSM % of Peak Demand	
	Summer Peak	Winter Peak	Summer Peak	Winter Peak	Summer Class	Winter Class
1987	0.721	1.595	1,285.0	1,089.9	2.1%	2.5%
1988	3.905	6.021	1,305.5	1,139.9	2.6%	3.4%
1989	9.137	26.823	1,261.3	1,153.1	3.6%	3.7%
1990	27.563	26.769	1,286.4	1,123.2	4.0%	4.5%
1991	34.344	39.179	1,369.7	1,198.9	4.1%	4.5%
1992	46.030	42.464	1,384.5	1,162.6	4.3%	4.9%
1993	50.927	50.148	1,261.2	1,186.6	5.0%	5.3%
1994	55.717	53.724	1,393.5	1,109.5	4.9%	6.1%
1995	59.671	56.801	1,418.4	1,134.9	5.1%	6.2%
1996	62.947	62.540	1,510.6	1,187.8	5.0%	5.7%
1997	68.079	67.695	1,475.4	1,258.0	5.1%	6.1%
1998	71.916	70.516	1,663.3	1,226.1	5.0%	7.1%
1999	75.377	67.988	1,687.1	1,203.2	5.4%	7.9%
2000	75.818	76.653	1,556.0	1,274.1	6.3%	8.0%
2001	83.212	87.287	1,601.7	1,368.9	6.5%	8.1%
2002	90.976	95.480	1,787.8	1,367.0	6.3%	8.8%
2003	97.447	101.759	1,932.0	1,301.9	6.3%	9.8%
2004	104.901	110.890	1,760.1	1,308.2	7.3%	10.3%
2005	113.052	120.649	1,781.3	1,331.6	7.6%	10.3%
2006	121.095	127.989				
2007	128.916	134.781				
2008	135.144	137.575				
Forecast						
2009	140.944	115.065	1,558.0	1,298.3	9.0%	8.9%
2010	140.944	115.065	1,562.1	1,339.6	9.0%	8.6%
<u>Additional DSM *</u>						
2010	5,800	-22,510			0.4%	-1.7%

\* Additional DSM calculated as DSM in the 2010 forecast year minus DSM in the 2008 historical test year



**PRE-FILED DIRECT TESTIMONY**  
**OF**  
**JOHN WALTER**

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**I. Introduction and Qualifications**

**Q. Mr. Walter, please state your name and business address.**

A. John E. Walter, 144 Kensington Avenue, Buffalo, New York 14214.

**Q. By whom are you employed and in what capacity?**

A. I am the Manager Outdoor Lighting for National Grid USA, including Narragansett Electric Company. Throughout this testimony, I will refer to National Grid USA as “National Grid.” For purposes of clarity, where I intend to refer to Narragansett Electric Company, I will refer to it as “the Company.”

**Q. Please describe your educational background and business experience.**

A. I am a graduate of Clarkson College of Technology, (presently Clarkson University), located in Potsdam, New York with Bachelor and Masters of Science degrees in Civil and Environmental Engineering in 1979 and 1981, respectively. I received a Masters in Business Administration degree from the State University of New York at Buffalo in 1996. I am a registered professional engineer in the State of New York. I provided civil, structural and geotechnical engineering and project management services to D’Appolonia Consulting Engineers, Pittsburgh, PA (1981-1983) and Niagara Mohawk Power Corporation (“Niagara Mohawk”), Syracuse, NY (1983-1990). I transferred to a position of Manager Construction, Inspection and Street Lighting in the Operations organization of Niagara Mohawk’s Western Division, (Buffalo, NY), having managerial responsibilities of all field construction and maintenance associated within these work groups from 1990 through 1999. In 1999, I took the position of Director Outdoor

1 Lighting for Niagara Mohawk, having responsibilities for all outdoor lighting business  
2 related functions. Following the merger of Niagara Mohawk and National Grid in 2002, I  
3 retained the position and associated responsibilities of Director Outdoor Lighting – NY.  
4 In 2008, I became Manager Outdoor Lighting, having responsibility for all policies,  
5 processes, information systems, and regulatory issues associated with the outdoor lighting  
6 business in National Grid’s New England and upstate New York service territories.  
7

8 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**  
9 **(“Commission”) or any other regulatory commissions?**

10 A. Although I have not testified before the Commission, I have provided testimony in three  
11 cases before the New York Public Service Commission that were consolidated in a single  
12 proceeding. Those cases all related to the outdoor lighting business of Niagara Mohawk.  
13

14 **II. Purpose of Testimony**

15 **Q. What is the purpose of your testimony?**

16 A. My testimony discusses the Company’s proposed modifications to its existing street  
17 lighting tariff provisions and the proposed addition of a new decorative street and area  
18 lighting tariff, rates for 400 watt and 1,000 watt metal halide floodlights, a temporary  
19 turnoff provision for Rate S-14 General Street and Area Lighting Service offering, and a  
20 Lighting Service Charge. In Schedule NG-JEW-1, I have provided a glossary of some of  
21 the key terms related to the outdoor lighting business that I will use in my testimony.  
22  
23

1   **III.   Overview of Current Street Lighting Tariffs and Proposed Modifications**

2   **Q.   Please describe the Company's current street light service offerings.**

3   A.   The Company currently has two tariffs for street and area lighting service. Rate S-10,  
4       Limited Service - Private Lighting ("Rate S-10"), provides for unmetered electric service  
5       and for maintenance of Company-owned equipment. It is available to residential,  
6       commercial and industrial customers for private area lighting and floodlighting. This  
7       service offering has been closed to new service location customers for many years. Rate  
8       S-14, General Street and Area Lighting Service ("Rate S-14"), is available to municipal  
9       customers for municipally owned or accepted roadways and other public areas. This  
10      service offering provides for unmetered electric service and for maintenance of  
11      Company-owned equipment and is available to municipalities or other public authorities  
12      for street and area lighting applications.

13  
14   **Q.   What modifications is the Company proposing to its current street lighting tariffs?**

15   A.   The Company is proposing a number of housekeeping changes to its existing tariffs, the  
16      updating of rates and charges to reflect the Company's allocated cost of service supported  
17      by Howard Gorman, the creation of a separate "Decorative Street and Area Lighting"  
18      service option, the adoption of a temporary turn-off rate provision for Rate S-14, and the  
19      application of a "Lighting Service Charge" to be assessed to customers for Company  
20      responses to customer service requests which do not involve Company lighting facilities.

21  
22   **Q.   Is the Company proposing new luminaire and support rates for each of the tariffs**  
23      **described above?**



1 A. Yes. The proposed luminaire and support rates for the existing street and area lighting  
2 tariffs are included in the testimony and schedules of Mr. Gorman.  
3

4 **IV. Housekeeping Changes and Updates to Tariffs**

5 **Q. Please describe the housekeeping changes being proposed to the tariffs.**

6 A. The Company is proposing a number of non-substantive changes to its tariffs that are  
7 intended to clarify terms and conditions of service and the elimination of outdated  
8 terminology and the inclusion of facility descriptions. For example, the Company is  
9 proposing to eliminate the reference to “lumen codes,” typically three digit numbers that  
10 were formerly used for billing purposes. These codes are no longer used by the  
11 Company’s billing system. Other changes to update tariff language are of a similar  
12 nature and are shown in the marked version of the tariffs filed by the Company in this  
13 proceeding. The Company is also proposing revisions to the descriptions of certain  
14 service offerings to accommodate the service provided to customers who were served by  
15 Eastern Utilities Associates (“EUA”), comprised in part by Blackstone Valley Electric  
16 Company (“Blackstone Valley”) and Newport Electric Corporation (“Newport Electric”),  
17 prior to the merger with National Grid. I will explain the reason for this particular  
18 change below.  
19

20 **Q. Why are changes required to address the needs of former customers of Eastern**  
21 **Utilities Associates?**

22 A. These revisions are required because the facilities used by these customers differ  
23 somewhat from those described in the Company’s existing tariff. After the

1       EUA/National Grid merger, the Company did not require customers of the former  
2       Blackstone Valley or Newport Electric to change out the facilities they already had in  
3       place, but it only offered the facilities described in its existing tariff for any new  
4       installations. The new language being proposed by the Company formalizes the fact that  
5       these customers may retain their existing facilities in place, but that similar facilities are  
6       not available for installation on a going forward basis.

7  
8       **Q.     What changes to the description of existing facilities and rates is the Company**  
9       **proposing to address the needs of customers of the former EUA companies?**

10      **A.**     The Company proposes to add several existing luminaires and a single support (pole) to  
11      specific existing service offerings to properly reflect the facilities used by customers of  
12      the former EUA companies. As part of this proposal, a 400 watt and 1,000 watt mercury  
13      vapor floodlight luminaire are proposed to be added as a closed offering to Rate S-14 at  
14      the same rate as provided in Rate S-10 for the same facilities. Another proposed closed  
15      offering is a 100 watt high pressure sodium vapor shoebox luminaire, which is proposed  
16      to be added to Rate S-10 at a similar rate as is charged for the 100 watt high pressure  
17      sodium vapor roadway luminaire. An additional offering being proposed is a 50 watt  
18      high pressure sodium vapor post top luminaire, proposed to be added to Rate S-10 as a  
19      closed offering and also added to Rate S-14 as an available offering, each having the  
20      same rate as the “Traditional” luminaire in the Decorative Street and Area Lighting  
21      Service proposal as shown on Schedule NG-JEW-4. The single support language being  
22      proposed would be added to Rate S-14 and would cover metallic direct embedded  
23      standards. The proposed closed rate for these existing steel embedded post top standards

1 would be similar to the rate applied to non-metallic standards without a foundation under  
2 the same tariff provision. Lastly, a 150 watt high pressure sodium vapor roadway  
3 luminaire is proposed as an available facility offering in both Rate S-10 and Rate S-14.  
4 The proposed rate associated with this roadway luminaire would be similar to the rate for  
5 the 100 watt high pressure sodium vapor roadway luminaire within the respective tariffs.  
6 The inclusion of these facilities and rates transition all former EUA customers into a  
7 single rate schedule and eliminates any credits associated with rate  
8 discrepancies/customer impacts as addressed in Docket No. R.I.P.U.C. 3617.  
9

10 **Q. Why is the Company proposing that most of these facility offerings remain closed to**  
11 **new customers?**

12 A. The facilities provided under the closed offerings do not meet current Company  
13 engineering standards or governmental regulations or lack sufficient customer demand.  
14

15 **Q. Why is the Company proposing to continue to provide the 150 watt high pressure**  
16 **sodium vapor luminaire facility to customers seeking to install them?**

17 A. The Company has found that the 150 watt high pressure vapor luminaire is popular  
18 among customers who are particularly concerned about obtaining an economical, energy  
19 efficient lighting alternative. Because of the continued interest in this facility offering,  
20 the Company proposes not to close it to new installations.  
21

22 **Q. Has the Company developed new luminaire and support rates for the facilities**  
23 **referenced above?**

1 A. Yes. The Company is proposing revised rates for luminaires and supports in its current  
2 lighting tariffs. The rate for the Traditional post top luminaire can be found in the  
3 Decorative Street and Area Lighting proposal. The remaining revised rates are included  
4 in the testimony and schedules of Mr. Gorman.

5  
6 **V. Rate S-14 Temporary Turn-Off Provision**

7 **Q. Please describe the provision that the Company is proposing to incorporate in Rate**  
8 **S-14 to address temporary turn-off requests.**

9 A. The present Rate S-14 tariff for use by municipal customers provides for temporary  
10 disconnection subject to a \$25 disconnect charge. The proposed Temporary Turn-Off  
11 provision would provide to the Company a return on the investment left in place to serve  
12 those customers under Rate S-14 who take advantage of this provision, requesting that  
13 their luminaire facilities be made temporarily inoperative for a period of at least one year  
14 but not to exceed three years. This temporary turn-off status is designed to enable  
15 municipal customers to assess traffic safety, public security, and other impacts before  
16 deciding to permanently turn off a light. During the period that a light is temporarily  
17 turned off, the customer would avoid paying any energy charge but would be required to  
18 continue paying the associated facility charges

19  
20 **Q. What occurs if the Customer wishes to have the light turned on prior to the end of**  
21 **the one year temporary turn off period?**

22 A. Upon receipt of a written request from the customer to turn on a specific light, the  
23 Company will return the light to a full service condition. The Company proposes to

1 change the \$25 “Disconnect” charge currently applied at the beginning of the turn off  
2 period to a “Reactivation” charge of \$25 assessed to the customer if the light is returned  
3 to full service prior to the end of the one year temporary turn off period..  
4

5 **VI. Decorative Street and Area Lighting Facility Proposals**

6 **Q. Please describe the Company’s proposal to create a “Decorative Street and Area**  
7 **Lighting” service option, (S-06).**

8 A. The decorative street and area lighting service option is intended to allow the Company to  
9 provide a selection of ornamental or historic style post top luminaires and anchor based  
10 standards. This service option is fundamentally based on Rate S-14, with facility charges  
11 developed utilizing a cost-of-service model similar to other service offerings. This new  
12 offering is designed for lighting facilities that are owned by the Company and would be  
13 available only to customers in areas where the power supply is located underground.  
14

15 **Q. What customers would be eligible for this new service offering?**

16 A. The Company is proposing that this service be made available to municipal customers  
17 responsible for street lighting and/or public areas. Customers would be able to replace  
18 existing street lights with decorative street lights or new decorative street lights could be  
19 installed where none are currently in use.  
20

21 **Q. Has the Company received many inquiries about offering such a service?**

22 A. Yes. The Company has received numerous requests from municipal customers for street  
23 lighting facilities that are more aesthetically pleasing, ornamental or historical in

1 character and that also provide effective lighting for municipal outdoor settings. The  
2 customers making these requests are specifically seeking an option involving Company  
3 owned and maintained equipment.  
4

5 **Q. What are the decorative street and area lighting facilities that the Company is**  
6 **proposing to offer?**

7 A. The Company proposes to offer two additional post top decorative luminaires (“Aspen  
8 Grove” and “Williamsville”) to complement the existing lantern post top luminaire  
9 (“Traditional”), and two decorative standards (“Villager” and “Washington”). These  
10 three styles were selected based on informal consultations with customers and because  
11 they are likely to accommodate the majority of customer requests. These decorative  
12 luminaire and standard facilities can be combined in numerous arrangements, thereby  
13 providing the customer with some degree of variability to develop a desired visual  
14 character with the street lighting infrastructure. In order to install decorative street  
15 lighting, a particular site will require underground electrical service and a foundation to  
16 support the selected standard and luminaire, all of which would be installed and owned  
17 by the Company.  
18

19 **Q. Please describe the decorative street lighting tariff provision that the Company is**  
20 **proposing.**

21 A. The proposed S-06 Decorative Street and Area Lighting Service tariff is included in  
22 Schedule NG-JEW-2. This tariff provision assumes Company ownership, operation and

1 full service maintenance of all decorative street lighting facilities, similar to the  
2 Company's existing Rate S-14 tariff.  
3

4 **Q. What rates are included in this service offering?**

5 A. Decorative street lighting customers would be charged all of the full service rates that  
6 would be charged to any other municipal customer served under the Company's "General  
7 Street and Area" street lighting tariff. The rates for the various facilities that can be  
8 selected by a customer vary based on the particular facilities selected. Each customer  
9 would be charged a luminaire facility charge and a support facility charge to create the  
10 total rate assignment for the completed decorative street lighting assembly. The  
11 Company has included a summary of the proposed luminaire facility and support facility  
12 charges in Schedule NG-JEW-3. In addition to the luminaire and support facilities  
13 charges, customers would be assessed all applicable retail delivery and commodity  
14 service charges.  
15

16 **Q. Has the Company included rate designs for the decorative street and area lighting**  
17 **facilities?**

18 A. Yes. Schedules NG-JEW-4, NG-JEW-5 and NG-JEW-6 contain the rate designs for the  
19 Traditional, Aspen Grove and Williamsville post top luminaires, respectively. Schedules  
20 NG-JEW-7 and NG-JEW-8 contain the rate designs for the Villager and Washington  
21 decorative standards, respectively. All the rate designs are prepared consistently and  
22 result in an annual fixed facility charge per luminaire or standard.  
23

1 **Q. Describe what equipment is covered by a luminaire or support facility charge.**

2 A. The luminaire facility charge covers the use of the corresponding decorative luminaire,  
3 including the necessary wiring and serviceable components of lamp and photoelectric  
4 control, and if applicable, a cross-arm (in the case of twin-mounted luminaires). The  
5 support facility charge covers the use of the corresponding decorative standard, a  
6 concrete foundation, and an underground street lighting circuit service lateral. In the case  
7 of twin-mounted luminaires, the cost of two luminaire assemblies and a cross-arm facility  
8 are combined to properly account for all material costs.

9  
10 **Q. What costs are covered by the annual facility charges?**

11 A. The annual facility charge for each of the luminaires includes annual operation and  
12 maintenance costs and the annual carrying charge for the capital investment associated  
13 with the facility. For luminaires, Schedules NG-JEW-4, NG-JEW-5 and NG-JEW-6,  
14 pages 1 and 2, lines (11) and (12) reflect these amounts for each identified facility. The  
15 annual facility charge for each of the supports includes the annual carrying charge for the  
16 capital investment associated with the facility. For supports, Schedules NG-JEW-7 and  
17 NG-JEW-8, page 1, line (19) reflects these amounts for each identified facility.

18  
19 **Q. Please describe the annual operation and maintenance costs that are covered by the**  
20 **facility charge.**

21 A. The annual operation and maintenance costs reflect the annualized cost of component  
22 replacement, routine and preventative maintenance, and related administrative and  
23 general expenses as shown in luminaire Schedules NG-JEW-4, NG-JEW-5 and NG-



1 JEW-6, pages 1 and 2, lines (6) through (11). On lines (6) and (7), the total material cost  
2 is divided by the estimated life of the component, which converts the periodic operation  
3 and maintenance expense cost into an annual cost. The estimated life of the consumable  
4 components associated with each facility has been identified. On line (8), the component  
5 replacement cost also includes the labor associated with replacement.  
6

7 **Q. Why are administrative and general costs included in the rate design?**

8 A. Administrative and general costs are allocated among all rate classes, including outdoor  
9 lighting, based on the operation and maintenance expenses of the rate class. Therefore,  
10 the decorative street and area lighting rates are designed to collect its share of  
11 administrative and general costs.  
12

13 **Q. Why is there an allocation of operation and maintenance expense included in the**  
14 **rate design?**

15 A. Operation and maintenance expenses which are not specifically identified as supporting  
16 outdoor lighting service are shared by all rate classes. With the addition of decorative  
17 street and area lighting, the share of operation and maintenance expenses allocable to  
18 outdoor lighting will increase. Therefore, the decorative street and area lighting rates  
19 should include a proportionate share of operation and maintenance expenses to ensure  
20 that these customers contribute their fair share of these costs.  
21

22 **Q. What other costs are being included in the rate design?**

1 A. The final item to be collected in the decorative street and area lighting rates is the annual  
2 carrying charge, as indicated in Schedules NG-JEW-4, NG-JEW-5 and NG-JEW-6, pages  
3 1 and 2, line (12) for luminaires and Schedules NG-JEW-7 and NG-JEW-8, page 1, line  
4 (19) for supports. This amount represents a first year embedded cost of service annual  
5 return on the Company's initial capital investment in decorative street lights, including  
6 depreciation and federal and municipal taxes. This carrying charge is calculated in  
7 Schedule NG-JEW-9 by determining the annual rates of return, federal income taxes,  
8 depreciation and property taxes. The carrying charge is applied to each decorative  
9 luminaire and support assembly's total capital investment to arrive at the annual carrying  
10 charge that should be included in the decorative street and area lighting rates.  
11

12 **Q. Has the carrying charge been applied to all types of decorative luminaire and**  
13 **support assemblies?**

14 A. The carrying charge of 19.27% has been applied to all new decorative street and area  
15 lighting facilities. The application of the carrying charge is shown in Schedules NG-  
16 JEW-4, NG-JEW-5 and NG-JEW-6, line (14) on pages 3 and 5 and line (15) on pages 4  
17 and 6 for the decorative luminaire assemblies and in Schedules NG-JEW-7 and NG-JEW-  
18 8, page 1, line (19) for the decorative support assemblies.  
19

20 **Q. How are the related energy charges determined?**

21 A. Similar to the Company's existing street lighting tariff provisions, the energy  
22 consumption is unmetered and utilizes an established, industry standard, methodology  
23 based upon the specific lamp type and wattage in accordance with a predetermined (dusk-

1 to-dawn) operational model. The energy charge includes all retail delivery charges and,  
2 if applicable, Last Resort Service or Standard Offer Service charges assessed to  
3 customers on a per kWh basis and are itemized on the cover sheet to the tariff.  
4

5 **Q. Will the customer have the ability to discontinue decorative street and area lighting**  
6 **service installed upon its request?**

7 A. The customer will be able to simply discontinue service based upon a request for removal  
8 or replacement of the decorative street and area lights. However, if the customer requests  
9 removal or replacement, the customer would be required to pay the Company for the  
10 unamortized balance of the street light plus cost of removal less salvage value. The  
11 reason that a termination payment is proposed to be included in the tariff is that  
12 decorative street and area lighting facilities involve a significant capital investment on the  
13 part of the Company on behalf of the customer. If the customer later chooses to  
14 discontinue decorative street and area lighting service, the Company should be  
15 reimbursed for its remaining investment in these facilities. Without such reimbursement,  
16 the unrecovered portion of the Company's costs would need to be recovered from other  
17 non-decorative street lighting services.  
18

19 **VII. Metal Halide Floodlight Offering**

20 **Q. Please summarize the Company's proposal to introduce new luminaire facility**  
21 **charges that will provide 400 watt and 1,000 watt metal halide floodlights.**

22 A. The Company is proposing to offer luminaire facility rates for two wattages of metal  
23 halide floodlight luminaires for which there are currently a limited quantity of facilities in

1 service for customers of the former EUA. These luminaire facilities are used for area  
2 lighting applications (i.e., not for street lighting). The Company proposes to offer the 400  
3 watt metal halide floodlight luminaire and the 1,000 watt metal halide floodlight  
4 luminaire, with the 1,000 watt luminaire offering being available only for luminaries  
5 currently in service. The respective offerings would be available within Rate S-10 and  
6 Rate S-14. (See Schedule NG-HSG-5 for a summary of the proposed rates and Schedule  
7 NG-JEW-10 for the derivation of the replacement cost.)  
8

9 **Q. Why is the Company proposing to offer the metal halide luminaire facilities?**

10 A. The metal halide lamp source provides a white light, as opposed to the high pressure  
11 sodium vapor lamps used for street lighting purposes which provide a yellow light.  
12 Many customers prefer a white light because of the particular illumination applications  
13 for which the area lighting is used. For example, auto dealerships require white  
14 floodlighting to promote accurate color rendering when displaying their vehicles at night.  
15

16 **Q. Why is the Company proposing to only offer the 400 watt metal halide floodlight**  
17 **luminaire for new installations?**

18 A. The cost and operational considerations of lamp life and overall equipment longevity are  
19 superior for the 400 watt as compared to the 1,000 watt unit.  
20

21 **Q. Why is the Company proposing new rates for the metal halide luminaire facilities**  
22 **rather than continue using the rates that apply currently?**

1 A. The current rates were developed for 400 watt high pressure sodium vapor luminaries and  
2 under collect for the capital investment and service costs associated with the metal halide  
3 facilities.  
4

5 **VIII. Proposed New Lighting Service Charge**

6 **Q. Please explain the new Lighting Service Charge and the reason the Company**  
7 **believes it is needed.**

8 A. The Company is proposing the Lighting Service Charge because there are numerous  
9 occasions when the Company's personnel respond to a customer's request for attention to  
10 a lighting facility where the problem requiring attention was unrelated to equipment  
11 owned by the Company. The Company does not propose to assess a Lighting Service  
12 Charge in those situations where the problem requiring attention arises from Company  
13 owned facilities.  
14

15 **Q. When would the proposed Lighting Service Charge apply?**

16 A. The Lighting Service Charge would be applicable following any response to a Customer  
17 request for service where the work performed by the Company relates to Customer  
18 owned equipment other than that specified in the respective service offering. The  
19 Lighting Service Charge would not be applied to the Customer if the malfunction of the  
20 Customer's equipment was directly related to the failure of Company owned facilities.  
21

22 **Q. Who would be assessed the Lighting Service Charge?**

1 A. The Lighting Service Charge would be assessed to the street lighting customer, except in  
2 those cases where the malfunction is caused by the failure of a third party attachment and  
3 where there is a supplemental agreement in place among the Company, the street lighting  
4 customer and an attaching party providing that the attaching party shall be a direct  
5 customer of the Company and shall be responsible for the charge.  
6

7 **Q. Has the Company prepared rate designs for the Lighting Service Charge?**

8 A. Yes. Schedule NG-JEW-11 contains the rate design for the Lighting Service Charge  
9

10 **Q. How will the proposed Lighting Service Charge be included in the Company's**  
11 **tariff?**

12 A. A description of the proposed Lighting Service Charge will be included as part of the  
13 Company's Terms and Conditions ("T&C"s) for Distribution Service. The proposed  
14 T&Cs are included in the schedules of Mr. Gorman.  
15

16 **IX. Conclusion**

17 Q. Does this conclude your direct testimony?

18 A. Yes.



## Schedules

Schedule NG-JEW-1	Glossary
Schedule NG-JEW-2	Proposed S-06 Decorative Street and Area Lighting Service Tariff
Schedule NG-JEW-3	Summary of Proposed S-06 Charges
Schedule NG-JEW-4	Proposed Rate Design – Traditional Luminaire
Schedule NG-JEW-5	Proposed Rate Design – Aspen Grove Luminaire
Schedule NG-JEW-6	Proposed Rate Design – Williamsville Luminaire
Schedule NG-JEW-7	Proposed Rate Design – Villager Standard
Schedule NG-JEW-8	Proposed Rate Design – Washington Standard
Schedule NG-JEW-9	Street Lighting Carrying Charge
Schedule NG-JEW-10	Proposed Metal Halide Rate Design
Schedule NG-JEW-11	Calculation of Proposed Lighting Service Charge





## Schedule NG-JEW-1

### Glossary

### **Reference Business Terminology**

The following business terms and associated definitions are provided for clarification.

Assembly	A composition of various lighting facilities to form a functioning outdoor light.
Facility	An individual lighting unit of property, (i.e. luminaire, bracket, etc.).
Lamp	A component device associated with a luminaire that is the source of light, often referred to as a bulb.
Location	A distinct physical placement of the lighting assembly having a unique address.
Lumen	The measure of radiant light emitted from a source.
Luminaire	A facility which is comprised of a lamp, an electrical system including a ballast, starting aid, photoelectric control receptacle, capacitor, and terminal block, an optical system often including a reflector and a refractor lens, and a physical housing including an adjustable mounting assembly.
Pole	The reference to a distribution or street light only wood pole typically supporting aerial or overhead secondary service conductors.
Standard	The reference to a metal or fiberglass lighting support structure typically supplied by underground service conductors.



## Schedule NG-JEW-2

### Proposed S-06 Decorative Street and Area Lighting Service Tariff

THE NARRAGANSETT ELECTRIC COMPANY  
**DECORATIVE STREET AND AREA LIGHTING SERVICE (S-06)**  
Retail Delivery Service

Effective  
July 1, 2009

R.I.P.U.C. No. 2029

Monthly Charge as Adjusted

Rates for Retail Delivery Service

<u>Transmission Charge per kWh</u>	1.074¢
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<u>Non-Bypassable Transition Charge per kWh</u>	0.235¢
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<u>Conservation and Load Management Adjustment per kWh</u>	0.350¢
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Rates for Standard Offer Service or Last Resort Service (Optional)

<u>Standard Offer Service per kWh</u>	per Standard Offer Service tariff
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<u>Last Resort Service per kWh</u>	per Last Resort Service tariff
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**Tax Note:**    The rates listed above do not reflect gross earnings tax or sales taxes (when applicable).  
                  However, such taxes, when applicable, will appear on bills sent to customers.

Other Rate Clauses apply as usual.

THE NARRAGANSETT ELECTRIC COMPANY  
**DECORATIVE STREET AND AREA LIGHTING SERVICE (S-06)**  
RETAIL DELIVERY SERVICE

**AVAILABILITY**

Service is available under this rate for full service, underground served, decorative street and area lighting applications owned by the Company to any Customer, inclusive of municipalities, governmental entity, or other public authority, hereinafter referred to as Customer in accordance with the qualifications and the specifications hereinafter set forth:

1. For municipal-owned or accepted roadways, including those classified as “private areas”, for which the municipal Customer has agreed to supply street and area lighting service.
2. Service under this rate is available to any Customer where the decorative street and area lighting facilities can be provided underground delivery service from existing secondary voltage circuits within a radial distance not to exceed 20 feet. For circumstances requiring underground delivery service in excess of 20 feet, the Customer is responsible to compensate the Company for such excess as a contribution in aid of construction in accordance with all applicable Company policies.
3. Service under this rate is contingent upon Company ownership and maintenance of the underground delivery service supplied decorative street and area lighting facilities.
4. Service under this rate is not available for locations inaccessible by standard Company motorized equipment, limited access highways, bridges, tunnels and the access and egress ramps thereto.
5. Service under this rate is available to a private contractor, developer, or association of customers, wherein the municipality has agreed in writing to accept responsibility for future payment of such lights upon acceptance of applicable streets and areas.
6. In applications where revenue from the planned decorative street and area lighting facilities will be insufficient to compensate for the excessive incremental installation costs associated with, but not limited to, rock excavation or hardscape restoration, the Company, at its sole discretion, may elect not to provide decorative street lighting service or the Customer agrees to compensate the Company for the incremental installation costs as a contribution in aid of construction in accordance with all applicable Company policies.
7. The permanent discontinuance of Decorative Street and Area Lighting Service is available under this tariff to any Customer that has complied with all provisions and terms of this tariff, any related service agreements and has requested permanent discontinuance, whereas, such discontinuance is the cessation of this tariff service and constitutes the complete removal or in-place retirement of the Company’s facilities at the location at which this service is discontinued. Permanent discontinuance of service is further described below.
8. The management of vegetation and/or other adjacent physical conditions which obstruct the normal distribution of light from the specified decorative street and area lighting facilities is the responsibility of the Customer.
9. At the request of the Customer, the Company shall take reasonable actions to procure and install the necessary ancillary equipment, including but not limited to shields, visors, louvers and protective devices, for the purpose of providing special control of light distribution or vandal prevention of the facilities, provided all ancillary equipment costs and associated service charges are the responsibility of the Customer.

THE NARRAGANSETT ELECTRIC COMPANY  
**DECORATIVE STREET AND AREA LIGHTING SERVICE (S-06)**  
RETAIL DELIVERY SERVICE

**I. DECORATIVE STREET AND AREA LIGHTING - FULL SERVICE**

**RATE**

The annual charges below are applicable to all active or closed decorative street and area lighting facilities that have not been discontinued, permanently or temporarily, at the request of the Customer.

1. Luminaire Charges:

An annual charge as enumerated below in the schedule of luminaire assembly prices include luminaire, lamp, photoelectric control and all other components to facilitate its operation. The annual charge per luminaire type twin reflects two (2) luminaire assemblies and a post top decorative twin cross arm.

<u>Lamp Type</u>					Annual
<u>Luminaire Type</u>	Lumen	Nominal		Annual	Luminaire
<u>Luminaire Style</u>	<u>Rating</u>	<u>Wattage</u>	<u>Description</u>	<u>kWh</u>	<u>Charge per Unit</u>
<u>High Pressure Sodium Vapor</u>					
<u>Decorative Post Top</u>					
Traditional	4,000	50	DEC HPS TR 50W	255	\$155.49
Traditional	9,600	100	DEC HPS TR 100W	493	156.80
Aspen Grove	4,000	50	DEC HPS AG 50W	255	239.39
Aspen Grove	9,600	100	DEC HPS AG 100W	493	241.52
Williamsville	4,000	50	DEC HPS WL 50W	255	269.63
Williamsville	9,600	100	DEC HPS WL 100W	493	273.09
<u>Decorative Post Top - Twin</u>					
Traditional	4,000	50	DEC HPS TR-TW 50W	510	334.84
Traditional	9,600	100	DEC HPS TR-TW 100W	986	337.49
Aspen Grove	4,000	50	DEC HPS AG-TW 50W	510	502.64
Aspen Grove	9,600	100	DEC HPS AG-TW 100W	986	506.93
Williamsville	4,000	50	DEC HPS WL-TW 50W	510	563.13
Williamsville	9,600	100	DEC HPS WL-TW 100W	986	570.08

2. Support and Accessory Charges:

An additional annual charge as enumerated below in the schedule of support and accessory prices will be applied to the foregoing charges per luminaire type as stated in Section 1 – Luminaire Charges where the Company is requested to furnish a suitable decorative standard, foundation or other accessory and applicable underground delivery service as identified below, for the sole purpose of supporting a luminaire assembly.



THE NARRAGANSETT ELECTRIC COMPANY  
**DECORATIVE STREET AND AREA LIGHTING SERVICE (S-06)**  
RETAIL DELIVERY SERVICE

<u>Service Type</u>		<u>Annual Support Charge per Unit</u>
<u>Support Type</u>		
<u>Standard Style</u>	<u>Description</u>	
<u>Underground Service</u>		
<u>Decorative Standard</u>		
Villager with Foundation	DEC VILL PT/FDN	\$607.38
Washington with Foundation	DEC WASH PT/FDN	631.69
<u>Accessory Type</u>		
None		

3. Other Fees and Charges:

Additional fees or charges as enumerated below in the schedule of fee and charge prices will be applied per unit application pursuant to applicable Customer requests and/or in association with terms and conditions of separate agreements specific to attachments to the foregoing support types as stated in Section 2 – Support and Accessory Charges. Applicable charges are assessed where the Company is requested by the Customer to provide an individual site visit for the purpose of; investigation and determination of operational malfunction, preventative or proactive maintenance to address vandalism or lighting control, the performance of other specified services, or other such actions which, unless requested by the Customer would otherwise have not been warranted. A charge will not be assessed if, in the sole discretion of the Company, the conditions which created the need for the Customer request were determined to be the result of Company facilities or systems. Applicable fees are assessed on a regular billing schedule based on the terms and conditions of the agreement or license from which they are specified.

<u>Fee or Charge Type</u>	<u>Charge Amount</u>
Lighting Service Charge	See Terms and Conditions for Distribution Service.

**RATE ADJUSTMENT PROVISIONS**

Transmission Service Charge Adjustment

The prices under this rate as set forth under “Monthly Charge” may be adjusted from time to time in the manner described in the Company’s Transmission Service Cost Adjustment Provision.

Transition Charge Adjustment

The prices under this rate as set forth under “Monthly Charge” may be adjusted from time to time in the manner described in the Company’s Non-Bypassable Transition Charge Adjustment Provision.

**THE NARRAGANSETT ELECTRIC COMPANY  
DECORATIVE STREET AND AREA LIGHTING (S-06)  
RETAIL DELIVERY SERVICE**

Standard Offer Adjustment

All Customers served on this rate must pay any charges required pursuant to the terms of the Company's Standard Offer Adjustment Provision, whether or not the Customer is taking or has taken Standard Offer Service.

Conservation and Load Management Adjustment

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Conservation and Load Management Adjustment Provision as from time to time effective in accordance with law.

Customer Credit Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Customer Credit Provision as from time to time effective in accordance with law.

Pension/OPEB Adjustment Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Pension/OPEB Adjustment Provision as from time to time effective in accordance with law.

Inspection and Maintenance Cost Adjustment Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Inspection and Maintenance Cost Adjustment Provision as from time to time effective in accordance with law.

Revenue Decoupling Mechanism Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Revenue Decoupling Mechanism Provision as from time to time effective in accordance with law.

Distribution Adjustment Provision

The amount determined under the preceding provisions shall be adjusted in accordance with the Company's Distribution Adjustment Provision as from time to time effective in accordance with law.

**STANDARD OFFER SERVICE**

Any Customer served under this rate who is eligible for Standard Offer Service shall receive such service pursuant to the Standard Offer Service tariff.

**LAST RESORT SERVICE**

Any Customer served under this rate who does not take its power supply from a non-regulated power producer and is ineligible for Standard Offer Service will receive Last Resort Service pursuant to the Last Resort Service tariff.

THE NARRAGANSETT ELECTRIC COMPANY  
**DECORATIVE STREET AND AREA LIGHTING (S-06)**  
RETAIL DELIVERY SERVICE

**GROSS EARNINGS TAX**

A Rhode Island Gross Earnings Tax adjustment will be applied to the charges determined above in accordance with Rhode Island General Laws.

**HOURS OF OPERATION**

All decorative street and area lights will be operated through the use of a photoelectric device nightly from approximately one-half hour after sunset until approximately one-half hour before sunrise, referred to as dusk-to-dawn, a total of approximately 4,175 hours each year.

**DETERMINATION OF MONTHLY BILL FOR DECORATIVE STREET AND AREA LIGHTING**

The monthly bill will be based on the following:

1. Facility Charges

The Luminaire Charges and the Support and Accessory Charges will be based on the annual rates above divided by the number of days in the calendar year to arrive at a daily rate and multiplied by the actual number of days in the billing period as measured from the date immediately following the prior bill to the current bill date.

2. Energy Charges

Charges per kWh will be based on the annual kWh per luminaire above and include the watts for the ballast and photoelectric control. The monthly kWh amount shall be determined by allocating the number of annual operating hours for lights among the months as shown below. The sum of the monthly kWh for each light equals the annual kWh in this tariff. A daily kWh amount is determined from the monthly amount by dividing monthly kWh by the number of days in a month. The daily kWh amount is multiplied by the actual number of days for each calendar month during the billing period as measured from the date immediately following the prior bill to the current bill date and then multiplied by the charge per kWh.

Monthly Operating Hours

January	442	July	267
February	367	August	301
March	363	September	338
April	309	October	392
May	280	November	418
June	251	December	447

3. Other Fees and Charges

Individual charges for specific Customer requested services will be identified as adjustments on the bill. The representation of applicable fees associated with specific agreement or license terms and conditions between the Customer and the Company will be imposed according to the agreements, licenses or as specified in the Terms and Conditions for Distribution Services and presented as adjustments on the Customer's bill.

**THE NARRAGANSETT ELECTRIC COMPANY  
DECORATIVE STREET AND AREA LIGHTING (S-06)  
RETAIL DELIVERY SERVICE**

**EXCESSIVE DAMAGE**

Excessive damage due to wanton or malicious acts will be charged to the Customer at the actual cost of labor and material required to repair or replace the unit. Excessive damage is defined as any lighting facility component such as pole, standard, luminaire or conductors, being broken or damaged more than once in a twelve month period. Notification of excessive damage will be made to the Customer by the Company prior to billing for repairs.

**ATTACHMENTS**

The Company has exclusive rights of ownership of the facilities defined within this tariff and reserves the privilege and sole discretion to permit the use of such facilities for the support and physical attachment of other, non-company owned equipment under the terms and conditions of a separate agreement or license. The Company may, at its sole discretion, provide electric delivery service as applicable under another tariff. The Company will have no responsibility for the attachments except as defined in the separate agreement or license. The attachment will not adversely impact the street and area lighting as defined within this tariff.

**RELAMPING**

All inoperable lamps which are owned and maintained by the Company will be spot replaced. The Customer is responsible for notifying the Company of inoperable lamps.

**FAILURE OF LIGHTS TO OPERATE**

Should any light or lights, which are owned and maintained by the Company, fail to operate the full period provided therefore, except as hereinafter specified, a deduction will be made from the charges under this rate, other than the Support and Accessory Charge, for such light or lights, upon presentation of a claim therefore from the Customer, equivalent to such part of the annual price thereof, as is equal to the ratio that the time of any outage bears to the annual operating time of such light or lights. The provisions of this paragraph will apply only if such failure is due to some cause or condition which might reasonably have been prevented by the Company and without limiting the generality of the foregoing will not apply in case such failure is due to an act of nature or an act or order of any public authority or accidental or malicious breakage; provided, however, that in the latter case the necessary repairs are made with reasonable dispatch upon notification by the Customer.

**LOCATION OF DECORATIVE STREET AND AREA LIGHTS**

The Customer bears sole responsibility for determining where decorative street and area lights will be placed and the type of lamp/luminaire used at each location. The Company bears no responsibility for, and makes no representations or warranties concerning, the locations and lamps/ luminaires selected by the Customer or the adequacy of the resulting lighting. The Customer, by requesting and accepting service under this rate, hereby shall provide grant and confer to the Company, all necessary easement, rights-of-way and/or consent rights and privileges as is necessary to provide such service in a manner satisfactory to the Company. All applicable permits, fees and/or other charges by others associated with the facilitation of service under this rate are the responsibility of the Customer.

**THE NARRAGANSETT ELECTRIC COMPANY  
DECORATIVE STREET AND AREA LIGHTING (S-06)  
RETAIL DELIVERY SERVICE**

**RELOCATION OF DECORATIVE LIGHTING FACILITIES**

A Customer may request the relocation of existing decorative street and area lighting facilities, owned by the Company, to another Customer specified location which meets all aforementioned terms and conditions of this tariff. The Customer will be responsible for all costs associated with the relocation as determined by the Company including but not limited to the removal/retirement costs of non-transferable facilities, the installation of new facilities as required, the relocation of existing facilities, any electric system reconfiguration and all site restoration. The relocated facilities will continue to be billed under the Customer account as originally represented prior to relocation.

**DISCLAIMER OF LIABILITY**

The Company's duties and obligations under this tariff extend only to the Customer, and not to any third parties. The Company does not assume and specifically disclaims any liability to third parties arising out of the Company's obligations to the Customer under this section.

**PERMANENT DISCONTINUANCE OF LIGHTING FACILITIES**

A Customer may permanently discontinue decorative street and area lighting facilities, owned by the Company, at no cost to the Customer, limited to a quantity not to exceed one (1) percent of the total number of decorative lighting assemblies assigned to the Customer's billing account under this tariff within the given calendar year. The request by a Customer for the permanent discontinuance of decorative street and area lighting in excess of one (1) percent as stated above may be performed by mutual agreement upon payment by the Customer to the Company in an amount equal to the sum of the unamortized balance of the original installation costs, removal or restoration costs and any street light system reconfiguration costs to maintain all other active lights.

**TERM OF AGREEMENT**

The initial term of agreement for Decorative Street and Area Lighting service under this tariff is two (2) years. Upon expiration of the initial term, the agreement will be continuously renewed until such time as either party has given to the other written notice, not less than six (6) months prior to the date on which the party desires to have the agreement terminated.

**TERMS AND CONDITIONS**

The Company's Terms and Conditions in effect from time to time, where applicable hereto and not inconsistent with any specific provisions hereof, are a part of this rate.

Effective: July 1, 2009



## Schedule NG-JEW-3

### Summary of Proposed S-06 Charges

Narragansett Electric Company  
Summary of Proposed Street and Area Lighting Charges

Decorative Luminaire Options -				Decorative Luminaire Options - Twin			
Luminaire Style	<u>Traditional</u> (a)	<u>Aspen Grove</u> (b)	<u>Williamsville</u> (c)	Luminaire Style	<u>Traditional</u> (i)	<u>Aspen Grove</u> (j)	<u>Williamsville</u> (k)
Description	"Traditional" High Pressure Sodium	"Aspen Grove" High Pressure Sodium	"Williamsville" High Pressure Sodium	Description	"Traditional" High Pressure Sodium	"Aspen Grove" High Pressure Sodium	"Williamsville" High Pressure Sodium
Wattage	50	50	50	Wattage	50	50	50
Lumen Size	4,000	4,000	4,000	Lumen Size	4,000	4,000	4,000
Annual kWh Usage	255	255	255	Annual kWh Usage	510	510	510
Annual Luminaire Charge	\$155.49	\$239.39	\$269.63	Annual Luminaire Charge	\$334.84	\$502.64	\$563.13
Luminaire Style	<u>Traditional</u> (d)	<u>Aspen Grove</u> (e)	<u>Williamsville</u> (f)	Luminaire Style	<u>Traditional</u> (l)	<u>Aspen Grove</u> (m)	<u>Williamsville</u> (n)
Description	"Traditional" High Pressure Sodium	"Aspen Grove" High Pressure Sodium	"Williamsville" High Pressure Sodium	Description	"Traditional" High Pressure Sodium	"Aspen Grove" High Pressure Sodium	"Williamsville" High Pressure Sodium
Wattage	100	100	100	Wattage	100	100	100
Lumen Size	9,600	9,600	9,600	Lumen Size	9,600	9,600	9,600
Annual kWh Usage	493	493	493	Annual kWh Usage	986	986	986
Annual Luminaire Charge	\$156.80	\$241.52	\$273.09	Annual Luminaire Charge	\$337.49	\$506.93	\$570.08
Decorative Support Options -				Floodlight Luminaire (Metal Halide)			
Standard Style	<u>Villager</u> (g)	<u>Washington</u> (h)		Luminaire Style	<u>Floodlight</u> (o)	<u>Floodlight</u> (p)	
Description	"Villager"	"Washington"		Description	Metal Halide	Metal Halide	
	Decorative Standard with Foundation and UG Service	Decorative Standard with Foundation and UG Service					
Annual Support Charge	\$607.38	\$631.69		Wattage	400	1,000	
				Lumen Size	32,000	107,800	
				Annual kWh Usage	1,883	4,502	
				Annual Luminaire Charge	\$182.83	\$263.38	

- (a) Schedule NG-JEW-4, Page 1, Line (13)  
(b) Schedule NG-JEW-5, Page 1, Line (13)  
(c) Schedule NG-JEW-6, Page 1, Line (13)  
(d) Schedule NG-JEW-4, Page 2, Line (13)  
(e) Schedule NG-JEW-5, Page 2, Line (13)  
(f) Schedule NG-JEW-6, Page 2, Line (13)  
(g) Schedule NG-JEW-7, Page 1, Line (19)  
(h) Schedule NG-JEW-8, Page 1, Line (19)  
(i) Schedule NG-JEW-4, Page 1, Line (13)  
(j) Schedule NG-JEW-5, Page 1, Line (13)  
(k) Schedule NG-JEW-6, Page 1, Line (13)  
(l) Schedule NG-JEW-4, Page 2, Line (13)  
(m) Schedule NG-JEW-5, Page 2, Line (13)  
(n) Schedule NG-JEW-6, Page 2, Line (13)  
(o) Schedule NG-JEW-10, Page 1, Line (13)  
(p) Schedule NG-JEW-10, Page 1, Line (13)





## Schedule NG-JEW-4

### Proposed Rate Design – Traditional Luminaire

Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/Unit

Decorative "Traditional" Post Top Luminaire				Decorative "Traditional" Post Top Luminaire-Twin					
(1)	Luminaire Style	Traditional		(1)	Luminaire Style	Traditional			
(2)	Lumen Size	4,000		(2)	Lumen Size	4,000			
(3)	Wattage	50		(3)	Wattage	50			
(4)	Annual Burning Hours	4,175		(4)	Annual Burning Hours	4,175			
(5)	Annual kWh Usage	255		(5)	Annual kWh Usage	510			
<u>Operation and Maintenance</u>				<u>Operation and Maintenance</u>					
		Annual				Annual			
		Replacement	Material			Replacement	Material		
	<u>Rated Life</u>	<u>Cost</u>	<u>Cost</u>		<u>Rated Life</u>	<u>Cost</u>	<u>Cost</u>		
	(a)	(b)	(c)		(a)	(b)	(c)		
(6)	Lamp Replacement (Material)	5.7	\$6.47	\$1.14	(6)	Lamp Replacement (Material)	5.7	\$12.94	\$2.27
(7)	Photocell Replacement (Material)	8.9	\$2.86	\$0.32	(7)	Photocell Replacement (Material)	8.9	\$5.72	\$0.64
(8)	Labor and Equipment		\$134.52	\$38.71	(8)	Labor and Equipment		\$166.03	\$47.78
(9)	Allocation of O&M			\$1.62	(9)	Allocation of O&M			\$3.24
(10)	Allocation of A&G (Lamp&Photocell)			<u>\$31.38</u>	(10)	Allocation of A&G (Lamp&Photocell)			<u>\$39.60</u>
(11)	Total Operation and Maintenance			\$73.17	(11)	Total Operation and Maintenance			\$93.53
(12)	Annual Carrying Charge			<u>\$82.32</u>	(12)	Annual Carrying Charge			<u>\$241.31</u>
(13)	Total Annual Cost of Luminaire			\$155.49	(13)	Total Annual Cost of Luminaire			\$334.84

## Sources:

- (1) NG Engineering Construction Standards  
(2) NG Engineering Construction Standards  
(3) NG Engineering Construction Standards  
(4) NECo Billing Standards & NG Engineering Construction Standards  
(5) NG Engineering Construction Standards  
(6a) Estimate - ~50% Lamp Mortality (Reference: Sylvania ECO HPS lamps)  
(6b) NG Procurement - Purchase Agreement Pricing  
(6c) Column (c) = Column (b) ÷ Column (a)  
(7a) Estimate - Average of Manufacturer Life and Company Replacement Practice  
(7b) NG Procurement - Purchase Agreement Pricing

- (7c) Column (c) = Column (b) ÷ Column (a)  
(8b) Page 7 (3), Page 7 (4)  
(8c) Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)  
(9) (Line (5) + 2 kWh for each photocell) x Line (6) of Page 8  
(10) Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 9  
(11) Sum of Lines (6) through (10)  
(12) Page 3, Line (14), Page 4 Line (15)  
(13) Line (11) + Line (12)

Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/Unit

Decorative "Traditional" Post Top Luminaire				Decorative "Traditional" Post Top Luminaire-Twin					
(1)	Luminaire Style	Traditional		(1)	Luminaire Style	Traditional			
(2)	Lumen Size	9,600		(2)	Lumen Size	9,600			
(3)	Wattage	100		(3)	Wattage	100			
(4)	Annual Burning Hours	4,175		(4)	Annual Burning Hours	4,175			
(5)	Annual kWh Usage	493		(5)	Annual kWh Usage	986			
<b><u>Operation and Maintenance</u></b>				<b><u>Operation and Maintenance</u></b>					
		Rated Life	Replacement Cost	Annual Material Cost		Rated Life	Replacement Cost	Annual Material Cost	
		(a)	(b)	(c)		(a)	(b)	(c)	
(6)	Lamp Replacement (Material)	5.7	\$6.16	\$1.08	(6)	Lamp Replacement (Material)	5.7	\$12.32	\$2.16
(7)	Photocell Replacement (Material)	8.9	\$2.86	\$0.32	(7)	Photocell Replacement (Material)	8.9	\$5.72	\$0.64
(8)	Labor and Equipment		\$134.52	\$38.71	(8)	Labor and Equipment		\$166.03	\$47.78
(9)	Allocation of O&M			\$3.12	(9)	Allocation of O&M			\$6.25
(10)	Allocation of A&G (Lamp&Photocell)			<u>\$31.33</u>	(10)	Allocation of A&G (Lamp&Photocell)			<u>\$39.51</u>
(11)	Total Operation and Maintenance			\$74.56	(11)	Total Operation and Maintenance			\$96.34
(12)	Annual Carrying Charge			<u>\$82.24</u>	(12)	Annual Carrying Charge			<u>\$241.15</u>
(13)	Total Annual Cost of Luminaire			\$156.80	(13)	Total Annual Cost of Luminaire			\$337.49

## Sources:

- (1) NG Engineering Construction Standards  
(2) NG Engineering Construction Standards  
(3) NG Engineering Construction Standards  
(4) NECo Billing Standards & NG Engineering Construction Standards  
(5) NG Engineering Construction Standards  
(6a) Estimate - ~50% Lamp Mortality (Reference: Sylvania ECO HPS lamps)  
(6b) NG Procurement - Purchase Agreement Pricing  
(6c) Column (c) = Column (b) ÷ Column (a)  
(7a) Estimate - Average of Manufacturer Life and Company Replacement Practice  
(7b) NG Procurement - Purchase Agreement Pricing

- (7c) Column (c) = Column (b) ÷ Column (a)  
(8b) Page 7 (3), Page 7 (4)  
(8c) Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)  
(9) (Line (5) + 2 kWh for each photocell) x Line (6) of Page 8  
(10) Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 9  
(11) Sum of Lines (6) through (10)  
(12) Page 5, Line (14), Page 6 Line (15)  
(13) Line (11) + Line (12)

## Narragansett Electric Company

**Decorative - "Traditional" Post Top - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style                      Traditional

Tariff Code Description

Decorative "Traditional" Post Top luminaire, 50 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u>		<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
			<u>Percentage</u>					
		(a)	(b)		(c)	(d)	(e)	
	Description							
(1)	Traditional Post Top Luminaire	Each			1	\$93.00	\$93.00	
(2)	50 watt HPS Lamp	Each			1	\$6.47	\$6.47	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each			1	\$2.86	\$2.86	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each			54	\$0.1368	<u>\$7.39</u>	
(5)	Sub-Total Material						\$109.72	Sum of Lines (1) to (4)
	<u>Material Overhead</u>							
(6)	Stores Handling		16.00%				\$17.56	Line (5) x Line (6), Column (b)
(7)	Imprest Stock (connectors/fuse/tape)		3.00%				<u>\$3.29</u>	Line (5) x Line (7), Column (b)
(8)	Sub-Total Material						\$20.85	Sum of Lines (6) to (7)
(9)	Total Material and Overhead						\$130.57	Line (5) + Line (8)
	<u>Crew Cost</u>							
(10)	Labor & Equipment						<u>\$252.27</u>	Page 7, (1)
(11)	Total Material and Labor						\$382.84	Line (9) + Line (10)
(12)	Plant Overhead		11.58%				\$44.34	Line (11) x Line (12), Column (b)
(13)	Total Plant Addition						\$427.18	Line (11) + Line (12)
(14)	Annual Carrying Charge on Plant		19.27%				\$82.32	Line (13) x Line (14), Column (b)

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Source: Lines (1) to (4): NG Engineering Construction Standards  
Line (6), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (7), Column (b): Estimate for non-specified required materials  
Line (12), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (14), Column (b): NECo Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Traditional" Post Top - Twin - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style                      Traditional

Tariff Style Description

Decorative "Traditional" Post Top luminaires - Twin, 50 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u>		<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
			<u>Percentage</u>					
		(a)	(b)		(c)	(d)	(e)	
	Description							
(1)	Traditional Post Top Luminaire	Each			2	\$93.00	\$186.00	
(2)	50 watt HPS Lamp	Each			2	\$6.47	\$12.94	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each			2	\$2.86	\$5.72	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each			120	\$0.1368	\$16.42	
(5)	Twin Arm	Each			1	\$404.00	<u>\$404.00</u>	
(6)	Sub-Total Material						\$625.08	Sum of Lines (1) to (5)
	<u>Material Overhead</u>							
(7)	Stores Handling		16.00%				\$100.01	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%				<u>\$18.75</u>	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material						\$118.76	Sum of Lines (7) to (8)
(10)	Total Material and Overhead						\$743.84	Line (6) + Line (9)
	<u>Crew Cost</u>							
(11)	Labor & Equipment						<u>\$378.42</u>	Page 7, (2)
(12)	Total Material and Labor						\$1,122.26	Line (10) + Line (11)
(13)	Plant Overhead		11.58%				\$129.99	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition						\$1,252.25	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%				\$241.31	Line (14) x Line (15), Column (b)

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Source: Lines (1) to (5): NG Engineering Construction Standards  
Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (8), Column (b): Estimate for non-specified required materials  
Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (15), Column (b): NECo Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Traditional" Post Top - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style                      Traditional

Tariff Style Description

Decorative "Traditional" Post Top luminaire, 100 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		1	\$93.00	\$93.00	
(2)	100 watt HPS Lamp	Each		1	\$6.16	\$6.16	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$2.86	\$2.86	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		54	\$0.1368	<u>\$7.39</u>	
(5)	Sub-Total Material					\$109.41	Sum of Lines (1) to (4)
	<u>Material Overhead</u>						
(6)	Stores Handling		16.00%			\$17.51	Line (5) x Line (6), Column (b)
(7)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$3.28</u>	Line (5) x Line (7), Column (b)
(8)	Sub-Total Material					\$20.79	Sum of Lines (6) to (7)
(9)	Total Material and Overhead					\$130.20	Line (5) + Line (8)
	<u>Crew Cost</u>						
(10)	Labor & Equipment					<u>\$252.27</u>	Page 7, (1)
(11)	Total Material and Labor					\$382.47	Line (9) + Line (10)
(12)	Plant Overhead		11.58%			\$44.30	Line (11) x Line (12), Column (b)
(13)	Total Plant Addition					\$426.77	Line (11) + Line (12)
(14)	Annual Carrying Charge on Plant		19.27%			\$82.24	Line (13) x Line (14), Column (b)

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Source: Lines (1) to (4): NG Engineering Construction Standards  
Line (6), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (7), Column (b): Estimate for non-specified required materials  
Line (12), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (14), Column (b): Neco Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Traditional" Post Top - Twin- Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style                      Traditional

Tariff Style Description

Decorative "Traditional" Post Top luminaires - Twin, 100 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		2	\$93.00	\$186.00	
(2)	100 watt HPS Lamp	Each		2	\$6.16	\$12.32	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		2	\$2.86	\$5.72	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		120	\$0.1368	\$16.42	
(5)	Twin Arm	Each		1	\$404.00	<u>\$404.00</u>	
(6)	Sub-Total Material					\$624.46	Sum of Lines (1) to (5)
	<u>Material Overhead</u>						
(7)	Stores Handling		16.00%			\$99.91	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$18.73</u>	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material					\$118.64	Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$743.10	Line (6) + Line (9)
	<u>Crew Cost</u>						
(11)	Labor & Equipment					<u>\$378.42</u>	Page 7, (2)
(12)	Total Material and Labor					\$1,121.52	Line (10) + Line (11)
(13)	Plant Overhead		11.58%			\$129.90	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$1,251.42	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$241.15	Line (14) x Line (15), Column (b)

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Source: Lines (1) to (5): NG Engineering Construction Standards  
Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (8), Column (b): Estimate for non-specified required materials  
Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (15), Column (b): NECo Annual Carrying Cost



## Narragansett Electric Company

**Decorative - Post Top Luminaire - Labor and Equipment Costs for Initial Installation Analysis****Initial Installation Cost**

Luminaire Type	single Decorative Post Top	twin Decorative Post Top
<b><u>Labor</u></b>		
Crew Leader - Hourly Rate	\$39.41	\$39.41
Lineworker - Hourly Rate	\$36.00	\$36.00
Installation & Travel Time (Minutes)	60	90
Total Direct Labor	\$75.41	\$113.12
ADD: Overhead Labor Cost	113.54% <u>\$85.62</u>	113.54% <u>\$128.44</u>
Total Labor	\$161.03	\$241.56
<b><u>Equipment</u></b>		
Truck-Aerial 45 ML OC	\$51.24	\$51.24
Installation & Travel Time (Minutes)	60	90
Total Equipment	<u>\$51.24</u>	<u>\$76.86</u>
<b><u>Miscellaneous</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Installation & Travel Time (Minutes)	60	90
Total Equipment	<u>\$40.00</u>	<u>\$60.00</u>
Total Labor & Equipment Cost	(1) <u>\$252.27</u>	(2) <u>\$378.42</u>

**Replacement Cost**

Luminaire Type	Decorative Post Top	Decorative Post Top
<b><u>Labor</u></b>		
Trouble Shooter - Hourly Rate	\$39.41	\$39.41
Installation & Travel Time (Minutes)	45	60
Total Direct Labor	\$29.56	\$39.41
ADD: Overhead Labor Cost	113.54% <u>\$33.56</u>	113.54% <u>\$44.75</u>
Total Labor	\$63.12	\$84.16
<b><u>Equipment</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Truck-Aerial 45 ML OC	\$41.87	\$41.87
Installation & Travel Time (Minutes)	45	60
Total Equipment	<u>\$71.40</u>	<u>\$81.87</u>
Total Labor & Equipment Cost	(3) <u>\$134.52</u>	(4) <u>\$166.03</u>

Narragansett Electric Company  
Allocation of Operation and Maintenance Expenses

(1)	Total Distribution O & M Expense			\$50,896,792
(2)	Less: Streetlight Operation	585	\$483,557	
(3)	Less: Streetlight Maintenance	596	<u>\$1,564,051</u>	
(4)	Net Expense			\$48,849,184
(5)	Total kWh Sales			7,733,619,602
(6)	Distribution O&M Expense Per kWh			\$0.00631

- (1) FERC Form 1, Page 322, Line 156
- (2) FERC Form 1, Page 322, Line 139
- (3) FERC Form 1, Page 322, Line 152
- (4) Line (1) - Line (2) - Line (3)
- (5) Calendar year 2008 kWh sales
- (6) Line (4) ÷ Line (5), truncated after 5 decimal places

Narragansett Electric Company  
Allocation of Administrative and General Expenses

(1) Total Distribution O & M Expense		\$50,896,792
(2) Administrative & General Expense	\$58,385,832	
(3) Less Employee Benefits	<u>\$18,624,741</u>	
(4) A&G Expense excluding benefits		\$39,761,091
(5) Percentage Allocation For A & G Expense		78.12%

Calculation of Administrative & General Expense:

(6) Total Administrative & General Expenses	\$61,226,753
(7) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(8) Average Annual Percent of A & G Expense Charged to the IFA (5)	4.64%
(9) Total A & G Expense Allocable to the IFA	<u>\$2,840,921</u>
(10) A&G Expense Allocable to Distribution	<u>\$58,385,832</u>

Calculation of Benefits Expense:

(11) Total Employee Benefits	\$19,530,978
(12) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(13) Average Annual Percent of A & G Expense Charged to the IFA	4.64%
(14) Total A & G Expense Allocable to the IFA	<u>\$906,237</u>
(15) A&G Expense Allocable to Distribution	<u>\$18,624,741</u>

- (1) FERC Form 1, Page 322, Line 156
- (2) From Line (10)
- (3) From Line (15)
- (4) Line (2) - Line (3)
- (5) Line (4) ÷ Line (1)
- (6) FERC Form 1, Page 323, Line 194
- (8) Workpaper NG-RLO 3
- (9) Line (6) \* Line (8)
- (10) Line (6) - Line (9)
- (11) FERC Form 1, Page 323, Line 187
- (13) Workpaper NG-RLO 3
- (14) Line (11) \* Line (13)
- (15) Line (11) - Line (14)



## Schedule NG-JEW-5

### Proposed Rate Design – Aspen Grove Luminaire

Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/Unit

Decorative "Aspen Grove" Post Top Luminaire				Decorative "Aspen Grove" Post Top Luminaire-Twin					
(1)	Luminaire Style	Aspen Grove		(1)	Luminaire Style	Aspen Grove			
(2)	Lumen Size	4,000		(2)	Lumen Size	4,000			
(3)	Wattage	50		(3)	Wattage	50			
(4)	Annual Burning Hours	4,175		(4)	Annual Burning Hours	4,175			
(5)	Annual kWh Usage	255		(5)	Annual kWh Usage	510			
<u>Operation and Maintenance</u>				<u>Operation and Maintenance</u>					
		Annual				Annual			
		Replacement	Material			Replacement	Material		
	<u>Rated Life</u>	<u>Cost</u>	<u>Cost</u>		<u>Rated Life</u>	<u>Cost</u>	<u>Cost</u>		
	(a)	(b)	(c)		(a)	(b)	(c)		
(6)	Lamp Replacement (Material)	5.7	\$6.47	\$1.14	(6)	Lamp Replacement (Material)	5.7	\$12.94	\$2.27
(7)	Photocell Replacement (Material)	8.9	\$2.86	\$0.32	(7)	Photocell Replacement (Material)	8.9	\$5.72	\$0.64
(8)	Labor and Equipment		\$134.52	\$38.71	(8)	Labor and Equipment		\$166.03	\$47.78
(9)	Allocation of O&M			\$1.62	(9)	Allocation of O&M			\$3.24
(10)	Allocation of A&G (Lamp&Photocell)			<u>\$31.38</u>	(10)	Allocation of A&G (Lamp&Photocell)			<u>\$39.60</u>
(11)	Total Operation and Maintenance			\$73.17	(11)	Total Operation and Maintenance			\$93.53
(12)	Annual Carrying Charge			<u>\$166.22</u>	(12)	Annual Carrying Charge			<u>\$409.11</u>
(13)	Total Annual Cost of Luminaire			\$239.39	(13)	Total Annual Cost of Luminaire			\$502.64

## Sources:

- (1) NG Engineering Construction Standards  
(2) NG Engineering Construction Standards  
(3) NG Engineering Construction Standards  
(4) NECo Billing Standards & NG Engineering Construction Standards  
(5) NG Engineering Construction Standards  
(6a) Estimate - ~50% Lamp Mortality (Reference: Sylvania ECO HPS lamps)  
(6b) NG Procurement - Purchase Agreement Pricing  
(6c) Column (c) = Column (b) ÷ Column (a)  
(7a) Estimate - Average of Manufacturer Life and Company Replacement Practice  
(7b) NG Procurement - Purchase Agreement Pricing

- (7c) Column (c) = Column (b) ÷ Column (a)  
(8b) Page 7 (3), Page 7 (4)  
(8c) Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)  
(9) (Line (5) + 2 kWh for each photocell) x Line (6) of Page 8  
(10) Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 9  
(11) Sum of Lines (6) through (10)  
(12) Page 3, Line (14), Page 4 Line (15)  
(13) Line (11) + Line (12)

Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/Unit

<u>Decorative "Aspen Grove" Post Top Luminaire</u>				<u>Decorative "Aspen Grove" Post Top Luminaire-Twin</u>			
(1) Luminaire Style	Aspen Grove			(1) Luminaire Style	Aspen Grove		
(2) Lumen Size	9,600			(2) Lumen Size	9,600		
(3) Wattage	100			(3) Wattage	100		
(4) Annual Burning Hours	4,175			(4) Annual Burning Hours	4,175		
(5) Annual kWh Usage	493			(5) Annual kWh Usage	986		
<b><u>Operation and Maintenance</u></b>				<b><u>Operation and Maintenance</u></b>			
	<u>Rated Life</u>	<u>Replacement Cost</u>	<u>Annual Material Cost</u>		<u>Rated Life</u>	<u>Replacement Cost</u>	<u>Annual Material Cost</u>
	(a)	(b)	(c)		(a)	(b)	(c)
(6) Lamp Replacement (Material)	5.7	\$6.16	\$1.08	(6) Lamp Replacement (Material)	5.7	\$12.32	\$2.16
(7) Photocell Replacement (Material)	8.9	\$2.86	\$0.32	(7) Photocell Replacement (Material)	8.9	\$5.72	\$0.64
(8) Labor and Equipment		\$134.52	\$38.71	(8) Labor and Equipment		\$166.03	\$47.78
(9) Allocation of O&M			\$3.12	(9) Allocation of O&M			\$6.25
(10) Allocation of A&G (Lamp&Photocell)			<u>\$31.33</u>	(10) Allocation of A&G (Lamp&Photocell)			<u>\$39.51</u>
(11) Total Operation and Maintenance			\$74.56	(11) Total Operation and Maintenance			\$96.34
(12) Annual Carrying Charge			<u>\$166.96</u>	(12) Annual Carrying Charge			<u>\$410.59</u>
(13) Total Annual Cost of Luminaire			\$241.52	(13) Total Annual Cost of Luminaire			\$506.93

## Sources:

- (1) NG Engineering Construction Standards  
(2) NG Engineering Construction Standards  
(3) NG Engineering Construction Standards  
(4) NECo Billing Standards & NG Engineering Construction Standards  
(5) NG Engineering Construction Standards  
(6a) Estimate - ~50% Lamp Mortality (Reference: Sylvania ECO HPS lamps)  
(6b) NG Procurement - Purchase Agreement Pricing  
(6c) Column (c) = Column (b) ÷ Column (a)  
(7a) Estimate - Average of Manufacturer Life and Company Replacement Practice  
(7b) NG Procurement - Purchase Agreement Pricing

- (7c) Column (c) = Column (b) ÷ Column (a)  
(8b) Page 7 (3), Page 7 (4)  
(8c) Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)  
(9) (Line (5) + 2 kWh for each photocell) x Line (6) of Page 8  
(10) Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 9  
(11) Sum of Lines (6) through (10)  
(12) Page 5, Line (14), Page 6 Line (15)  
(13) Line (11) + Line (12)

Narragansett Electric Company

**Decorative - "Aspen Grove" Post Top - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style                      Aspen Grove

Tariff Style Description

Decorative "Aspen Grove" Post Top luminaire, 50 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		1	\$420.90	\$420.90	
(2)	50 watt HPS Lamp	Each		1	\$6.47	\$6.47	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$2.86	\$2.86	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		54	\$0.1368	<u>\$7.39</u>	
(5)	Sub-Total Material					\$437.62	Sum of Lines (1) to (4)
	<u>Material Overhead</u>						
(6)	Stores Handling		16.00%			\$70.02	Line (5) x Line (6), Column (b)
(7)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$13.13</u>	Line (5) x Line (7), Column (b)
(8)	Sub-Total Material					\$83.15	Sum of Lines (6) to (7)
(9)	Total Material and Overhead					\$520.77	Line (5) + Line (8)
	<u>Crew Cost</u>						
(10)	Labor & Equipment					<u>\$252.27</u>	Page 7, (1)
(11)	Total Material and Labor					\$773.04	Line (9) + Line (10)
(12)	Plant Overhead		11.58%			\$89.54	Line (11) x Line (12), Column (b)
(13)	Total Plant Addition					\$862.58	Line (12) + Line (13)
(14)	Annual Carrying Charge on Plant		19.27%			\$166.22	Line (13) x Line (14), Column (b)

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Source: Lines (1) to (4): NG Engineering Construction Standards  
Line (6), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (7), Column (b): Estimate for non-specified required materials  
Line (12), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (14), Column (b): Neco Annual Carrying Cost



## Narragansett Electric Company

**Decorative - "Aspen Grove" Post Top - Twin - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style                      Aspen Grove

Tariff Style Description

Decorative "Aspen Grove" Post Top luminaire, 50 watt, high pressure sodium - Twin

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u> <u>Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		2	\$420.90	\$841.80	
(2)	50 watt HPS Lamp	Each		2	\$6.47	\$12.94	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		2	\$2.86	\$5.72	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		120	\$0.1368	\$16.42	
(5)	Twin Arm	Each		1	\$404.00	<u>\$404.00</u>	
(6)	Sub-Total Material					\$1,280.88	Sum of Lines (1) to (5)
	<u>Material Overhead</u>						
(7)	Stores Handling		16.00%			\$204.94	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$38.43</u>	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material					\$243.37	Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$1,524.25	Line (6) + Line (9)
	<u>Crew Cost</u>						
(11)	Labor & Equipment					<u>\$378.42</u>	Page 7, (2)
(12)	Total Material and Labor					\$1,902.67	Line (10) + Line (11)
(13)	Plant Overhead		11.58%			\$220.38	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$2,123.05	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$409.11	Line (14) x Line (15), Column (b)

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Source: Lines (1) to (5): NG Engineering Construction Standards  
Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (8), Column (b): Estimate for non-specified required materials  
Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (15), Column (b): Neco Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Aspen Grove" Post Top - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style          Aspen Grove

Tariff Style Description

Decorative "Aspen Grove" Post Top luminaire, 100 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u> <u>Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		1	\$424.10	\$424.10	
(2)	100 watt HPS Lamp	Each		1	\$6.16	\$6.16	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$2.86	\$2.86	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		54	\$0.1368	<u>\$7.39</u>	
(5)	Sub-Total Material					\$440.51	Sum of Lines (1) to (4)
	<u>Material Overhead</u>						
(6)	Stores Handling		16.00%			\$70.48	Line (5) x Line (6), Column (b)
(7)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$13.22</u>	Line (5) x Line (7), Column (b)
(8)	Sub-Total Material					\$83.70	Sum of Lines (6) to (7)
(9)	Total Material and Overhead					\$524.21	Line (5) + Line (8)
	<u>Crew Cost</u>						
(10)	Labor & Equipment					<u>\$252.27</u>	Page 7, (1)
(11)	Total Material and Labor					\$776.48	Line (9) + Line (10)
(12)	Plant Overhead		11.58%			\$89.94	Line (11) x Line (12), Column (b)
(13)	Total Plant Addition					\$866.42	Line (11) + Line (12)
(14)	Annual Carrying Charge on Plant		19.27%			\$166.96	Line (13) x Line (14), Column (b)

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Source: Lines (1) to (4): NG Engineering Construction Standards  
Line (6), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (7), Column (b): Estimate for non-specified required materials  
Line (12), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (14), Column (b): Neco Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Aspen Grove" Post Top - Twin - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style          Aspen Grove

Tariff Style Description

Decorative "Aspen Grove" Post Top luminaire, 100 watt, high pressure sodium - Twin

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u> <u>Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		2	\$424.10	\$848.20	
(2)	100 watt HPS Lamp	Each		2	\$6.16	\$12.32	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		2	\$2.86	\$5.72	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		120	\$0.1368	\$16.42	
(5)	Twin Arm	Each		1	\$404.00	<u>\$404.00</u>	
(6)	Sub-Total Material					\$1,286.66	Sum of Lines (1) to (5)
	<u>Material Overhead</u>						
(7)	Stores Handling		16.00%			\$205.87	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$38.60</u>	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material					\$244.47	Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$1,531.13	Line (6) + Line (9)
	<u>Crew Cost</u>						
(11)	Labor & Equipment					<u>\$378.42</u>	Page 7, (2)
(12)	Total Material and Labor					\$1,909.55	Line (10) + Line (11)
(13)	Plant Overhead		11.58%			\$221.17	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$2,130.72	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$410.59	Line (14) x Line (15), Column (b)

Source: Lines (1) to (5): NG Engineering Construction Standards

Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates

Line (8), Column (b): Estimate for non-specified required materials

Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates

Line (15), Column (b): NECo Annual Carrying Cost

## Narragansett Electric Company

**Decorative - Post Top Luminaire - Labor and Equipment Costs for Initial Installation Analysis****Initial Installation Cost**

Luminaire Type	single Decorative Post Top	twin Decorative Post Top
<b><u>Labor</u></b>		
Crew Leader - Hourly Rate	\$39.41	\$39.41
Lineworker - Hourly Rate	\$36.00	\$36.00
Installation & Travel Time (Minutes)	60	90
Total Direct Labor	\$75.41	\$113.12
ADD: Overhead Labor Cost	113.54% <u>\$85.62</u>	113.54% <u>\$128.44</u>
Total Labor	\$161.03	\$241.56
<b><u>Equipment</u></b>		
Truck-Aerial 45 ML OC	\$51.24	\$51.24
Installation & Travel Time (Minutes)	60	90
Total Equipment	<u>\$51.24</u>	<u>\$76.86</u>
<b><u>Miscellaneous</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Installation & Travel Time (Minutes)	60	90
Total Equipment	<u>\$40.00</u>	<u>\$60.00</u>
Total Labor & Equipment Cost	(1) <u>\$252.27</u>	(2) <u>\$378.42</u>

**Replacement Cost**

Luminaire Type	Decorative Post Top	Decorative Post Top
<b><u>Labor</u></b>		
Trouble Shooter - Hourly Rate	\$39.41	\$39.41
Installation & Travel Time (Minutes)	45	60
Total Direct Labor	\$29.56	\$39.41
ADD: Overhead Labor Cost	113.54% <u>\$33.56</u>	113.54% <u>\$44.75</u>
Total Labor	\$63.12	\$84.16
<b><u>Equipment</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Truck-Aerial 45 ML OC	\$41.87	\$41.87
Installation & Travel Time (Minutes)	45	60
Total Equipment	<u>\$71.40</u>	<u>\$81.87</u>
Total Labor & Equipment Cost	(3) <u>\$134.52</u>	(4) <u>\$166.03</u>

Narragansett Electric Company  
Allocation of Operation and Maintenance Expenses

(1)	Total Distribution O & M Expense			\$50,896,792
(2)	Less: Streetlight Operation	585	\$483,557	
(3)	Less: Streetlight Maintenance	596	<u>\$1,564,051</u>	
(4)	Net Expense			\$48,849,184
(5)	Total kWh Sales			7,733,619,602
(6)	Distribution O&M Expense Per kWh			\$0.00631

- (1) FERC Form 1, Page 322, Line 156
- (2) FERC Form 1, Page 322, Line 139
- (3) FERC Form 1, Page 322, Line 152
- (4) Line (1) - Line (2) - Line (3)
- (5) Calendar year 2008 kWh sales
- (6) Line (4) ÷ Line (5), truncated after 5 decimal places

Narragansett Electric Company  
Allocation of Administrative and General Expenses

(1) Total Distribution O & M Expense		\$50,896,792
(2) Administrative & General Expense	\$58,385,832	
(3) Less Employee Benefits	<u>\$18,624,741</u>	
(4) A&G Expense excluding benefits		\$39,761,091
(5) Percentage Allocation For A & G Expense		78.12%

Calculation of Administrative & General Expense:

(6) Total Administrative & General Expenses	\$61,226,753
(7) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(8) Average Annual Percent of A & G Expense Charged to the IFA (5)	4.64%
(9) Total A & G Expense Allocable to the IFA	<u>\$2,840,921</u>
(10) A&G Expense Allocable to Distribution	<u>\$58,385,832</u>

Calculation of Benefits Expense:

(11) Total Employee Benefits	\$19,530,978
(12) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(13) Average Annual Percent of A & G Expense Charged to the IFA	4.64%
(14) Total A & G Expense Allocable to the IFA	<u>\$906,237</u>
(15) A&G Expense Allocable to Distribution	<u>\$18,624,741</u>

- (1) FERC Form 1, Page 322, Line 156
- (2) From Line (10)
- (3) From Line (15)
- (4) Line (2) - Line (3)
- (5) Line (4) ÷ Line (1)
- (6) FERC Form 1, Page 323, Line 194
- (8) Workpaper NG-RLO 3
- (9) Line (6) \* Line (8)
- (10) Line (6) - Line (9)
- (11) FERC Form 1, Page 323, Line 187
- (13) Workpaper NG-RLO 3
- (14) Line (11) \* Line (13)
- (15) Line (11) - Line (14)



## Schedule NG-JEW-6

### Proposed Rate Design – Williamsville Luminaire



Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/Unit

Decorative "Williamsville" Post Top Luminaire

(1) Luminaire Style	Williamsville
(2) Lumen Size	4,000
(3) Wattage	50
(4) Annual Burning Hours	4,175
(5) Annual kWh Usage	255

Operation and Maintenance

	<u>Rated Life</u>	<u>Replacement Cost</u>	<u>Annual Material Cost</u>
	(a)	(b)	(c)
(6) Lamp Replacement (Material)	5.7	\$6.47	\$1.14
(7) Photocell Replacement (Material)	8.9	\$2.86	\$0.32
(8) Labor and Equipment		\$134.52	\$38.71
(9) Allocation of O&M			\$1.62
(10) Allocation of A&G (Lamp&Photocell)			<u>\$31.38</u>
(11) Total Operation and Maintenance			\$73.17
(12) Annual Carrying Charge			<u>\$196.46</u>
(13) Total Annual Cost of Luminaire			\$269.63

Decorative "Williamsville" Post Top Luminaire-Twin

(1) Luminaire Style	Williamsville
(2) Lumen Size	4,000
(3) Wattage	50
(4) Annual Burning Hours	4,175
(5) Annual kWh Usage	510

Operation and Maintenance

	<u>Rated Life</u>	<u>Replacement Cost</u>	<u>Annual Material Cost</u>
	(a)	(b)	(c)
(6) Lamp Replacement (Material)	5.7	\$12.94	\$2.27
(7) Photocell Replacement (Material)	8.9	\$5.72	\$0.64
(8) Labor and Equipment		\$166.03	\$47.78
(9) Allocation of O&M			\$3.24
(10) Allocation of A&G (Lamp&Photocell)			<u>\$39.60</u>
(11) Total Operation and Maintenance			\$93.53
(12) Annual Carrying Charge			<u>\$469.60</u>
(13) Total Annual Cost of Luminaire			\$563.13

Sources:

- (1) NG Engineering Construction Standards  
(2) NG Engineering Construction Standards  
(3) NG Engineering Construction Standards  
(4) NECo Billing Standards & NG Engineering Construction Standards  
(5) NG Engineering Construction Standards  
(6a) Estimate - ~50% Lamp Mortality (Reference: Sylvania ECO HPS lamps)  
(6b) NG Procurement - Purchase Agreement Pricing  
(6c) Column (c) = Column (b) ÷ Column (a)  
(7a) Estimate - Average of Manufacturer Life and Company Replacement Practice  
(7b) NG Procurement - Purchase Agreement Pricing

- (7c) Column (c) = Column (b) ÷ Column (a)  
(8b) Page 7 (3), Page 7 (4)  
(8c) Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)  
(9) (Line (5) + 2 kWh for each photocell) x Line (6) of Page 8  
(10) Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 9  
(11) Sum of Lines (6) through (10)  
(12) Page 3, Line (14), Page 4 Line (15)  
(13) Line (11) + Line (12)

Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/Unit

Decorative "Williamsville" Post Top Luminaire				Decorative "Williamsville" Post Top Luminaire-Twin					
(1)	Luminaire Style	Williamsville		(1)	Luminaire Style	Williamsville			
(2)	Lumen Size	9,600		(2)	Lumen Size	9,600			
(3)	Wattage	100		(3)	Wattage	100			
(4)	Annual Burning Hours	4,175		(4)	Annual Burning Hours	4,175			
(5)	Annual kWh Usage	493		(5)	Annual kWh Usage	986			
<u>Operation and Maintenance</u>				<u>Operation and Maintenance</u>					
		Annual				Annual			
		Replacement	Material			Replacement	Material		
	<u>Rated Life</u>	<u>Cost</u>	<u>Cost</u>		<u>Rated Life</u>	<u>Cost</u>	<u>Cost</u>		
	(a)	(b)	(c)		(a)	(b)	(c)		
(6)	Lamp Replacement (Material)	5.7	\$6.16	\$1.08	(6)	Lamp Replacement (Material)	5.7	\$12.32	\$2.16
(7)	Photocell Replacement (Material)	8.9	\$2.86	\$0.32	(7)	Photocell Replacement (Material)	8.9	\$5.72	\$0.64
(8)	Labor and Equipment		\$134.52	\$38.71	(8)	Labor and Equipment		\$166.03	\$47.78
(9)	Allocation of O&M			\$3.12	(9)	Allocation of O&M			\$6.25
(10)	Allocation of A&G (Lamp&Photocell)			<u>\$31.33</u>	(10)	Allocation of A&G (Lamp&Photocell)			<u>\$39.51</u>
(11)	Total Operation and Maintenance			\$74.56	(11)	Total Operation and Maintenance			\$96.34
(12)	Annual Carrying Charge			<u>\$198.53</u>	(12)	Annual Carrying Charge			<u>\$473.74</u>
(13)	Total Annual Cost of Luminaire			\$273.09	(13)	Total Annual Cost of Luminaire			\$570.08

## Sources:

- (1) NG Engineering Construction Standards  
(2) NG Engineering Construction Standards  
(3) NG Engineering Construction Standards  
(4) NECo Billing Standards & NG Engineering Construction Standards  
(5) NG Engineering Construction Standards  
(6a) Estimate - ~50% Lamp Mortality (Reference: Sylvania ECO HPS lamps)  
(6b) NG Procurement - Purchase Agreement Pricing  
(6c) Column (c) = Column (b) ÷ Column (a)  
(7a) Estimate - Average of Manufacturer Life and Company Replacement Practice  
(7b) NG Procurement - Purchase Agreement Pricing

- (7c) Column (c) = Column (b) ÷ Column (a)  
(8b) Page 7 (3), Page 7 (4)  
(8c) Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)  
(9) (Line (5) + 2 kWh for each photocell) x Line (6) of Page 8  
(10) Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 9  
(11) Sum of Lines (6) through (10)  
(12) Page 5, Line (14), Page 6 Line (15)  
(13) Line (11) + Line (12)

## Narragansett Electric Company

**Decorative - "Williamsville" Post Top - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style Williamsville

Tariff Style Description

Decorative "Williamsville" Post Top luminaire, 50 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u> <u>Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		1	\$539.10	\$539.10	
(2)	50 watt HPS Lamp	Each		1	\$6.47	\$6.47	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$2.86	\$2.86	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		54	\$0.1368	<u>\$7.39</u>	
(5)	Sub-Total Material					\$555.82	Sum of Lines (1) to (4)
	<u>Material Overhead</u>						
(6)	Stores Handling		16.00%			\$88.93	Line (5) x Line (6), Column (b)
(7)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$16.67</u>	Line (5) x Line (7), Column (b)
(8)	Sub-Total Material					\$105.60	Sum of Lines (6) to (7)
(9)	Total Material and Overhead					\$661.42	Line (5) + Line (8)
	<u>Crew Cost</u>						
(10)	Labor & Equipment					<u>\$252.27</u>	Page 7, (1)
(11)	Total Material and Labor					\$913.69	Line (9) + Line (10)
(12)	Plant Overhead		11.58%			\$105.83	Line (11) x Line (12), Column (b)
(13)	Total Plant Addition					\$1,019.52	Line (11) + Line (12)
(14)	Annual Carrying Charge on Plant		19.27%			\$196.46	Line (13) x Line (14), Column (b)

Source: Lines (1) to (4): NG Engineering Construction Standards  
 Line (6), Column (b): NG Accounting Services - Monthly Allocation Rates  
 Line (7), Column (b): Estimate for non-specified required materials  
 Line (12), Column (b): NG Accounting Services - Monthly Allocation Rates  
 Line (14), Column (b): Neco Annual Carrying Cost

Narragansett Electric Company

**Decorative - "Williamsville" Post Top - Twin - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style Williamsville

Tariff Style Description

Decorative "Williamsville" Post Top luminaire, 50 watt, high pressure sodium - Twin

			Overhead			
	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>
		(a)	(b)	(c)	(d)	(e)
	Description					
(1)	Traditional Post Top Luminaire	Each		2	\$539.10	\$1,078.20
(2)	50 watt HPS Lamp	Each		2	\$6.47	\$12.94
(3)	Photoelectric Control	Each		2	\$2.86	\$5.72
(4)	Wire (Luminaire, 3-#10, 18')	Each		120	\$0.1368	\$16.42
(5)	Twin Arm	Each		1	\$404.00	<u>\$404.00</u>
(6)	Sub-Total Material					\$1,517.28 Sum of Lines (1) to (5)
	<u>Material Overhead</u>					
(7)	Stores Handling		16.00%			\$242.76 Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$45.52</u> Line (6) x Line (8), Column (b)
(9)	Sub-Total Material					\$288.28 Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$1,805.56 Line (6) + Line (9)
	<u>Crew Cost</u>					
(11)	Labor & Equipment					<u>\$378.42</u> Page 7, (2)
(12)	Total Material and Labor					\$2,183.98 Line (10) + Line (11)
(13)	Plant Overhead		11.58%			\$252.96 Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$2,436.94 Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$469.60 Line (14) x Line (15), Column (b)

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Source: Lines (1) to (5): NG Engineering Construction Standards  
Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (8), Column (b): Estimate for non-specified required materials  
Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (15), Column (b): NECo Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Williamsville" Post Top - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style Williamsville

Tariff Style Description

Decorative "Williamsville" Post Top luminaire, 100 watt, high pressure sodium

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		1	\$547.50	\$547.50	
(2)	100 watt HPS Lamp	Each		1	\$6.16	\$6.16	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$2.86	\$2.86	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		54	\$0.1368	<u>\$7.39</u>	
(5)	Sub-Total Material					\$563.91	Sum of Lines (1) to (4)
	<u>Material Overhead</u>						
(6)	Stores Handling		16.00%			\$90.23	Line (5) x Line (6), Column (b)
(7)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$16.92</u>	Line (5) x Line (7), Column (b)
(8)	Sub-Total Material					\$107.15	Sum of Lines (6) to (7)
(9)	Total Material and Overhead					\$671.06	Line (5) + Line (8)
	<u>Crew Cost</u>						
(10)	Labor & Equipment					<u>\$252.27</u>	Page 7, (1)
(11)	Total Material and Labor					\$923.33	Line (9) + Line (10)
(12)	Plant Overhead		11.58%			\$106.94	Line (11) x Line (12), Column (b)
(13)	Total Plant Addition					\$1,030.27	Line (11) + Line (12)
(14)	Annual Carrying Charge on Plant		19.27%			\$198.53	Line (13) x Line (14), Column (b)

Source: Lines (1) to (4): NG Engineering Construction Standards  
 Line (6), Column (b): NG Accounting Services - Monthly Allocation Rates  
 Line (7), Column (b): Estimate for non-specified required materials  
 Line (12), Column (b): NG Accounting Services - Monthly Allocation Rates  
 Line (14), Column (b): Neco Annual Carrying Cost

## Narragansett Electric Company

**Decorative - "Williamsville" Post Top - Twin - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style Williamsville

Tariff Style Description

Decorative "Williamsville" Post Top luminaire, 100 watt, high pressure sodium - Twin

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead</u> <u>Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Traditional Post Top Luminaire	Each		2	\$547.50	\$1,095.00	
(2)	100 watt HPS Lamp	Each		2	\$6.16	\$12.32	5.7 Rated Life (Years)
(3)	Photoelectric Control	Each		2	\$2.86	\$5.72	8.9 Rated Life (Years)
(4)	Wire (Luminaire, 3-#10, 18')	Each		120	\$0.1368	\$16.42	
(5)	Twin Arm	Each		1	\$404.00	<u>\$404.00</u>	
(6)	Sub-Total Material					\$1,533.46	Sum of Lines (1) to (5)
	<u>Material Overhead</u>						
(7)	Stores Handling		16.00%			\$245.35	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$46.00</u>	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material					\$291.35	Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$1,824.81	Line (6) + Line (9)
	<u>Crew Cost</u>						
(11)	Labor & Equipment					<u>\$378.42</u>	Page 7, (2)
(12)	Total Material and Labor					\$2,203.23	Line (10) + Line (11)
(13)	Plant Overhead		11.58%			\$255.19	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$2,458.42	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$473.74	Line (14) x Line (15), Column (b)

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Source: Lines (1) to (5): NG Engineering Construction Standards  
Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (8), Column (b): Estimate for non-specified required materials  
Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (15), Column (b): NECo Annual Carrying Cost

## Narragansett Electric Company

**Decorative - Post Top Luminaire - Labor and Equipment Costs for Initial Installation Analysis****Initial Installation Cost**

Luminaire Type	single Decorative Post Top	twin Decorative Post Top
<b><u>Labor</u></b>		
Crew Leader - Hourly Rate	\$39.41	\$39.41
Lineworker - Hourly Rate	\$36.00	\$36.00
Installation & Travel Time (Minutes)	60	90
Total Direct Labor	\$75.41	\$113.12
ADD: Overhead Labor Cost	113.54% <u>\$85.62</u>	113.54% <u>\$128.44</u>
Total Labor	\$161.03	\$241.56
<b><u>Equipment</u></b>		
Truck-Aerial 45 ML OC	\$51.24	\$51.24
Installation & Travel Time (Minutes)	60	90
Total Equipment	<u>\$51.24</u>	<u>\$76.86</u>
<b><u>Miscellaneous</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Installation & Travel Time (Minutes)	60	90
Total Equipment	<u>\$40.00</u>	<u>\$60.00</u>
Total Labor & Equipment Cost	(1) <u>\$252.27</u>	(2) <u>\$378.42</u>

**Replacement Cost**

Luminaire Type	Decorative Post Top	Decorative Post Top
<b><u>Labor</u></b>		
Trouble Shooter - Hourly Rate	\$39.41	\$39.41
Installation & Travel Time (Minutes)	45	60
Total Direct Labor	\$29.56	\$39.41
ADD: Overhead Labor Cost	113.54% <u>\$33.56</u>	113.54% <u>\$44.75</u>
Total Labor	\$63.12	\$84.16
<b><u>Equipment</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Truck-Aerial 45 ML OC	\$41.87	\$41.87
Installation & Travel Time (Minutes)	45	60
Total Equipment	<u>\$71.40</u>	<u>\$81.87</u>
Total Labor & Equipment Cost	(3) <u>\$134.52</u>	(4) <u>\$166.03</u>

Narragansett Electric Company  
Allocation of Operation and Maintenance Expenses

(1)	Total Distribution O & M Expense			\$50,896,792
(2)	Less: Streetlight Operation	585	\$483,557	
(3)	Less: Streetlight Maintenance	596	<u>\$1,564,051</u>	
(4)	Net Expense			\$48,849,184
(5)	Total kWh Sales			7,733,619,602
(6)	Distribution O&M Expense Per kWh			\$0.00631

- (1) FERC Form 1, Page 322, Line 156
- (2) FERC Form 1, Page 322, Line 139
- (3) FERC Form 1, Page 322, Line 152
- (4) Line (1) - Line (2) - Line (3)
- (5) Calendar year 2008 kWh sales
- (6) Line (4) ÷ Line (5), truncated after 5 decimal places



Narragansett Electric Company  
Allocation of Administrative and General Expenses

(1) Total Distribution O & M Expense		\$50,896,792
(2) Administrative & General Expense	\$58,385,832	
(3) Less Employee Benefits	<u>\$18,624,741</u>	
(4) A&G Expense excluding benefits		\$39,761,091
(5) Percentage Allocation For A & G Expense		78.12%

Calculation of Administrative & General Expense:

(6) Total Administrative & General Expenses	\$61,226,753
(7) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(8) Average Annual Percent of A & G Expense Charged to the IFA (5)	4.64%
(9) Total A & G Expense Allocable to the IFA	<u>\$2,840,921</u>
(10) A&G Expense Allocable to Distribution	<u>\$58,385,832</u>

Calculation of Benefits Expense:

(11) Total Employee Benefits	\$19,530,978
(12) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(13) Average Annual Percent of A & G Expense Charged to the IFA	4.64%
(14) Total A & G Expense Allocable to the IFA	<u>\$906,237</u>
(15) A&G Expense Allocable to Distribution	<u>\$18,624,741</u>

- (1) FERC Form 1, Page 322, Line 156
- (2) From Line (10)
- (3) From Line (15)
- (4) Line (2) - Line (3)
- (5) Line (4) ÷ Line (1)
- (6) FERC Form 1, Page 323, Line 194
- (8) Workpaper NG-RLO 3
- (9) Line (6) \* Line (8)
- (10) Line (6) - Line (9)
- (11) FERC Form 1, Page 323, Line 187
- (13) Workpaper NG-RLO 3
- (14) Line (11) \* Line (13)
- (15) Line (11) - Line (14)



## Schedule NG-JEW-7

### Proposed Rate Design – Villager Standard



## Narragansett Electric Company

**Decorative - Support - Labor and Equipment Costs for Initial Installation Analysis****Initial Installation Cost**

Description	Decorative Standard (Anchor Base) w/ Foundation and Underground Service	
	Decorative Standard	Ground Assembly
<b><u>Labor</u></b>		
Crew Leader - Hourly Rate	\$39.41	\$39.41
Lineworker - Hourly Rate	\$36.00	\$36.00
Installation & Travel Time (Minutes)	40	20
Total Direct Labor	\$50.27	\$25.14
ADD: Overhead Labor Cost	113.54% <u>\$57.08</u>	113.54% <u>\$28.54</u>
Total Labor	\$107.35	\$53.68
<b><u>Equipment</u></b>		
Truck - Class 3	\$15.70	\$15.70
Installation & Travel Time (Minutes)	40	20
Total Equipment	<u>\$10.47</u>	<u>\$5.23</u>
<b><u>Miscellaneous</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Installation & Travel Time (Minutes)	40	20
Total Equipment	<u>\$26.67</u>	<u>\$13.33</u>
Total Labor & Equipment Cost	(1) <u>\$144.49</u>	(2) <u>\$72.24</u>

**Initial Installation Cost**

Description	Foundation Install		Underground Service Install	
<b><u>Labor</u></b>				
Working Foreman	\$34.10		\$34.10	
Laborer (3rd Class)	\$26.62		\$26.62	
Laborer (3rd Class)	\$26.62		\$26.62	
Equipment Operator	\$19.12		\$19.12	
Installation & Travel Time (Minutes)	120		60	
Total Direct Labor	\$212.92			\$106.46
ADD: Overhead Labor Cost	113.54%	<u>\$241.75</u>	113.54%	<u>\$120.87</u>
Total Labor	\$454.67			\$227.33
<b><u>Equipment</u></b>				
Truck - Class 3	\$15.70		\$15.70	
Back Hoe	\$12.00		\$12.00	
Dump Truck	\$10.95		\$10.95	
Installation & Travel Time (Minutes)	120		60	
Total Equipment	<u>\$77.30</u>			<u>\$38.65</u>
<b><u>Miscellaneous</u></b>				
Work Zone Protection/Police Detail	\$40.00		\$40.00	
Site Restoration	\$100.00		\$100.00	
Installation & Travel Time (Minutes)	120		60	
Total Equipment	<u>\$280.00</u>			<u>\$140.00</u>
Total Labor & Equipment Cost	(3)	<u>\$811.97</u>	(4)	<u>\$405.98</u>



## Schedule NG-JEW-8

### Proposed Rate Design – Washington Standard

Narragansett Electric Company  
Calculation of Annual Support Charge \$/Unit

Service Type                                      Underground Service

Tariff Standard Style                              Washington

Tariff Style Description                              Decorative Metallic "Washington" 14' with Foundation

Material Cost

	Description	Overhead		Qty	Unit Price	Total Price
		Unit of Issue	Percentage			
		(a)	(b)	(c)	(d)	(e)
(1)	Post Top Standard (Washington)	Each		1	\$760.00	\$760.00
(2)	Foundation - Precast Concrete, 4'	Each		1	\$426.40	\$426.40
(3)	High Density Foam Backfill	Each		1	\$56.00	\$56.00
(4)	Ground Assembly	Each		1	\$13.35	\$13.35
(5)	Service Cable (Cable-In-Conduit, 20' radial feed)	Each		54	\$0.1368	<u>\$7.39</u>
(6)	Sub-total Material					\$1,263.14 Sum of Lines (1) to (4)
	<u>Material Overhead</u>					
(7)	Stores Handling		16.00%			\$202.10 Line (6) x (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$37.89</u> Line (6) x (8), Column (b)
(9)	Sub-Total Material					\$239.99 Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$1,503.13 Line (6) + Line (9)
	<u>Installation Cost</u>					
(11)	Installation Cost of Post Top Standard					\$144.49 Page 2, (1)
(12)	Installation Cost of Post Top Standard Foundation					\$811.97 Page 2, (3)
(13)	Installation Cost of Ground Assembly					\$72.24 Page 2, (2)
(14)	Installation Cost of Underground Service Cable					<u>\$405.98</u> Page 2, (4)
(15)	Sub-total Installation					\$1,434.68 Sum of Lines (11) to (14)
(16)	Total Material and Labor					\$2,937.81 Line (10) + Line (15)
(17)	Plant Overhead		11.58%			\$340.27 Line (16) x (17), Column (b)
(18)	Total Plant Addition					\$3,278.08 Line (16) + Line (17)
(19)	Annual Carrying Charge on Plant		19.27%			\$631.69 Line (18) x Line (19), Column (b)

Source: Lines (1) to (5): NG Engineering Construction Standards  
Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (8), Column (b): Estimate for non-specified required materials  
Line (17), Column (b): NG Accounting Services - Monthly Allocation Rates  
Line (19), Column (b): NECO Annual Carrying Cost



## Narragansett Electric Company

**Decorative - Support - Labor and Equipment Costs for Initial Installation Analysis****Initial Installation Cost**

Description	Decorative Standard (Anchor Base) w/ Foundation and Underground Service	
	Decorative Standard	Ground Assembly
<b><u>Labor</u></b>		
Crew Leader - Hourly Rate	\$39.41	\$39.41
Lineworker - Hourly Rate	\$36.00	\$36.00
Installation & Travel Time (Minutes)	40	20
Total Direct Labor	\$50.27	\$25.14
ADD: Overhead Labor Cost	113.54% <u>\$57.08</u>	113.54% <u>\$28.54</u>
Total Labor	\$107.35	\$53.68
<b><u>Equipment</u></b>		
Truck - Class 3	\$15.70	\$15.70
Installation & Travel Time (Minutes)	40	20
Total Equipment	<u>\$10.47</u>	<u>\$5.23</u>
<b><u>Miscellaneous</u></b>		
Work Zone Protection/Police Detail	\$40.00	\$40.00
Installation & Travel Time (Minutes)	40	20
Total Equipment	<u>\$26.67</u>	<u>\$13.33</u>
Total Labor & Equipment Cost	(1) <u>\$144.49</u>	(2) <u>\$72.24</u>

**Initial Installation Cost**

Description	Foundation Install		Underground Service Install	
<b><u>Labor</u></b>				
Working Foreman	\$34.10		\$34.10	
Laborer (3rd Class)	\$26.62		\$26.62	
Laborer (3rd Class)	\$26.62		\$26.62	
Equipment Operator	\$19.12		\$19.12	
Installation & Travel Time (Minutes)	120		60	
Total Direct Labor	\$212.92			\$106.46
ADD: Overhead Labor Cost	113.54%	<u>\$241.75</u>	113.54%	<u>\$120.87</u>
Total Labor	\$454.67			\$227.33
<b><u>Equipment</u></b>				
Truck - Class 3	\$15.70		\$15.70	
Back Hoe	\$12.00		\$12.00	
Dump Truck	\$10.95		\$10.95	
Installation & Travel Time (Minutes)	120		60	
Total Equipment	<u>\$77.30</u>			<u>\$38.65</u>
<b><u>Miscellaneous</u></b>				
Work Zone Protection/Police Detail	\$40.00		\$40.00	
Site Restoration	\$100.00		\$100.00	
Installation & Travel Time (Minutes)	120		60	
Total Equipment	<u>\$280.00</u>			<u>\$140.00</u>
Total Labor & Equipment Cost	(3)	<u>\$811.97</u>	(4)	<u>\$405.98</u>



## Schedule NG-JEW-9

### Street Lighting Carrying Charge

Narragansett Electric Company  
**Annual Carrying Charge**

	Capital Structure	Cost Rate	Weighted Return
(1) <u>Capital Costs:</u>			
Long Term Debt	44.8%	6.79%	3.04%
Short Term Debt	5.0%	2.50%	0.13%
Preferred Stock (COP)	0.2%	4.50%	0.01%
Common Equity (COC)	<u>50.0%</u>	<u>11.60%</u>	<u>5.80%</u>
Total			8.98%
(2) <u>Income Taxes:</u>	<u>Rate</u>	<u>Formula</u>	
Federal (FIT)	35%	$((COP + COC)/(1-35\%)*.35) = FIT$	3.12%
(3) Depreciation Expense			5.56%
		Average Depreciable Plant in Svc.	
(4) Property Taxes (000)	<u>Expense</u> \$17,959,422	<u>Plant in Svc.</u> \$1,114,190,156	1.61%
(5) Total Carrying Charge			19.27%

- (1) Schedule NG-RLO-1, Page 39
- (2) See formula
- (3) Straight-line depreciation rate for the 18 year life of streetlights as filed
- (4) Schedule NG-RLO-1, Page 26
- (5) Sum of Lines (1) through (4)



## Schedule NG-JEW-10

### Proposed Metal Halide Floodlight Rate Design

Narragansett Electric Company  
Calculation of Annual Luminaire Charge \$/UnitFloodlight Luminaire (400W Metal Halide)

(1)	Luminaire Style	Floodlight
(2)	Lumen Size	32,000
(3)	Wattage	400
(4)	Annual Operation Hours	4,175
(5)	Annual kWh Usage	1,883

Floodlight Luminaire (1000W Metal Halide)

(1)	Luminaire Style	Floodlight
(2)	Lumen Size	107,800
(3)	Wattage	1,000
(4)	Annual Operation Hours	4,175
(5)	Annual kWh Usage	4,502

Operation and Maintenance

	Rated <u>Life</u> (a)	Replacement <u>Cost</u> (b)	Annual Material <u>Cost</u> (c)
(6) Lamp - Replacement (Material)	3.6	\$8.42	\$2.34
(7) Photoelectric Control - Replacement (Material)	7.8	\$2.86	\$0.37
(8) Labor and Equipment		\$94.52	\$38.37
(9) Allocation of O&M			\$11.89
(10) Allocation of A&G (Lamp & Photoelectric Control)			<u>\$32.09</u>
(11) Total Operation and Maintenance			\$85.06
(12) Annual Carrying Charge			<u>\$97.77</u>
(13) Total Annual Cost of Luminaire			\$182.83

Operation and Maintenance

	Rated <u>Life</u> (a)	Replacement <u>Cost</u> (b)	Annual Material <u>Cost</u> (c)
(6) Lamp - Replacement (Material)	2.2	\$17.37	\$7.90
(7) Photoelectric Control - Replacement (Material)	7.1	\$3.35	\$0.47
(8) Labor and Equipment		\$94.52	\$56.28
(9) Allocation of O&M			\$28.42
(10) Allocation of A&G (Lamp & Photoelectric Control)			<u>\$50.51</u>
(11) Total Operation and Maintenance			\$143.58
(12) Annual Carrying Charge			<u>\$119.80</u>
(13) Total Annual Cost of Luminaire			\$263.38

## Sources:

(1)	NG Engineering Construction Standards	(7c)	Column (c) = Column (b) ÷ Column (a)
(2)	NG Engineering Construction Standards	(8b)	Page 3 (2)
(3)	NG Engineering Construction Standards	(8c)	Column (8c) = Column (8b) ÷ Column (6a) + Column (8b) ÷ Column (7a)
(4)	NECo Billing Standards & NG Engineering Construction Standards	(9)	(Line (5) + 2 kWh for each photocell) x Line (6) of Page 5
(5)	NG Engineering Construction Standards	(10)	Line (6c) + Line (7c) + Line (8c) x Line (5) of Page 6
(6a)	Estimate - ~50% Lamp Mortality (Ref: Sylvania Metalarc Pulse Start MH lamps)	(11)	Sum of Lines (6) through (10)
(6b)	NG Procurement - Purchase Agreement Pricing	(12)	Page 2, Line (15), Page 3, Line (15)
(6c)	Column (c) = Column (b) ÷ Column (a)	(13)	Line (11) + Line (12)
(7a)	Estimate - Average of Manufacturer Life and Company Replacement Practice		
(7b)	NG Procurement - Purchase Agreement Pricing		

## Narragansett Electric Company

**Floodlight - Area Light - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style

Floodlight

Tariff Style Description

Floodlight - Area Light luminaire, 400 watt, metal halide

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
	Description	(a)	(b)	(c)	(d)	(e)	
(1)	Floodlight Luminaire	Each		1	\$122.36	\$122.36	
(2)	MH Lamp - 400 watt	Each		1	\$8.42	\$8.42	3.6 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$2.86	\$2.86	7.8 Rated Life (Years)
(4)	Bracket	Each		1	\$62.70	\$62.70	
(5)	Wire (Luminaire: 3-#10 @ 18')	Each		54	\$0.1368	\$7.39	
(6)	Sub-Total Material					\$203.73	Sum of Lines (1) to (5)
	<u>Material Overhead</u>						
(7)	Stores Handling		16.00%			\$32.60	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			\$6.11	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material Overhead					\$38.71	Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$242.44	Line (6) + Line (9)
	<u>Crew Cost</u>						
(11)	Labor & Equipment					\$212.27	Page 3, (1)
(12)	Total Material and Labor					\$454.71	Line (10) + Line (12)
(13)	Plant Overhead		11.58%			\$52.67	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$507.38	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$97.77	Line (14) x Line (15), Column (b)

Source: Lines (1) to (5): NG Engineering Construction Standards

Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates

Line (8), Column (b): Estimate for non-specified required materials

Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates

Line (15), Column (b): Neco Annual Carrying Cost



## Narragansett Electric Company

**Floodlight - Area Light - Calculation of Annual Carrying Cost for Luminaires**

Tariff Luminaire Style

Floodlight

Tariff Style Description

Floodlight - Area Light luminaire, 1000 watt, metal halide

	<u>Material Cost</u>	<u>Unit of Issue</u>	<u>Overhead Percentage</u>	<u>Qty</u>	<u>Unit Price</u>	<u>Total Price</u>	
		(a)	(b)	(c)	(d)	(e)	
	Description						
(1)	Floodlight Luminaire	Each		1	\$199.00	\$199.00	
(2)	MH Lamp - 1000 watt	Each		1	\$17.37	\$17.37	2.2 Rated Life (Years)
(3)	Photoelectric Control	Each		1	\$3.35	\$3.35	7.1 Rated Life (Years)
(4)	Bracket	Each		1	\$62.70	\$62.70	
(5)	Wire (Luminaire: 3-#10 @ 18')	Each		54	\$0.1368	<u>\$7.39</u>	
(6)	Sub-Total Material					\$289.81	Sum of Lines (1) to (5)
	<u>Material Overhead</u>						
(7)	Stores Handling		16.00%			\$46.37	Line (6) x Line (7), Column (b)
(8)	Imprest Stock (connectors/fuse/tape)		3.00%			<u>\$8.69</u>	Line (6) x Line (8), Column (b)
(9)	Sub-Total Material Overhead					\$55.06	Sum of Lines (7) to (8)
(10)	Total Material and Overhead					\$344.87	Line (6) + Line (9)
	<u>Crew Cost</u>						
(11)	Labor & Equipment					<u>\$212.27</u>	Page 3, (1)
(12)	Total Material and Labor					\$557.14	Line (10) + Line (12)
(13)	Plant Overhead		11.58%			<u>\$64.53</u>	Line (12) x Line (13), Column (b)
(14)	Total Plant Addition					\$621.67	Line (12) + Line (13)
(15)	Annual Carrying Charge on Plant		19.27%			\$119.80	Line (14) x Line (15), Column (b)

Source: Lines (1) to (5): NG Engineering Construction Standards

Line (7), Column (b): NG Accounting Services - Monthly Allocation Rates

Line (8), Column (b): Estimate for non-specified required materials

Line (13), Column (b): NG Accounting Services - Monthly Allocation Rates

Line (15), Column (b): Neco Annual Carrying Cost

## Narragansett Electric Company

**Floodlight - Area Light - Labor and Equipment Costs for Initial Installation Analysis****Initial Installation Cost**

Luminaire Type	SINGLE Area Floodlight
----------------	---------------------------

**Labor**

Crew Leader - Hourly Rate	\$39.41	
Lineworker - Hourly Rate	\$36.00	
Installation & Travel Time (Minutes)	60	
Total Direct Labor		\$75.41
ADD: Overhead Labor Cost	113.54%	<u>\$85.62</u>
Total Labor		\$161.03

**Equipment**

Truck-Aerial 45 ML OC	\$51.24	
Installation & Travel Time (Minutes)	60	
Total Equipment		<u>\$51.24</u>

**Miscellaneous**

Work Zone Protection/Police Detail	\$0.00	
Installation & Travel Time (Minutes)	60	
Total Equipment		<u>\$0.00</u>
Total Labor & Equipment Cost	(1)	<u>\$212.27</u>

**Replacement Cost**

Luminaire Type	Area Floodlight
----------------	-----------------

**Labor**

Touble Shooter - Hourly Rate	\$39.41	
Installation & Travel Time (Minutes)	45	
Total Direct Labor		\$29.56
ADD: Overhead Labor Cost	113.54%	<u>\$33.56</u>
Total Labor		\$63.12

**Equipment**

Work Zone Protection/Police Detail	\$0.00	
Truck-Aerial Light Duty	\$41.87	
Installation & Travel Time (Minutes)	45	
Total Equipment		<u>\$31.40</u>
Total Labor & Equipment Cost	(2)	<u>\$94.52</u>

Narragansett Electric Company  
Allocation of Operation and Maintenance Expenses

(1)	Total Distribution O & M Expense			\$50,896,792
(2)	Less: Streetlight Operation	585	\$483,557	
(3)	Less: Streetlight Maintenance	596	<u>\$1,564,051</u>	
(4)	Net Expense			\$48,849,184
(5)	Total kWh Sales			7,733,619,602
(6)	Distribution O&M Expense Per kWh			\$0.00631

- (1) FERC Form 1, Page 322, Line 156
- (2) FERC Form 1, Page 322, Line 139
- (3) FERC Form 1, Page 322, Line 152
- (4) Line (1) - Line (2) - Line (3)
- (5) Calendar year 2008 kWh sales
- (6) Line (4) ÷ Line (5), truncated after 5 decimal places

Narragansett Electric Company  
Allocation of Administrative and General Expenses

(1) Total Distribution O & M Expense		\$50,896,792
(2) Administrative & General Expense	\$58,385,832	
(3) Less Employee Benefits	<u>\$18,624,741</u>	
(4) A&G Expense excluding benefits		\$39,761,091
(5) Percentage Allocation For A & G Expense		78.12%

Calculation of Administrative & General Expense:

(6) Total Administrative & General Expenses	\$61,226,753
(7) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(8) Average Annual Percent of A & G Expense Charged to the IFA (5)	4.64%
(9) Total A & G Expense Allocable to the IFA	<u>\$2,840,921</u>
(10) A&G Expense Allocable to Distribution	<u>\$58,385,832</u>

Calculation of Benefits Expense:

(11) Total Employee Benefits	\$19,530,978
(12) Less Amount Allocable to the Integrated Facilities Agreement (IFA)	
(13) Average Annual Percent of A & G Expense Charged to the IFA	4.64%
(14) Total A & G Expense Allocable to the IFA	<u>\$906,237</u>
(15) A&G Expense Allocable to Distribution	<u>\$18,624,741</u>

- (1) FERC Form 1, Page 322, Line 156
- (2) From Line (10)
- (3) From Line (15)
- (4) Line (2) - Line (3)
- (5) Line (4) ÷ Line (1)
- (6) FERC Form 1, Page 323, Line 194
- (8) Workpaper NG-RLO 3
- (9) Line (6) \* Line (8)
- (10) Line (6) - Line (9)
- (11) FERC Form 1, Page 323, Line 187
- (13) Workpaper NG-RLO 3
- (14) Line (11) \* Line (13)
- (15) Line (11) - Line (14)



## Schedule NG-JEW-11

### Calculation of Proposed Lighting Service Charge

Narragansett Electric Company

**Service Charge - Labor and Equipment Costs for Initial Analysis**

**Service Charge Cost Development**

Description

Service Response to Customer Requested  
Task Other Than General O&M Functions

**Labor**

(1)	Trouble Shooter - Hourly Rate	\$39.41	Labor Rate per Negotiated Union Agreement
(2)	Installation & Travel Time (Minutes)	45	NG Engineering - Average Estimate (Travel/Set-up/Work/ Br
(3)	SubTotal Direct Labor	\$29.56	Line (1) * Line (2)/60

**Labor Overhead**

(4)	Overhead Labor Cost	113.54%	NG Accounting Services - Monthly Allocation Rates
(5)	SubTotal Labor Overhead	<u>\$33.56</u>	Line (3) * Line (4)
(6)	Total Labor	\$63.12	Sum Lines (3), (5)

**Equipment**

(7)	Truck-Aerial Light Duty	\$41.87	NG Fleet Category Cost Assessment
(8)	Installation & Travel Time (Minutes)	45	NG Engineering - Average Estimate (Travel/Set-up/Work/ Br
(9)	Total Equipment	\$31.40	Line (7) * Line (8)

**Material**

(10)	Red Cap PE, Connect/Disconnect, Fuse, Etc.	\$5.00	Average of NG Procurement - Purchase Agreement Pricing
(11)	SubTotal Material	<u>\$5.00</u>	Sum Line (5)

**Material Overhead**

(12)	Stores Handling	16.00%	\$0.80	NG Accounting Services - Monthly Allocation Rates
(13)	Imprest Stock (connectors/tape/etc.)	3.00%	<u>\$0.15</u>	Estimate for non-specified required materials
(14)	SubTotal Material Overhead		<u>\$0.95</u>	Sum Lines (12), (13)
(15)	Total Material		\$5.95	Sum Lines (11), (14)

**Miscellaneous**

(16)	Work Zone Protection/Police Detail	\$40.00	Hourly Rate for Police Detail Service per Hour
(17)	Installation & Travel Time (Minutes)	45	NG Engineering - Average Estimate (Travel/Set-up/Work/ Br
(18)	Total Miscellaneous	<u>\$30.00</u>	Line (16) * Line (17)
(19)	Total Labor, Equipment Material & Misc. Costs	\$130.47	Sum Lines (6), (9), (15), (18)





**PRE-FILED DIRECT TESTIMONY**  
**OF**  
**CARMEN FIELDS**

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**I. Introduction and Qualifications**

**Q. Please state your name and business address.**

A. My name is Carmen Fields. My business address is 40 Sylvan Road, Waltham, Massachusetts 02451.

**Q. By whom are you employed and in what capacity?**

A. I am employed by National Grid USA Service Company, Inc. (“National Grid”) and currently hold the position of Director-Community Relations/Economic Development NE.<sup>1</sup>

**Q. What are your responsibilities in that position?**

A. My responsibilities include building and nurturing relationships with Chambers of Commerce, municipal government officials, civic groups and others to enhance customer satisfaction and ensure that we have strong relationships with communities in which we serve. My duties also include emergency response during abnormal events, and coordinating training/information sessions on damage prevention and emergency response for municipal officials across gas and electric service territory. Internally I interact with operations, sales, engineering, government relations and other teams on major infrastructure projects to advise on community interests and concerns.

**Q. What is your working experience prior to your current position?**

---

<sup>1</sup> Throughout this testimony, I will refer to National Grid USA and its subsidiaries as “National Grid.” For purposes of clarity, where I intend to refer to The Narragansett Electric Company, I will refer to it as “the Company.”

1 A. Prior to my current appointment in August 2007, I was the Director of Media Relations &  
2 Corporate Giving NE for KeySpan Energy Delivery. In this capacity, I kept media  
3 informed of corporate activities and planned news events; provided media opportunities  
4 for the CEO, President and others; provided crisis communication support, and  
5 maintained a media profile for programs that benefit customers. The Corporate Giving  
6 tasks involved managing donations and sponsorships of events for non-profit  
7 organizations in the region.

8  
9 **Q. Please describe your educational background and business experience.**

10 A. I received a Bachelor of Arts degree in Journalism from Lincoln University in Jefferson  
11 City, Missouri and a Masters Degree in Broadcast Journalism from Boston University. In  
12 1985, I was the only American broadcast journalist to be awarded the coveted Nieman  
13 Fellowship for Journalists at Harvard University. Additionally, I was awarded an  
14 honorary Doctor of Humane Letters degree from Salem State University in 1992. I  
15 joined National Grid in August 2007 after the company acquired KeySpan Corporation.  
16 Prior to that time, I worked as a journalist for such organizations as The Boston Globe,  
17 WHDH-TV Boston, WGBH-TV (public television) and later as Press Secretary for  
18 Suffolk County (Boston) District Attorney Ralph C. Martin II.

19  
20 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**  
21 **(“Commission”) or any other regulatory commissions?**

22 A. No. I have not.

**II. Purpose of Testimony**

**Q. What is the purpose of your testimony?**

A. The purpose of my testimony is to explain the Company's proposed Economic Development Pilot Program and to describe the benefits that this new initiative would bring to the Company's customers and the Rhode Island economy. There are three programs being proposed: a "Targeted Infrastructure Improvement" program, an "Urban Revitalization" program, and a "Strategic Business Development" program, each of which will be explained in my testimony.

**Q. In total, how much funding is the Company proposing for economic development programs?**

A. The Company is proposing a total allowance of \$1.0 million per year that would be dedicated to the new economic development pilot initiatives. This amount is proposed to be allocated among the three programs, as I will explain in my testimony.

**Q. How is your testimony organized?**

A. My testimony is organized to provide the following: (1) a description of the desire for a proposed Economic Development Pilot Program; (2) a discussion of the Program benefits for the Company's customers, and (3) an overview of the proposed Economic Development Pilot Program, including the allocated funding levels and a proposed Commission oversight process.

**III     Need for Incremental Economic Development Funding**

**Q.     Why is the Company proposing a new Economic Development Program?**

A.     First and foremost, the Company has developed its proposal in response to current economic conditions. The last few months have clearly demonstrated that Rhode Island has suffered as much, if not more, than many other states during the recent financial crisis and current recession. In January 2009 the Rhode Island unemployment rate increased to 11.4 percent – its highest level in over 30 years, and far exceeding the national unemployment rate. Job losses totaled 19,000 during 2008, with the high-value professional and business services and manufacturing sectors being hit particularly hard. In the current climate, every possible economic development resource in Rhode Island should be identified, leveraged and brought to bear on this recession. National Grid feels strongly that the Company can become a significant contributor to economic development in Rhode Island, during these difficult times when it is needed most.

**Q.     How can the Company play an effective role in encouraging economic development in Rhode Island?**

A.     Unlike many other utilities in New England and elsewhere in the U.S., National Grid currently does not offer economic development programs in Rhode Island. However, the Company's experience in its upstate and metropolitan New York service territories indicates that there is an unexplored opportunity here in Rhode Island. Utilities are widely regarded as effective economic development partners. We are directly connected to the communities we serve, both physically and economically. We build and maintain close relationships with key commercial and industrial customers and strive to go beyond

1 basic supply chain relationships and into the position of “trusted advisor” on energy and  
2 other business issues. Our knowledge and understanding of the infrastructure -- both  
3 energy and non-energy – makes National Grid a key ally in regional economic  
4 development efforts that increasingly focus on the development and marketing of  
5 “Shovel Ready” sites and buildings. Site location consultants and corporate real estate  
6 executives often contact utilities directly, in recognition of our knowledge base and the  
7 confidential way in which we conduct business with customers and prospective  
8 customers.

9  
10 Lastly, economic development and energy are becoming increasingly intertwined.  
11 Energy costs and reliability continue to be important drivers of business decisions, and  
12 the rapid emergence of renewable energy technologies is creating opportunities for the  
13 utility to participate in the entire spectrum of alternative energy development, from  
14 research and development to deployment of the end-use technologies. In that regard,  
15 Rhode Island is fortunate to have a highly effective, integrated network of state, regional  
16 and local economic-development entities. We are confident that National Grid can  
17 become a valued and effective part of that network.

18  
19 **Q. Would you please provide an overview of the economic development programs**  
20 **currently administered by the Company?**

21 A. Yes. Since our merger with Niagara Mohawk Power Company in 2002, National Grid  
22 has maintained a set of robust and effective economic development programs in Upstate  
23 New York, and we are viewed as a valued partner within the state, regional and local

1 economic development communities. We currently administer 15 economic development  
2 grant programs in Upstate, most of which offer assistance within the same general  
3 framework being proposed by the Company in Rhode Island. In addition, National Grid  
4 also provides economic development assistance in the New York City metro area, with an  
5 emphasis on energy efficient urban redevelopment. The Company's proposal to create an  
6 economic development program in Rhode Island will incorporate best practices and  
7 lessons learned through our economic development experience in all areas of its U.S.  
8 operations. National Grid also offers energy discount programs in both Upstate and  
9 Metro New York regions, but the Company is not seeking to include any energy price  
10 incentive programs in its proposal in this case.

11  
12 **Q. Would you please identify what the Company's specific objectives would be in**  
13 **initiating the Economic Development Pilot Program?**

14 A. The Company's specific objectives in initiating an Economic Development Pilot Program  
15 are, quite simply, to help improve the economy in its service territory, during economic  
16 times when it is needed perhaps more than ever before. The overarching principle that  
17 applies is the Company's keen desire to help create jobs, attract new business and assist  
18 in retaining and helping existing businesses expand. To the extent possible sustainable  
19 economic development will be a guiding principle through the energy efficient  
20 redevelopment of existing structures and the utilization of existing electric delivery  
21 infrastructures.



1 **Q. How would the Company's proposed economic development programs benefit**  
2 **National Grid customers and the regional economy?**

3 A. Ultimately, economic development success is best measured in terms of new capital  
4 investment and jobs created or retained in the regional economy. The Company's  
5 proposed economic development initiatives would produce results in both of these key  
6 areas. In addition, the programs described above will generate system benefits in the  
7 form of a stable customer base and more efficient utilization of existing energy delivery  
8 assets -- both of which will help mitigate potential delivery price increases, and  
9 encourage economic growth in the long run. Lastly, the Company's proposed economic  
10 development initiatives would create new opportunities to utilize National Grid's  
11 industry-leading expertise in energy conservation as an economic development tool.

12  
13 As part of the 180-day collaborative program development process, the Company is  
14 proposing, the Company would work with other interested parties to identify appropriate  
15 evaluation criteria and a process for conducting annual benchmarks to gauge success.

16  
17 **Q. Is providing economic development assistance at odds with National Grid's**  
18 **commitment to help customers reduce their consumption of energy?**

19 A. No, not at all. Economic development and energy conservation are complementary, not  
20 contradictory, services. National Grid has a rich history of providing energy efficiency  
21 assistance to customers in Rhode Island, which in and of itself is a form of economic  
22 development. Implementing energy conservation measures helps businesses lower their  
23 operating costs, become more profitable, and improve the likelihood that they will remain

1 and grow in Rhode Island. Similarly, the goal of the Company's proposed economic  
2 development programs is to generate sustainable economic growth in our Rhode Island  
3 service territory, regardless of the impact on short-term energy delivery sales. The  
4 Company has adopted a comprehensive "energy solutions" approach to managing  
5 customer and community relationships and we are confident that our proposed economic  
6 development programs will become a key component of that approach.  
7

8 **IV. Overview of the Company's Proposed Economic Development Pilot Program**

9 **Q. Please describe the Company's proposed Economic Development Pilot Program.**

10 A. National Grid is proposing to create a small roster of programs aimed at promoting  
11 economic development in Rhode Island through targeted infrastructure improvement,  
12 urban revitalization, and strategic business development efforts.  
13

14 **Q. How would specific programs be developed and implemented?**

15 A. The Company proposes to undertake a collaborative 180-day program development effort  
16 with state, regional and local economic development entities, businesses and other  
17 interested parties. Through that process, the Company will identify specific initiatives  
18 that will best complement existing economic development programs and address the  
19 unique circumstances of our current economic environment. Where appropriate, the  
20 program development effort would also incorporate best practices and "lessons learned"  
21 from National Grid's economic development programs in New York State. Those efforts  
22 have helped generate over \$700 million in new capital investment and have played a role  
23 in the creation or retention of over 10,000 jobs since 2003. Schedule NG-CF-1 contains

1 the Company's most recent evaluation of its Upstate New York economic development  
2 programs, as part of an "Annual Report" filing that was made on August 29, 2008. This  
3 filing was approved by the New York State Public Service Commission on January 23,  
4 2009.

5  
6 **Q. Who would be eligible to receive funds through the Company's proposed pilot**  
7 **initiatives?**

8 A. The Company plans to develop detailed eligibility requirements for each program as part  
9 of the 180-day program development process. Generally speaking, funding applicants  
10 will be either (1) individual commercial/industrial customers with infrastructure issues  
11 that are barriers to the growth or retention of their business in the Company's service  
12 territory; or (2) public or quasi-public, not-for-profit economic development  
13 organizations involved in key development or revitalization projects in the National Grid  
14 service territory. It is very difficult to forecast the number of projects that would be  
15 completed each year, because the program eligibility requirements and other details will  
16 not be determined until the end of the proposed collaborative process. However, based  
17 on our experience developing and delivering similar economic programs in Upstate New  
18 York, the Company estimates that approximately 20 economic development projects  
19 could be completed each year. That estimated total is comprised of ten "Urban  
20 Revitalization" projects, five "Targeted Infrastructure" projects and five "Strategic  
21 Business Development" projects.

1 **Q. Are there any other general funding requirements that will characterize the**  
2 **proposed pilot initiatives?**

3 A. Yes. First, the programs will all seek to leverage other public and/or private funding  
4 wherever possible, with those matching funds generally being at least 50 percent of total  
5 project costs. Second, funds will only be released on a reimbursable basis, after projects  
6 are completed and all project costs fully documented by the customer/developer.  
7 Funding will under no circumstances be “advanced” prior to project initiation.  
8

9 **Q. What would be the objectives of a “Targeted Infrastructure Improvement”**  
10 **program?**

11 A. Infrastructure improvement programs will be designed to advance the development of  
12 key industrial sites and buildings across the Company’s service territory. These efforts  
13 will target some of the state’s premium development sites, and will focus on making the  
14 sites more “shovel ready” -- providing the energy infrastructure necessary to successfully  
15 market these sites to prospective businesses for “fast track” development. Funds may  
16 also be available to help offset customer costs associated with upgrading their energy  
17 delivery infrastructure, in order to accommodate a major business expansion or attraction  
18 project in the Company’s service territory. To the extent possible, the Company’s  
19 infrastructure improvement initiatives would promote sustainable economic development  
20 through the redevelopment of existing “brownfield” sites and vacant industrial buildings.  
21

22 **Q. What would be the minimum requirements for a qualifying Targeted Infrastructure**  
23 **Improvement Program?**

1 A. To qualify for a Targeted Infrastructure Improvement grant, the applicant would need to  
2 demonstrate that existing energy delivery infrastructure (or lack thereof) is a barrier to  
3 economic growth –whether the project involves “shovel-ready” infrastructure  
4 development or a service upgrade needed by an industrial customer undergoing a major  
5 expansion. Eligible projects will specifically target key economic “driver” industries  
6 such as manufacturing, life sciences, research and development, distribution centers and  
7 the like. Site development projects will require either the endorsement of a public  
8 development agency or ownership by a public or not-for profit economic development  
9 agency responsible for development of the site. Eligibility for infrastructure funds will be  
10 restricted to projects that have the greatest potential to create new jobs and new  
11 investment in Rhode Island.

12  
13 **Q. How much funding does the Company propose allocating to the Targeted**  
14 **Infrastructure Improvement programs?**

15 A. The Company proposes to allocate \$400,000 per year to the Targeted Infrastructure  
16 Improvement program.

17  
18 **Q. What types of “Urban Revitalization” assistance might be provided?**

19 A. The intent of these programs will be to promote “smart growth” investment in central  
20 business districts and aging commercial corridors. Funds would be provided to  
21 encourage the (re) development of vacant and underutilized structures in urban areas that  
22 have both strong development potential and idle utility infrastructure. These programs

1 would also be designed to encourage energy efficient building/system designs and LEED  
2 certified projects wherever possible and appropriate.  
3

4 **Q. What would be the minimum requirements for a qualifying Urban Revitalization**  
5 **Program?**

6 A. Eligibility for Urban Revitalization programs would be limited to either a) a municipality  
7 and/or its authorized development corporation or b) a 501 (c) 3 or 501 (c) 6 corporation,  
8 working in tandem with its local development corporation. These programs would focus  
9 on the redevelopment of vacant buildings in urban communities with both idle energy  
10 delivery infrastructure and strong development potential. Non profit organizations tied to  
11 municipal planning and development, work toward public, not private benefit and  
12 generally have vast experience with developing both commercial and residential  
13 properties.  
14

15 **Q. How much funding does the Company propose allocating to the Urban**  
16 **Revitalization programs?**

17 A. The Company proposes to allocate \$400,000 per year to Urban Revitalization programs.  
18

19 **Q. Lastly, would you please describe what is meant by “Strategic Business**  
20 **Development” initiatives?**

21 A. Yes. Economic development is increasingly driven by technology development. Recent  
22 business development activities in Rhode Island have focused on the life sciences and  
23 renewable energy industries, both of which hold tremendous potential for future

1 economic growth in the region. National Grid can become a key partner in the Rhode  
2 Island's efforts to become a national leader in these sectors, utilizing our unique regional  
3 perspective and our own intent focus on emerging energy technologies. The Company's  
4 efforts in this area could include providing support for "green" business recruitment  
5 initiatives and fostering technology transfer and commercialization efforts in the  
6 renewable energy and life science industries.

7  
8 **Q. What would be the minimum requirements for qualifying Strategic Business**  
9 **Development initiatives?**

10 A. Qualifying Strategic Business Development projects would likely promote a specific  
11 regional economic development asset, enhance the competitiveness of Rhode Island, and  
12 compliment other ongoing regional economic development efforts. Eligible applicants  
13 would be limited to state, regional or local economic development entities in the  
14 Company's electric service area. Leveraged funds would be required for all projects on  
15 at least a 1:1 basis.

16  
17 **Q. How much funding does the Company propose allocating to Strategic Business**  
18 **Development initiatives?**

19 A. The Company proposes to allocate \$200,000 per year to Strategic Business Development  
20 initiatives.

21  
22 **Q. Does National Grid plan on spending economic development funds on items other**  
23 **than the three program categories outlined above?**

1 A. No, not at this time. However the Company recognizes that other needs may surface as a  
2 result of the collaborative process with economic development stakeholders. If there is a  
3 demonstrated need for additional programs, the Company is willing to consider them.  
4

5 **Q. Would the proposed level of resources be sufficient to produce significant economic**  
6 **development results?**

7 A. Based on discussions with state and local developers, as well as National Grid's own  
8 experience in developing and implementing economic development programs in other  
9 areas, this level of funding represents a modest but appropriate initial investment in  
10 economic development.  
11

12 **Q. What is the Company proposing in terms of an oversight process by the**  
13 **Commission?**

14 A. The Company proposes an oversight process that includes both a pre-approval of each  
15 year's Economic Development Pilot programs and an evaluation of the previous year's  
16 Pilot activities. Specifically, the Company will file a program proposal by September 1  
17 of each year, which will contain detailed program descriptions, eligibility and funding  
18 requirements that would be effective January 1 of the following calendar year. On June 1  
19 of each year, the Company would submit an evaluation of the activities and results of the  
20 prior year's economic development programs. Assuming the annual reporting  
21 demonstrates satisfaction of stakeholders and regulators that the programs do not require  
22 substantial modification, the pilot status at some mutually agreeable time, would end  
23 .



1    **V.    Conclusion**

2    Q.    Does this conclude your direct testimony?

3    A.    Yes.



## **Schedules**

Schedule NG-CF-1    Upstate New York Economic Development Annual Report



## Schedule NG-CF-1

### Upstate New York Economic Development Annual Report



# **ECONOMIC DEVELOPMENT PLAN**

## **ANNUAL REPORT**

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**AUGUST 29, 2008**

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# I. Review of Grant Activity and Results

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## 1. INTRODUCTION

This section of the Annual Report details National Grid's calendar year 2007 Economic Development Plan (EDP) activities, and summarizes the results and economic impacts of the EDP since its inception in 2003.

Included is a detailed review of grant activity in terms of applications and funding, and an analysis of program impacts based on the results of a survey of grant recipients and other sources.

For reporting purposes the programs are divided into six subject areas: Capital Investment, Marketing, Energy Efficiency & Productivity, Site Development, Revitalization & Urban Development and Pricing Programs.

## 2. 2007 SUMMARY AND HIGHLIGHTS

Table 1 summarizes 2007 approved applications and expenditures by program.

The **Capital Investment Incentive** program, which provides funding to offset the cost of energy infrastructure improvements for expanding industrial customers, continues to be a very active and high-impact program. As detailed in Appendix A, this program helped National Grid customers invest a total of \$264 million dollars in 2007, in projects that created a total of 485 new jobs. Among the projects completed and reimbursed in 2007 were:

A Rotterdam company built a 220,000 sq ft climate controlled transfer facility to serve as a major hub for shipping produce from the Western US to points along the East Coast. The project created 129 jobs and over \$25 million in capital investment. A growing Mohawk Valley manufacturer considered expanded its operations in Mexico, but ultimately decided to grow at its current location in Rome. The Capital Investment Incentive was used to fund part of the electrical infrastructure in the company's new \$4 million dollar, 27,000 square foot building.

A Western NY manufacturer upgraded its facility and electrical infrastructure in order to bring a previously outsourced process in-house. The \$9.6 million project helped create 13 new jobs and retain 350 jobs.

A total of over \$800,000 in grants was released through the **25-cycle Investment** Program in its final year of operation. Over the past 5 years, this program has helped 27 customers convert from 25 cycle to 60 cycle service. Those businesses spent a combined \$6.5 million dollars in their conversion projects, helping to retain a total of 1,628 jobs in the City of Buffalo. The Company's 25-cycle system is now completely retired.



**Table 1. 2007 GRANT ACTIVITY – PROGRAM DETAIL**

<u>Year 2007</u>	<u>Applications Approved</u>	<u>Dollars Approved</u>	<u>Projects Completed</u>	<u>Dollars Disbursed</u>
<b>Capital Investment Programs</b>				
Capital Investment Incentive	16	\$2,585,000	12	\$1,779,292
3 Phase Power Incentive	1	\$30,000	2	\$92,139
25-Cycle Investment Initiative	0	\$0	6	\$821,482
<b>Subtotal</b>	<b>17</b>	<b>\$2,615,000</b>	<b>20</b>	<b>\$2,692,914</b>
<b>Marketing Programs</b>				
Cooperative Business Recruitment	5	\$50,000	4	\$40,000
Strategic Economic Development Outreach	13	\$1,795,631	9	\$1,073,567
<b>Subtotal</b>	<b>18</b>	<b>\$1,845,631</b>	<b>13</b>	<b>\$1,113,567</b>
<b>Energy Efficiency &amp; Productivity Programs</b>				
Energy Efficiency in Empire Zones	13	\$223,000	12	\$228,520
Dairy Industry Productivity	2	\$8,450	3	\$12,493
<b>Subtotal</b>	<b>15</b>	<b>\$231,450</b>	<b>15</b>	<b>\$241,013</b>
<b>Site Development Programs</b>				
Brownfield Redevelopment Assistance	4	\$573,000	3	\$528,300
Building Ready Upstate	4	\$120,000	4	\$120,000
Industrial Building Redevelopment	0	\$0	1	\$105,000
Shovelready Incentive	5	\$467,000	3	\$288,416
<b>Subtotal</b>	<b>13</b>	<b>\$1,160,000</b>	<b>11</b>	<b>\$1,041,716</b>
<b>Revitalization &amp; Urban Dev Programs</b>				
Urban Center/Commercial District	1	\$250,000	0	\$0
Mainstreet Revitalization	10	\$386,000	12	\$505,900
<b>Subtotal</b>	<b>11</b>	<b>\$636,000</b>	<b>12</b>	<b>\$505,900</b>
<b>Pricing Programs</b>				
Targeted Financial Assistance	1	\$100,000	1	\$100,000
<b>Subtotal</b>	<b>1</b>	<b>\$100,000</b>	<b>1</b>	<b>\$100,000</b>
<b>Communications</b>	n/a	n/a	n/a	<b>\$219,168</b>
<b>GRAND TOTAL</b>	<b>75</b>	<b>\$6,588,081</b>	<b>72</b>	<b>\$5,914,278</b>

*Note: These numbers reflect applications approved, dollars disbursed, and projects completed during the calendar year, regardless of when the applications were received. Some of the approvals are associated with applications received in prior years.*

The **Strategic Economic Development Outreach** program also was very active in terms of applications received, applications approved, and completed projects. Using this program, National Grid helped fund a feasibility study related to the potential (at that time) re-starting of the Newton Falls paper mill. The study played a key role in the eventual re-opening of the mill in 2007 – a project that has created over 100 manufacturing jobs in a rural community that was still suffering from the plant's closure 8 years before.

The Company's **Energy Efficiency in the Empire Zones program** continues to fill a small but important energy efficiency gap for National Grid customers. Because Empire Zone businesses do not pay the Systems Benefit Charge, most NYSEDA programs are not readily accessible to them. Moreover, much of our Empire Zone acreage is dominated by older structures that are prime targets for energy efficiency assistance. Finally, Grid's Empire Zone customers receive very deep discounts on energy delivery service, and therefore have little incentive to pursue conservation measures during their 10-year discount term. Projects funded through this program typically involve se installation of high-efficiency HVAC, lighting fixtures, lighting controls, energy management systems, and building envelope improvements. Projects completed in 2007 will provide electric conservation benefits totaling over 500 kW and 1.6 million kWh annually.

National Grid's other energy efficiency offering, **the Dairy Industry Productivity** program, did not register much activity during 2007 due primarily to a lack of available matching funding from other sources. However, as a result of discussions with NYSEDA, NYS Agriculture & Markets, Empire State Development and DPS Staff, the Company has determined that this program should be continued -- and in fact broadened -- due to increasing interest in energy efficiency and renewable generation in the Upstate agricultural sector. The revised program description is on Page 31 of the 2009 ED Plan Proposal.

A total of over \$1 million was released to customers through National Grid's infrastructure assistance programs. The **Brownfield Redevelopment** program helps fund utility-related infrastructure improvements, demolition and other costs necessary to advance the (re)development of brownfield sites and abandoned buildings in the Grid territory. Using this program Grid has played a key role in the ongoing redevelopment of the Spaulding Fibre complex (Erie County), and the former Rome Cable site.

The **Shovelready Infrastructure Incentive** provides grants for energy infrastructure improvements at designated "Shovel Ready" sites in the National Grid territory, making these premium sites even more attractive to prospective customers with fast-tracked projects. National Grid has used this program to help fund key infrastructure improvements at over a dozen Upstate industrial parks. Projects funded in 2007 included the Riverview Commerce Park in Tonawanda, which received a grant to help fund the cost of bringing electric service to the site. One 56,000 sq ft building is already in place, housing 2 new companies and over 50 employees. At full build-out, the 106-acres business park is expected to employ over 1,000 people.

The **Mainstreet Revitalization** program continues to generate strong interest and solid results. The program targets properties – often with local historic significance – where there is underutilized energy infrastructure, and where the community demonstrates a commitment to redeveloping its central business district. The projects completed during provided over \$500,000 in grants across 9 Upstate counties. These included the Village of Phoenix (Oswego County), which has developed a strategic plan to redevelop its waterfront business/commercial – more than 50 percent of which is currently vacant or underutilized. Recently the Main Street program also helped Barton Mines construct its new headquarters facility in Glens Falls, converting a largely vacant historic structure into the first LEED “gold” certified building in Warren County.

### 3. CUMULATIVE PROGRAM ACTIVITY

Tables 2 and 3 provide a summary of Economic Development Plan activity from 2003-2007. A total of 514 applications have been received since the Plan’s inception. 438 of those were approved, representing over \$24.5 million in funding commitments. To date, \$16.6 million has been disbursed, leaving \$7.9 million in committed funds for unfinished projects.

**TABLE 2. GRANT APPLICATION HISTORY**

	<b><u>Applications Received</u></b>	<b><u>Dollars Approved</u></b>	<b><u>Dollars Disbursed</u></b>
2003	79	\$1,165,197	\$429,227
2004	112	\$4,013,979	\$1,528,702
2005	146	\$6,579,316	\$4,604,380
2006	85	\$6,237,435	\$4,154,963
2007	92	\$6,588,081	\$5,914,279
<b>Total</b>	<b>514</b>	<b>\$24,584,008</b>	<b>\$16,631,551</b>

**Table 3: CUMULATIVE GRANT ACTIVITY – PROGRAM DETAIL**

<b><u>Total – 2003-2007</u></b>	<b><u>Applications Approved</u></b>	<b><u>Dollars Approved</u></b>	<b><u>Projects Completed</u></b>	<b><u>Dollars Disbursed</u></b>
<b>Capital Investment Programs</b>				
Capital Investment Incentive	44	\$6,400,960	25	\$3,810,710
3 Phase Power Incentive	12	\$389,760	11	\$323,702
25-Cycle Investment Initiative	27	\$2,420,102	27	\$2,272,507
<b>Subtotal</b>	<b>83</b>	<b>\$9,210,822</b>	<b>63</b>	<b>\$6,406,919</b>
<b>Marketing Programs</b>				
Cooperative Business Recruitment	56	\$432,846	34	\$308,176
Strategic Economic Development Outreach	57	\$6,050,066	51	\$3,970,530
<b>Subtotal</b>	<b>113</b>	<b>\$6,482,912</b>	<b>85</b>	<b>\$4,278,706</b>
<b>Energy Efficiency &amp; Productivity Programs</b>				
Energy Efficiency in Empire Zones	62	\$1,043,328	44	\$692,606
Dairy Industry Productivity	72	\$345,735	55	\$236,937
<b>Subtotal</b>	<b>134</b>	<b>\$1,389,063</b>	<b>99</b>	<b>\$929,543</b>
<b>Site Development Programs</b>				
Brownfield Redevelopment Assistance	19	\$2,216,000	7	\$728,300
Building Ready Upstate	10	\$240,000	4	\$120,000
Industrial Building Redevelopment	8	\$1,009,410	5	\$618,771
Shovelready Incentive	13	\$1,167,000	10	\$758,772
<b>Subtotal</b>	<b>50</b>	<b>\$4,632,410</b>	<b>26</b>	<b>\$2,225,843</b>
<b>Revitalization &amp; Urban Dev Programs</b>				
Urban Center/Commercial District	1	\$250,000	0	\$0
Mainstreet Revitalization	54	\$1,918,800	30	\$1,061,199
<b>Subtotal</b>	<b>55</b>	<b>\$2,168,800</b>	<b>30</b>	<b>\$1,061,199</b>
<b>Pricing Programs</b>				
Targeted Financial Assistance	3	\$700,000	3	\$700,000
<b>Subtotal</b>	<b>3</b>	<b>\$700,000</b>	<b>3</b>	<b>\$700,000</b>
<b>Communications</b>	n/a	n/a	n/a	<b>\$1,029,341</b>
<b>TOTAL – ALL PROGRAMS (2003-2007)</b>	<b>438</b>	<b>\$24,584,007</b>	<b>306</b>	<b>\$16,631,551</b>

*Note: These numbers reflect applications approved, dollars disbursed, and projects completed during the calendar year, regardless of when the applications were received. Some of the approvals are associated with applications received in prior years.*

Table 4 provides the geographic distribution of funding within National Grid's Upstate New York service territory. Funds have been widely distributed, generally reflecting the Company's customer and revenue base in each region.

**TABLE 4. FUNDING DISBURSED BY NATIONAL GRID DIVISION/REGION**

<u>Divison/Region</u>	<u>Grant \$ DISBURSED</u>					<u>Total</u>
	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	
Capital/Northeast	\$198,095	\$534,876	\$1,431,628	\$1,038,616	\$1,119,872	\$4,323,087
Central	\$100,000	\$298,008	\$793,988	\$408,559	\$1,028,607	\$2,629,162
Mohawk Valley/Northern	\$0	\$64,900	\$370,000	\$541,378	\$740,434	\$1,716,711
Western/Frontier	\$38,904	\$462,699	\$1,737,249	\$1,888,200	\$2,806,199	\$6,933,250
<b>Total</b>	<b>\$336,999</b>	<b>\$1,360,483</b>	<b>\$4,332,866</b>	<b>\$3,876,753</b>	<b>\$5,695,110</b>	<b>\$15,602,210</b>

*Note: Communications expenditures since 2003 have totaled \$1,029,341 – this amount is not included in the regional totals*

#### 4. SURVEY RESULTS AND IMPACT ANALYSIS

In order to help evaluate the effectiveness of the Economic Development Plan programs and the impact of completed projects, an on-line survey was sent to all companies and organizations that completed a project and received a grant disbursement in 2007. This represents a change from the process used in prior years, when surveys were sent to all approved grant applicants, regardless of project status. This administrative change is expected to improve the survey response rate and also the quality of the resulting data - - which previously included a mix of actual and projected impact information. Cumulative data has also been adjusted to reflect the new methodology.

With the exception of four Dairy Industry Productivity grant recipients who do not have an active email address, the surveys were administered electronically. The overall response rate in 2007 was strong at 81% (Table 5).

**TABLE 5. SURVEY RESPONSE BY PROGRAM CATEGORY**

<u>Program Category</u>	<u>2007 Grants</u>	<u>Survey Responses</u>	<u>Response Rate</u>
Capital Investment	20	14	70%
Marketing	13	13	100%
Energy Efficiency & Productivity	15	11	73%
Site Development	11	10	91%
Revitalization & Urban Development	12	10	83%
Pricing	1	0	0%
<b>TOTAL</b>	<b>72</b>	<b>58</b>	<b>81%</b>

## **Impact of National Grid Assistance**

Grant recipients were asked to provide feedback on the role National Grid funding played in the completion and timing of their project. As presented in Table 6, the majority of respondents indicated that the grant did have an impact by incentivizing the project and/or leading them to complete the project sooner than they otherwise would have.

**TABLE 6. GRANT IMPACTS**

	<u>Capital Investment</u>	<u>Energy Efficiency &amp; Productivity</u>	<u>Site Development</u>	<u>Revitalization &amp; Urban Dev</u>	<u>Marketing Programs</u>
<b><u>Did National Grid funding lead you to :</u></b>					
Take actions you would not have otherwise taken	64%	82%	90%	70%	100%
Take actions more quickly	79%	82%	90%	70%	100%

## **Leveraged Funds**

Respondents were asked to report on the mix of funding they received from sources other than National Grid, including local, state and federal programs.

As indicated in Table 7, grant recipients in the Site Development and Revitalization/Urban Development programs report the broadest range of funding sources, with local and state government programs tapped most frequently. Local funding was utilized most often for Capital Investment grant recipients, while Marketing projects typically obtained matching funds from state programs. Energy Efficiency/Productivity program participants were least likely to obtain funding from other sources, which is an expected outcome – most of these are smaller projects that do not involve a larger business expansion, and the customer's own investment is the only required source of program matching funds.

The \$5.9 million dollars in grant funds released by National Grid during 2007 represents approximately 2 percent of the total costs (\$300 million) of projects funded during the year, including all public and private investment.

**TABLE 7. SOURCES OF LEVERAGED FUNDS**

<u>Program Category</u>	<u>Local Gov't</u>	<u>State Gov't</u>	<u>Fed Gov't</u>
Capital Investment	36%	21%	-
Marketing	23%	54%	15%
Energy Efficiency & Productivity	-	18%	-
Site Development	60%	50%	10%
Revitalization & Urban Dev	60%	60%	10%

## **Customer Operational Impacts**

Grant recipients in the capital investment, revitalization/urban development and energy efficiency/productivity programs were asked about the project impacts in terms of cost savings, increased productivity, increased sales, and improved power quality and/or reliability.

As presented in Table 8, energy efficiency savings and productivity gains are the most commonly recognized benefits, even in the programs that are not focused on the installation of energy efficiency measures. Power quality and reliability improvements also were frequently cited, particularly among revitalization and urban redevelopment grant recipients. Half of the capital investment grant awardees reported an increase in annual sales as a result of their project, which is to be expected due to the business expansion orientation of these programs.

**TABLE 8. OPERATIONAL BENEFITS**

	<u>Capital Investment</u>	<u>Revitalization &amp; Urban Dev</u>	<u>Energy Efficiency &amp; Productivity</u>
<b><u>Project Benefits:</u></b>			
<i>cut costs thru energy efficiency</i>	71%	80%	91%
<i>increase productivity</i>	71%	60%	64%
<i>improve power quality or reliability</i>	64%	70%	82%
<i>increase in annual sales</i>	50%	40%	36%

## **Regional Economic Impacts**

The survey also asked grantees to report on the impact of their projects in terms of new capital investment, new and retained jobs, and other measures.

**Capital investment** is perhaps the single most important metric for the National Grid Economic Development Plan. Not only is it directly tied to regional economic output, but companies who decide to invest here in many cases have chosen their Upstate New York facility over other competing corporate locations. The flow of capital among facilities is a good leading indicator of their relative long-term viability, particularly for manufacturing companies with facilities in multiple states.

Many of the Company's EDP programs include eligibility requirements and funding guidelines that are tied to investment in energy infrastructure, new building construction and/or purchase of machinery and equipment. The Company tracks investment impacts through the annual survey process, and the survey information is supplemented with data obtained through the project verification process that occurs before the release of grant funds. This process involves a detailed review of paid invoices, receipts and other documentation, which is summarized and compared to information provided on the approved application. New capital investment is not an eligibility requirement for the EDP marketing programs, and investment impacts are not tracked for those projects, as discussed below.

Tables 9 & 10 summarize the capital investment impacts of EDP funding for 2007, and the cumulative investment impacts since the inception of the programs. The total investment associated with 2007 projects was over \$325 million, with the majority resulting from projects in the capital investment programs. Since 2003, a total of over \$700 million has been invested in projects funded through the EDP.

**TABLE 9. CAPITAL INVESTMENT IMPACTS – 2007**

<b>2007</b>	
<b><u>Program Category</u></b>	<b><u>Investment</u></b>
Capital Investment Programs	\$265,862,800
Energy Efficiency & Productivity Programs	\$2,275,329
Site Development Programs	\$36,007,400
Revitalization & Urban Development Programs	\$21,665,276
<b>TOTAL</b>	<b>\$325,810,805</b>

**Table 10. CUMULATIVE CAPITAL INVESTMENT IMPACTS – 2003-2007**

<b>2003-2007</b>	
<b><u>Program Category</u></b>	<b><u>Investment</u></b>
Capital Investment Programs	\$381,284,602
Energy Efficiency & Productivity Programs	\$24,092,865
Site Development Programs	\$260,490,400
Revitalization & Urban Development Programs	\$39,892,676
<b>TOTAL</b>	<b>\$705,760,543</b>

**Employment impacts** are also an important long-term objective of National Grid's economic development activities. The creation and retention of jobs is one of the most visible indicators of a healthy economy and a strong community, and it is also the most important measure from a political perspective. However, job creation is not necessarily a priority for expanding businesses, many of whom make investments in new technology, machinery and equipment in order to REDUCE the labor content of their products or services, and to increase productivity.

Unlike many federal and state economic development programs, job creation/retention performance generally is not an eligibility requirement for National Grid EDP programs. The Company collects "projected" employment data from applicants when they apply for funding, and job creation potential is among the project evaluation criteria for several programs. "Actual" employment impacts are



gathered through the annual survey of grant recipients, and this information is supplemented by press releases (from the company and/or New York State), commercially available databases, and other secondary sources. Job creation and retention results are not tracked for EDP marketing programs, as discussed below.

Tables 11 and 12 summarize the job creation and retention impacts of EDP funding for 2007, and cumulative employment impacts since program inception. The total job creation and retention benefit associated with 2007 projects was 3,406, with most of those impacts generated through the capital investment programs. Since 2003 over 10,000 jobs have been created or retained in projects funded through the National Grid EDP.

**TABLE 11. JOB CREATION AND RETENTION IMPACTS - 2007**

<u>Program Category</u>	<u>2007 JOBS</u>
Capital Investment Programs	2,721
Energy Efficiency & Productivity Programs	373
Site Development Programs	147
Revitalization & Urban Development Programs	165
<b>TOTAL</b>	<b>3,406</b>

**Table 12. CUMULATIVE JOB CREATION AND RETENTION IMPACTS - 2003-2007**

<u>Program Category</u>	<u>2003-2007 JOBS</u>
Capital Investment Programs	8,217
Energy Efficiency & Productivity Programs	588
Site Development Programs	1,018
Revitalization & Urban Development Programs	375
<b>TOTAL</b>	<b>10,198</b>

## **Marketing Results**

Table 13 summarizes the types of marketing activities funded by the EDP in 2007. The creation and distribution of printed materials was the most commonly funded initiative, followed by website projects and print advertising.

**TABLE 13. 2007 EDP FUNDED MARKETING ACTIVITIES**

<b><u>Activity</u></b>	<b><u>Completed Projects</u></b>
Create & Distribute Print Materials	14
Website Improvements/Redesign	7
Create/Distribute CD/DVD	1
Print Advertising	5
Sales Calls	3
Direct Mail	4
Lead Identification and Qualification	3
Internet Advertising	4
TV & Radio Advertising	3
Telemarketing	2
Marketing Through Realtor	1

Applicants for marketing assistance are asked to formulate goals for each marketing initiative, including capital investment and new jobs, and potential economic impact is among the criteria used to evaluate marketing applications. However, while it is understood that successful strategic marketing will ultimately lead to business attraction and expansion projects, the long-term nature of economic development marketing initiatives makes it unreasonable to expect new jobs and capital investment in the near term.

The results of the EDP marketing programs are more reasonably measured in terms of marketing progress, i.e. responses, leads, prospect visits and project commitments. The Company collects this information through the annual survey. Table 14 summarizes the marketing results reported by EDP grant recipients for 2007 projects.

**TABLE 14. MARKETING PROGRESS – 2007**

<b>Marketing Results</b>	
Marketing Responses	2,695
Leads	1,062
Prospect Visits/Meetings	462
Project Commitments	15

The annual survey also asks marketing & site development grant recipients for information on their target markets. As presented in Table 15, the majority of 2007 marketing activities were focused on attracting new businesses from outside New York State. 35% of respondents reported that they marketed to an audience within the state, although more than half of those reported that they also targeted markets outside of New York.

**TABLE 15. PRIMARY TARGET MARKETS**

<b><u>Geographic Region</u></b>	<b><u>Primary Target</u></b>
<b>Total Marketing Outside New York State</b>	<b>65%</b>
Out of state, within US	39%
Canada	17%
Other International	9%
<b>Total Marketing within NY State</b>	<b>35%</b>
Local/Regional/Upstate NY	26%
Elsewhere in NY state	9%

#### **Awardee Experience with National Grid**

The survey asked grant recipients how their organization first learned about National Grid's EDP programs. As in the past, the results (Table 16) indicate that the majority of grant recipients first hear about the programs through outreach by National Grid employees.

**TABLE 16. HOW DID YOU FIRST FIND OUT ABOUT THIS GRANT PROGRAM?**

<b><u>Information Source</u></b>	<b><u>Percent</u></b>
National Grid Staff	64%
Regional/Local Economic Development Entity	19%
State Economic Development Agency	5%
Website (shovelready.com)	12%

Finally, the survey asked grant recipients to report on their opinions of National Grid programs, staff assistance and the application process itself. The results, summarized in Table 17, were generally very positive. The vast majority of respondents reported that the EDP programs and processes are easy to understand and navigate. While most respondents were satisfied with the timeliness of National Grid's application review and response, this is an area the Company will seek to improve upon in 2009.

**TABLE 17. SATISFACTION WITH PROGRAMS AND ADMINISTRATIVE PROCESS**

	<b>% Agree or Strongly Agree</b>	<b>% Disagree</b>	<b>% Strongly Disagree</b>	<b>No Responses</b>
<i>National Grid programs meet my needs exactly</i>	100%	---	---	---
<i>National Grid staff assistance was important in completing our application</i>	97%	2%	---	1%
<i>The application is easy to understand</i>	95%	3%	2%	---
<i>The application is easy to complete</i>	93%	5%	2%	---
<i>The required funding match is reasonable</i>	97%	3%	---	---
<i>Response to my application was timely</i>	88%	9%	3%	

## II. ECONOMIC DEVELOPMENT PLAN

### 2009 PROPOSAL

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#### 1. OVERVIEW

National Grid's 2009 proposal is the outcome of a collaborative process that included discussions with (among others) DPS Staff, ESD, NYSERDA, NYS Agriculture & Markets, NYSTAR, university representatives, commercial & industrial customers, and a broad cross section of regional, county and local economic development organizations across Upstate.

The 2009 proposal maintains a strong focus on site development, urban revitalization, strategic marketing, and facilitating customer growth through infrastructure assistance, energy efficiency and productivity improvement. The 2009 Plan also reflects an increasing emphasis on sustainable development, the efficient use (and re-use) of existing energy infrastructure, and the strategic deployment of renewable generation technologies.

Per the Commission's Order on National Grid's 2008 Economic Development Plan, the annual report will be filed with the Commission, regardless of projected spending levels vis-à-vis the spending targets specified in the merger rate plan.

Consistent with the original PSC Order (and Errata Notice), and recent discussions between National Grid and DPS Staff, the September 1 "Annual Report" filing will include both an evaluation of past activities and the program proposal for the following calendar year. Prior to 2008 this information was submitted in two separate reports.

As a result of discussions with DPS Staff and ESD the parties have agreed to communicate regularly on ED Plan applications, expenditures and policies. The Company proposes regular quarterly meetings to review and discuss year-to-date activity in terms of applications received and approved, grants disbursed, results achieved (jobs, capital investment, marketing progress, etc) and budget status. Information will be provided in aggregate as well as at the project level. Grants to IDAs and other economic development entities will be identified by name, however "direct" customer grants will not include the business name or other identifying information – consistent with National Grid's longstanding customer confidentiality policies.

The Company is introducing three new initiatives this year and is proposing substantive changes to several existing programs as well. These are summarized below and presented in detail in the program descriptions that follow. Minor "housekeeping" changes have also been made throughout the program descriptions.

Finally, the forecast for total 2009 Economic Development Plan expenditures is \$8 million. National Grid will maintain a strong focus on minimizing potential deferrals by staying within the rate plan allowances for the EDP (\$12.5 million/per year) and the overall ED Fund (\$36 million in 2009). Within the budgetary framework, the

Company will seek continued flexibility to shift funds between programs during the calendar year in response to customer demand, economic development priorities and market conditions.

## **2. SUMMARY – 2009 PROGRAM CHANGES**

### **New Initiatives**

*Power Quality Enhancement* – through calendar year 2008, the Capital Investment Incentive has provided for funding of power quality improvements for expanding customers with serious power quality issues. While the Company has funded a small number of projects in this category, it has become clear that the majority of power quality issues are not addressed as part of a larger investment in plant and equipment. As a result, National Grid's 2009 Economic Development Plan includes a new, more broadly applicable program which will obviate the need for PQ assistance through the Capital Investment Incentive.

*Manufacturing Productivity Program* – the Company sees a tremendous opportunity to help existing commercial and industrial customers improve their profitability through energy efficiency and productivity improvement. In addition to proposing robust new programs as part of the Energy Efficiency Portfolio Standard proceeding, National Grid intends to continue using its Economic Development Plan to provide targeted productivity assistance to manufacturers and other C&I customers. This new initiative will help small and medium sized manufacturers become more competitive through a combination of both efficiency and growth oriented measures.

*Agribusiness Productivity* (formerly Dairy Industry Productivity) – In addition to extending benefits formerly provided through the Dairy Industry Productivity Program this initiative will be open to controlled environment agricultural facilities (greenhouses). In addition funding will be available for renewable energy products directly serving Agribusiness facilities.

### **Changes to Existing Programs**

*Capital Investment Incentive* – Over the past year, a number of existing and prospective customers have evaluated extremely large investments in the National Grid territory. Several of those projects have involved a total cost of over \$100 million, with very large accompanying energy infrastructure investments. These include "Project Big," a Midwestern U.S. photovoltaic manufacturing company currently considering an investment of over \$1 billion in Genesee County. In order to provide a more appropriate incentive for projects of this scale, the Company is proposing an increase in the per-project funding limit, from \$250,000 to \$500,000. The higher limit would apply only to projects with a total capital investment of at least \$50 million, and energy infrastructure costs of at least \$2 million.

*3-Phase Power Incentive* – This program was modified to allow additional funding for onsite renewable generation, as a means of accommodating customer growth while avoiding the construction of uneconomic (for the customer and/or for other ratepayers) 3-phase infrastructure.

*Mainstreet Revitalization* – The Company has seen a number of excellent redevelopment opportunities that involve multiple buildings in central business districts. The funding limit for this program will be raised for large (at least \$5 million), multi-building revitalization projects.

*Industrial Building Redevelopment* – The IDA grant administration fee has been eliminated. Projects will still require IDA support.

*Brownfield Redevelopment* – In response to suggestions from county and regional economic developers, 501(c)4 corporations have been added to the definition of an eligible applicant and the program now allows for co-funding of preliminary environmental investigations. Brownfield redevelopment remains one of National Grid's primary development interests and these changes are intended to further encourage sustainable economic development in Upstate New York.

*All Programs* – Language has been added to each program description to inform applicants that funding will not be available after the end of the Merger Rate Plan (December 31, 2011) without prior written consent from the Company.

## **2009 Program Descriptions**





## CAPITAL INVESTMENT INCENTIVE

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

**Program Summary:** Major economic development projects that create a large number of jobs are generally eligible for a wide range of public assistance from Empire State Development and/or local industrial development agencies. These existing economic development programs may overlook projects which may not be significant job generators, but are nonetheless extremely important to a business and to its regional economy.

The **Capital Investment Incentive Program** provides funds to help offset the customer costs associated with upgrading utility infrastructure to accommodate a business expansion or new construction project. Specifically, this program supports business attraction or expansion projects located in National Grid's upstate New York service territory. The applicant must demonstrate that they are unable to secure sufficient funding for the project through federal, state, or local economic development programs. Application requests may include, but are not limited to the following:

- Improvements to National Grid's electric or natural gas system, such as line extensions or upgrades to transmission lines or distribution feeders, that require a customer contribution.
- Conduit, trenching, and backfill associated with National Grid owned infrastructure.
- Customer owned substations, transformers, pads, switchgear, meter cabinets, and metering devices in the case where a new or expanding customer is required to increase the size of their service.

**Minimum Program Requirements:** *Please review the program requirements and guidelines below, prior to completing an application for funding.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ❑ Be the customer of record (owner or lessee) of an eligible facility or prospective eligible facility;
- ❑ Demonstrate efforts to obtain state & local economic development incentives for the facility;
- ❑ Demonstrate the ability to retain and/or attract jobs and capital investment to the eligible facility; and,
- ❑ Make a capital investment that requires electric and/or natural gas infrastructure improvements.

To be eligible for this program, the **facility (business) or prospective facility** must:

- ❑ Be located in National Grid's upstate New York service territory;
- ❑ Demonstrate Industrial Development Agency (IDA) or other public development agency support for the project;
- ❑ Have National Grid owned electric or gas infrastructure that is clearly a barrier to attracting new industrial or commercial activity;
- ❑ Have an average monthly demand after the capital investment of at least 500kW;  
**or,**
- ❑ Have a natural gas classification as one of the following: SC4, SC5, SC6, SC8 or SC9; and,
- ❑ Be used for a business that can be classified in the North American Industry Classification System (NAICS) as one of the following Manufacturing or Service Industry businesses:
  - Manufacturing (NAICS codes 31, 32 or 33)
  - Wholesale trade (NAICS code 42)
  - Regional warehousing or storage (NAICS code 493)
  - Professional, scientific or technical services (NAICS code 541)
  - Administrative or support services (NAICS code 561)

*(If you are unsure of your NAICS classification, you can look it up at <http://www.census.gov/epcd/www/naics.html>)*

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

Grant amounts are determined based on the **total** capital investment being made in plant & equipment (including energy and non-energy related investments) as follows:

<u>Total Capital Investment</u>	<u>Total Available Funding not to Exceed:</u>
\$100,000 to \$1 Million	\$50,000
\$1 Million to \$5 Million	\$100,000
\$5 Million to \$50 Million	\$250,000
\$50 Million and above	\$500,000 **

\*\*In order to qualify for the highest level of funding, energy infrastructure investments must be \$2 million or more, in addition to the above \$50 million investment requirement.

Program funds cannot represent more than 30% of the total capital investment costs (energy infrastructure and other related capital improvements).

Program funds cannot exceed the final cost of energy related infrastructure Improvements related to the project.

### **How to Apply**

To apply for the Capital Investment Incentive Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## 3-PHASE POWER INCENTIVE

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

National Grid's upstate New York service territory includes a significant number of small businesses and agri-business customers, whose growth at their current location is limited by the lack of 3-phase power to the site. Often these customers are located in remote locations, on electric distribution circuits that do not have enough other customers to share the cost of extending 3-phase service and make it economical.

The **3-Phase Power Incentive** program provides grants to help fund the extension of 3-phase electric service to eligible National Grid customers.

**Minimum Program Requirements:** *Please review the program requirements and guidelines below, prior to completing an application for funding.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ❑ Be the owner of the eligible facility;
- ❑ Demonstrate that they have evaluated alternatives to a 3-phase power extension, such as on-site generation using renewable energy alternatives or written pole motors;
- ❑ Demonstrate the ability to retain and/or attract jobs and capital investment; and,
- ❑ Demonstrate that 3-phase power is necessary to serve an increase in the customers electric load at that facility.

To be eligible for this program, the **facility** must:

- ❑ Receive electric service from National Grid; and,
- ❑ Be classified in the North American Industry Classification System (NAICS) as one of the following industry sectors:
  - Manufacturing (NAICS codes 31,32 or 33)
  - Wholesale trade (NAICS code 42)
  - Regional warehousing or storage (NAICS code 493)
  - Professional, scientific or technical services (NAICS code 541)
  - Administrative or support services (NAICS code 561)
  - Agri-business (NAICS code 111, 112, 113)
  - Tourism related NAICS code

*(If you are unsure of your NAICS classification, you can look it up at <http://www.census.gov/epcd/www/naics.html>)*

### **Funding and Eligibility Guidelines:**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Total amount of grant available to an applicant for a facility is \$50,000, except as noted below.
- ❑ Program funds may only be used to reduce the applicant's cost for extending 3-phase service to the eligible facility, except as noted below..
- ❑ Program funds cannot represent more than 30 percent of the total costs of the economic development project.
- ❑ Program funds cannot exceed the estimated cost of electric service infrastructure improvements related to the project.
- ❑ Where National Grid and the customer agree that an alternative to 3-phase electric delivery service should be implemented using renewable energy technologies (examples include wind, solar, bio mass, or hydro power), the grant may be used to offset up to 50 percent of the customer contribution to the project. The renewable generation must be for the customer's sole use and cannot be resold directly to other customers. The renewable generation installation must be connected and operated in accordance with the Company's Tariff. Total amount of grant available to an applicant installing renewable energy technologies on their premise is \$150,000. Grant funds cannot exceed the estimated cost of the otherwise applicable 3-phase line extension.
- ❑ Fund requests should also be submitted to the New York State Energy Research and Development Authority (NYSERDA). You may find information about NYSERDA programs at [www.nyserdera.org](http://www.nyserdera.org).

## **How to Apply**

To apply for the 3-Phase Power Incentive please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## COOPERATIVE BUSINESS RECRUITMENT

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

Regional, county and local economic development organizations have limited resources to devote to “marketing” their communities to attract business investment and jobs. This is true even of counties that possess extraordinary assets for business attraction – such as prime industrial sites or available buildings and infrastructure. While the cost of business attraction activities typically rely on local and regional resources, community expectations tend to be very high in terms of success in recruiting wealth-generating businesses.

The **Cooperative Business Recruitment** program provides incremental matching funds for cooperative marketing initiatives between National Grid and regional or local economic development partners.

Application requests may include but are not limited to the following:

- The creation of collateral material and direct mail campaigns
- Additional sales initiatives related to major business development events such as CoreNet Global Summits, Industrial Asset Management Forums, Expansion Management Roundtables and other events where site location consultants and corporate real estate executives gather
- Support research and assistance with site selection familiarization tours, industry trade shows and sales missions
- Initiatives directed toward industry trade groups
- Support for the creation and distribution of industry-specific publications

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ❑ Be a regional or local economic development corporation in the National Grid New York service territory.
- ❑ Provide economic development attraction services to a community or region located within the National Grid New York service territory.

To be eligible for this program, the **marketing project** must:

- ❑ Promote community attributes or resources that represent a major asset for business attraction;
- ❑ Be targeted to decision makers who can influence the attraction of new jobs and investment to the National Grid New York service territory; and,
- ❑ Be designed to attract new business, investment and jobs to the National Grid New York service territory based on the following factors:
  - The extent to which the project compliments (and not duplicates) other local, regional and state business attraction efforts
  - The economic development potential of the asset that is being promoted through the project
  - The project sponsor's ability to accomplish and sustain the effort of the project
  - The project sponsor's ability to leverage federal, state and local matching funds
  - If any research is proposed, the extent to which it does not duplicate previous research and is "actionable" (e.g. refining the targets, messages, materials and activities coming from it).

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- National Grid funds for cooperative projects must be matched on a 1:1 basis.
- Maximum grant per project is \$10,000.
- Grant funds cannot be applied to past business attraction efforts.
- Collateral materials must give credit to National Grid for their contribution.



## How to Apply

To apply for the Cooperative Business Recruitment please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## STRATEGIC ECONOMIC DEVELOPMENT PROGRAM

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

Competition for economic development projects among states and regions continues to grow. This National Grid program is designed to increase effective marketing and sales initiatives aimed at "strategic targets."

The **Strategic Economic Development Program** provides expertise and incremental resources to leverage more and better macro-level business attraction research, marketing and sales efforts. The goal is to generate out-of-state prospects for direct investment in the National Grid New York service territory.

Application requests may include but are not limited to the following:

- Support for target industry analysis for business attraction marketing and sales purposes;
- Outreach initiatives directed towards industry trade groups;
- Support for the creation and distribution of industry-specific publications, profiles and studies;
- Support for preparing assets to be marketed, such as Build Now NY industrial parks, multi-use facilities, etc.
- Support for efforts to attract major tourism destination facilities including infrastructure assistance.

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

**Minimum Program Requirements:** *To apply for the Strategic Economic Development Program please:*

To be eligible for this program, the **applicant** must:

- ☐ Be a state or regional economic development entity in National Grid's Upstate New York service territory.

To be eligible for this program, the **project** must:

- ☐ Develop, prepare or promote a specific asset or group of assets that enhance the competitiveness of the Upstate New York region or of all of Upstate New York, **and**
- ☐ Be targeted to decision makers who can influence the attraction of new jobs and investment to the National Grid New York service territory, **and**
- ☐ Demonstrate the economic development potential of the asset that is being developed and/or promoted through the project.

- ☐ Demonstrate the ability to accomplish and sustain the effort of the project and leverage federal, state, and local matching funds.

Research and marketing projects must:

- ☐ Not duplicate previous projects.
- ☐ Be “actionable,” refining the targets, messages, materials, and activities coming from it.
- ☐ Must target decision makers and specific industries.

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

### **How to Apply**

To apply for the Strategic Economic Development Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application; and,  
Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## ENERGY EFFICIENCY IN EMPIRE ZONES

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

New York State designated Empire Zones are fertile ground for demand-side management energy initiatives. Many Empire Zones are in highly urbanized areas and are dominated by relatively old, inefficient buildings and with aging infrastructure. Because these customers do not pay the New York state Systems Benefit Charge (SBC) on their Empire Zone Rider (EZR) eligible usage, they are not eligible for assistance through the New York State Energy Research and Development Authority's (NYSERDA) commercial energy efficiency programs. (A complete list of NYSERDA programs and guidelines may be found at <http://www.nyserda.org/programs.html>)

The **Energy Efficiency in Empire Zones** program provides assistance to Empire Zone businesses in the service territory of National Grid New York. The program provides incentives to eligible customers for installation of energy-efficient lighting, controls, HVAC equipment, motors/electronic speed controls, and other systems that reduce energy use and/or enhance productivity. Application requests may include but are not limited to the following:

- Energy efficiency lighting, ballasts, fixtures and lighting controls
- A-C Energy Efficient Motors and electronic speed control devices
- Ventilation fans driven by AC Motors
- Centrifugal pumps driven by AC Motors
- Process equipment driven by AC Motors and controls
- Refrigeration Equipment
- Heat Recovery Equipment
- Limited Building Envelope Modifications
- Compressed Air Systems
- Boiler/Boiler Controls
- HVAC Components
- Air Handling Systems
- Load Management Equipment and Systems
- Building Automation and Energy Management Systems
- Equipment associated with green building technologies and LEEDS building initiatives (Leadership in Energy & Environmental Design)

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ❑ Be the owner of the eligible business **and**;
- ❑ Be a certified Empire Zone customer **and**;
- ❑ Be receiving energy delivery benefits under National Grid's Empire Zone Rider (EZR) Program **OR** undertaking an EZR qualifying expansion

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Incentives must be installed within 2 years of the grant approval date.
- ❑ Grants only apply to energy efficiency equipment identified through the application process.
- ❑ Projects involving construction of a new building are not eligible for funding under this program.
- ❑ Building renovation and expansion projects are eligible to the extent that they yield energy efficiency savings through replacement of equipment and systems
- ❑ Grants will not exceed \$25,000.
- ❑ At a minimum the customer must fund at least 25% of total project costs and the National Grid New York funding must represent no more than 50% of the total project costs.
- ❑ Customers must be Empire Zone certified and receiving discounted energy delivery service through National Grid's Empire Zone Rider, or certified and undertaking an EZR qualifying expansion project.

## How to Apply

To apply for the Energy Efficiency in Empire Zones please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## AGRI BUSINESS PRODUCTIVITY

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

The agri business industry is a critical component of the upstate New York economy, both as a direct employer and wealth generator and as a key input to a large number of "downstream" manufacturing industries.

The **Agri Business Productivity** program provides rebates to fund energy efficiency, renewable energy delivery and/or productivity improvements undertaken by dairy businesses, dairy farms and controlled environment agricultural facilities located within the service territory of National Grid New York.

Application requests may include but are not limited to the following:

- ☐ Energy efficiency lighting, ballasts, fixtures and lighting controls
- ☐ A-C Energy Efficient Motors and electronic speed control devices
- ☐ Ventilation fans driven by AC Motors
- ☐ Centrifugal pumps driven by AC Motors
- ☐ Process equipment driven by AC Motors and controls
- ☐ Renewable energy projects directly serving the facility (anaerobic digestion, solar, bio-mass, or hydro power)
- ☐ In addition, the project costs can include the costs associated with renovating/retrofitting customer distribution systems (i.e. building wiring/grounding).

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ☐ Be a dairy farmer and/or a milk processing business or controlled environment agriculture facility in the National Grid New York service territory

To be eligible for this program, the **facility (business or farm)** must:

- ☐ Receive electric or natural gas service from National Grid, **and**
- ☐ Be undertaking an energy efficiency project through the New York Energy Research & Development Authority (NYSERDA) or other public agency or program; OR

- ❑ Purchasing/installing equipment for a renewable energy project to serve facility; OR
- ❑ New constructing/upgrading (for increased energy efficiency) a controlled environment agriculture facility.

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Grant amounts will be determined based on the size of the **total** capital investment you are making in your project/facility (including energy and non-energy related investments) as follows:

<u>Total Capital Investment</u>	<u>Total Avail Funding not to Exceed:</u>
Under \$25,000	\$5,000
\$25,000 up to \$100,000	\$10,000
\$100,000 up to \$500,000	\$25,000
Above \$500,000	\$50,000

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a wide variety of factors. Most applications will not be scored at a level which will result in the maximum grant award.

- ❑ Program funds will be provided after funding from NYSEERDA, New York State Ag & Markets or other program resources have been secured.
- ❑ Applicant must document its contribution of matching funds to equal 25% of the total project costs.
- ❑ Eligible renewable generation projects must be connected and operated in accordance with the company's Tariff.



## **How to Apply**

To apply for the Agri Business Productivity please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## POWER QUALITY ENHANCEMENT PROGRAM

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

This program offers financial incentives to qualified customers for the installation of power quality mitigation equipment and controls. Qualifying applicants must demonstrate their facility has a power quality problem that results in production, operational, or quality constraints, including but not limited to downtime and outage costs.

The **Power Quality Enhancement Program** provides assistance to qualifying businesses in the service territory of National Grid New York. The program helps fund eligible customers for installation of power quality mitigation equipment and services.

National Grid Service Classification 3, 3A and 4 customers in manufacturing, research & development, or health care sectors are eligible to submit an application for a reimbursement grant from the program.

Application requests may include, but are not limited to the following:

- Voltage Ride-Through Equipment
- Harmonic Filters
- Voltage Regulators
- Power Conditioning Equipment
- Harmonic Rated Isolation Transformers
- Transient Voltage Surge Suppression
- Uninterruptible Power Supplies
- Power Quality Controls
- Diagnostic Services
- Power Quality Monitoring
- Power Quality Measurements & Verification

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ❑ Be the owner of the eligible business **and**;
- ❑ Be a Service Classification 3, 3A or 4 customer

To be eligible for this program, the **facility (business)** must:

- ❑ Receive electric service from National Grid, **and**
- ❑ Be classified in the North American Industry Classification system (NAICS) as one of the following industry sectors:
  - Manufacturing,
  - Research and development
  - Health Care Sectors

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Incentives must be installed within 2 years of the grant approval date.
- ❑ Grants only apply to power quality equipment or services identified through the application process.
- ❑ Projects involving construction of a new building are not eligible for funding under this program.
- ❑ Building renovation and expansion projects are eligible to the extent that they identify and mitigate power quality problems resulting in operational, production, or quality constraints
- ❑ Grants will not exceed \$50,000.
- ❑ At a minimum, the customer must fund at least 25% of total project costs and the National Grid New York funding must represent no more than 50% of the total project costs.

## **How to Apply**

To apply for the Power Quality Enhancement Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## MANUFACTURING PRODUCTIVITY PROGRAM

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

Manufacturing employs over 550,000 New Yorkers and contributes \$61 billion annually to New York State's GDP. Every manufacturing job creates more than 2.5 related jobs in other sectors, and every dollar spent generates an additional \$1.37 in economic activity\*. Small and medium sized upstate New York manufacturers are challenged by high costs and regulatory pressures. They must continually improve productivity and performance to remain competitive in the global economy. In order to grow, they must develop new products and improve their return on investment from sales and marketing activities by finding new customers, markets, and export opportunities. This program has been developed in partnership with the Regional Technology Development Centers (RTDCs) from Western New York, Finger Lakes, Central New York, Mohawk Valley, North Country, and Capital Region and will be delivered in conjunction with these TDCs. TDC contact information is provided at the end of this program description.

\* Source: Manufacturers Association of Central New York

The **Manufacturing Productivity Program** provides matching grants of up to \$15,000 or 40% (whichever is less) of the costs incurred by eligible applicants whose top management commits the time and resources to "lean manufacturing" projects or manufacturing assistance projects that result in eliminating waste and increasing productivity on the "shop floor" and in the office.

Further the program provides matching grants of up to \$15,000 or 50% (whichever is less) of the costs incurred by eligible applicants whose top management commits the time and resources to growth-targeted activities that will result in greater utilization of manufacturing capacity.

Finally, the program provides matching grants of up to \$40,000 or 60% (whichever is less) of the costs incurred by eligible applicants whose top management commits the time and resources to projects that combine and coordinate the productivity and growth activities described above.

Grant awards will be funded in conjunction with Regional Technology Development Centers upon verification of increased productivity and capacity, improvement of the bottom-line and pursuit of additional sales with the same work force. Priority consideration will be given to projects that involve energy efficiency, energy utilization, and/or environmental solutions.

Applications for matching grant assistance must meet the following program requirements.

### Minimum Program Requirements

To be eligible for this program, the **applicant** must:

- ❑ Be a SC 2D, SC 3, SC 3A or SC 4 customer in good standing within National Grid's upstate New York service territory\*;
- ❑ Be a business that is classified in the North American Industry Classification System (NAICS) as Manufacturing (NAICS codes 31, 32 or 33);
- ❑ Execute an agreement that commits top management to the processes that result in the productivity and development improvements articulated in this program distribution; and,
- ❑ Provide evidence of funding from the company and other sources that is sufficient to complete the proposed project. The company must provide a minimum of 25% of the total funding from its own capital.

NAICS classifications can be found on-line at <http://www.census.gov/epcd/www/naics.html>

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **project** must accomplish one or more of the following:

- ❑ Optimize the current facility
- ❑ Increase machine effectiveness
- ❑ Improve product quality
- ❑ Reduce costs
- ❑ Reduce lead times
- ❑ Improve process-flow
- ❑ Increase inventory turns
- ❑ Expand markets
- ❑ Develop new customers
- ❑ Develop new products

### Funding and Eligibility Guidelines

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

### **How to Apply**

To apply for the Manufacturing Productivity Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*

### **Capital Region**

Center for Economic Growth  
63 State Street  
Albany, NY 12207  
Phone: 518-465-8975  
[www.ceg.org](http://www.ceg.org)

### **North Country**

Council for International Trade, Technology, Education and Communication (CITEC)  
Peyton Hall, Clarkson University  
Main Street, Box 8561  
Potsdam, NY 13669-8561  
Phone: 315-268-3778  
[www.citec.org](http://www.citec.org)

**Mohawk Valley**

Mohawk Valley Applied Technology Corporation  
207 Genesee Street, Suite 405  
Utica, NY 13501  
Phone: 315-793-8050  
[www.mvatc.com](http://www.mvatc.com)

**Central New York**

Central New York Technology Development Organization  
1201 East Fayette Street  
Syracuse, NY 13210  
Phone: 315-425-5144  
[www.cnytdo.org](http://www.cnytdo.org) or [www.tdosolutions.com](http://www.tdosolutions.com)

**Finger Lakes**

High Technology of Rochester  
150 State Street, 4th Floor  
Rochester, New York 14604  
Phone: 585-214-2400  
[www.htr.org](http://www.htr.org)

**Western New York**

Insyte Consulting  
726 Exchange Street, Suite 620  
Buffalo NY 14210  
Phone: 716-845-6355  
FAX: 716-845-6418  
[www.insyte-consulting.com](http://www.insyte-consulting.com)





## BROWNFIELD REDEVELOPMENT ASSISTANCE PROGRAM

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

Nearly every community in New York State is affected by brownfield sites and abandoned properties. Contaminated and abandoned properties exist in big cities, small towns, sprawling suburbs and the country side. Left untouched, brownfields pose environmental, legal and financial burdens on a community and its taxpayers. However, after cleanup, these sites can again become the powerful engines for economic vitality, jobs and community pride that they once were.

The **Brownfield Redevelopment Assistance Program** provides grants to fund utility related infrastructure improvements, demolition, and other costs that are necessary to progress the redevelopment of a *brownfield* site or abandoned building. Application requests may include but are not limited to the following:

- Demolition that results in the clean-up and re-use of a contaminated site or building;
- Electric & gas infrastructure improvements; and,
- Costs associated with the local match for NYS DEC Environmental Restoration Program (ERP) and the Brownfield Opportunity Area Program (BOA).
- Phase I and Phase II environmental site assessments

Priority will be given to site or building redevelopment projects that have obtained a sufficient amount of funding to fulfill the project redevelopment goals.

**Minimum Program Requirements:** *Please review the program requirements and guidelines below prior to completing an application for funding.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must be:

- ❑ A municipality and/or its authorized development corporation, **or**
- ❑ A 501(c)3, 501(c)6, or 501(c)4 corporation, working in tandem with a municipality and/or its Industrial Development Agency or Local Development Corporation.
- ❑ Be the owner or developer of the eligible site with the endorsement of the municipality

To be eligible for this program, the **project (site or building)** must:

- ❑ Receive electric or gas service from National Grid;
- ❑ Have existing electric or natural gas infrastructure that is clearly a barrier to attracting new industrial or commercial activity; and,
- ❑ Have a viable commercial or industrial end use strategy for the site, based on some or all of the following factors:
  - Physical condition of building or site
  - Potential for land acquisition or site control
  - Regional economic impact of successful reuse
  - Demonstrated ability to accomplish and sustain reuse as a commercial or industrial site.
  - Demonstrated ability to obtain federal, state and other funding
  - Demonstrated ability to market the site or building to attract economic investment
  - Eligibility for state and federal development funds for the total project costs
  - Strength of development partnerships and community support

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Program funds may only be used for up to 25% of total redevelopment costs for the site or building for projects over \$1,000,000.
- ❑ Program funds for Phase I and Phase II Environmental investigations and other preliminary site/building investigations will be awarded for projects to a maximum of \$25,000.
- ❑ National Grid funds may be used as matching funds for other public grants. In this instance, National Grid will commit dollars contingent upon the successful awarding of the grant, but will not release funding until all required project funding is in place.
- ❑ Maximum grant allowable for a project is \$300,000.

### **How to Apply**

To apply for the Brownfield Redevelopment Assistance Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## BUILDING READY UPSTATE PROGRAM

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

Many Upstate NY communities lack an inventory of quality buildings to attract new businesses. Another hurdle to overcome is the length of the approval process for constructing a new building. Empire State Development has started a program (Shovelready certification) to address the length of time necessary in permitting sites. This program would follow the same principles of reducing the up-front time required in gaining the necessary approvals for new building construction.

The **Building Ready Upstate** program provides grants to fund building drawings, site plans, and design specifications that would meet local Planning Board approval and other costs that are required to reduce the up-front time needed to construct a new facility.

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ☐ Be the owner or developer of an appropriate site endorsed by the local IDA, **or**
- ☐ Be the local ED organization, **and**
- ☐ Be willing to actively market the building to out-of-state prospects

To be eligible for this program, the **project** must:

- ☐ Receive electric or gas service from National Grid, **and**
- ☐ Receive the endorsement of an Industrial Development Agency (IDA) or the principal development agency for the community, **and**
- ☐ Be suitable for use by one of the following "economic growth" industries:
  - Manufacturing,
  - Distribution Centers
  - Regional warehousing or storage
  - Research and development
  - "Back office" such as data processing or customer service operations, **and**
- ☐ Be a minimum of 20,000 square feet
- ☐ At project conclusion show evidence of project completion and certification by the local planning board

## **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Program funds may only be used for up to 75% of total costs for building drawings, design work, and marketing.
- ❑ Priority will be given to projects that have a sufficient amount of funding committed.
- ❑ Priority will be given to applicants who have aggressive marketing plans designed to attract new businesses.
- ❑ Grant amounts will be limited to a maximum of \$30,000 and cannot exceed 75% of the total project cost.

## **How to Apply**

To apply for the Building Ready Upstate Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## INDUSTRIAL BUILDING REDEVELOPMENT PROGRAM

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

National Grid's upstate New York service territory has many vacant and underutilized buildings or complexes (integrated groups of buildings) that were originally built for and occupied by a single, large end-user. These buildings and complexes are unlikely to attract single end-users, so they must be marketed as multi-tenant, industrial properties. One of the challenges to the marketability of these properties is the expense of separating the utilities.

The **Industrial Building Redevelopment Program** provides grants of up to \$250,000 (based on the amount of capital investment per the chart below) to property owners who are upgrading electric and/or natural gas infrastructure to return these properties to active industrial use.

<u>Total Capital Investment</u>	<u>Available Funding Not to Exceed</u>
Under \$1Million	\$50,000
\$1Million to \$5Million	\$100,000
\$5Million and above	\$250,000

**Minimum Program Requirements:** *Please review the program requirements and guidelines below, prior to completing an application for funding.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ☐ Be the owner, duly authorized representative of the owner or contract purchaser of the eligible facility;
- ☐ Demonstrate a willingness and ability to actively market the building to out-of-state companies;
- ☐ Obtain Industrial Development Agency (IDA) or other public development agency support for the project.

To be eligible for this program, the **project** must:

- ☐ Be building or integrated group of buildings that were at one time occupied by a single user;
- ☐ Receive electric or natural gas service from National Grid;
- ☐ Be vacant or underutilized (underutilized means that at least 50% of the usable space is vacant);

- ❑ Have existing electric or natural gas infrastructure that is clearly a barrier to attracting new industrial or commercial activity;
- ❑ Be at least 100,000 square feet or larger;
- ❑ At project conclusion, provide a certificate of occupancy or a certificate of compliance from the local building codes department; and,
- ❑ Be suitable for use by one of the following industries:
  - Manufacturing
  - Wholesale trade
  - Regional distribution center
  - Professional, scientific, or technical services
  - Research and development
  - “Back office” such as data processing or customer service operations

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Program funds may only be used to offset 50% of costs associated with upgrading, segregating, or otherwise making the property’s electric and/or gas infrastructure suitable for occupancy by multiple tenants. This could include costs associated with planning, design, engineering, and construction costs associated with new infrastructure.
- ❑ Priority will be given to applicants who furnish aggressive marketing plans designed to attract new businesses to the completed project.

## **How to Apply**

To apply for the Industrial Building Redevelopment Program please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*





## SHOVEL READY INCENTIVE

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

There are currently multiple sites in National Grid's New York's service area that have gone through or are going through the NYS *BuildNow NY* Program, the Shovel-Ready Certification Program and the Chip Fab 98/Semi-NY site designation. These sites represent the National Grid service area's best potential industrial development opportunities. While these sites may be considered premium economic development "product", many still lack the necessary infrastructure to make them marketable to economic development prospects that require a fully developed site for fast-tracked location decisions. National Grid has created this program to help make these designated sites more marketable for the attraction or expansion of job creating companies.

The **Shovel Ready Infrastructure** program provides grants of up to \$125,000 for the installation of electric and natural gas infrastructure by property-owners and local development agencies to the designated *BuildNow NY*, Shovel-Ready NY and Chip Fab 98/SemiNY sites, served by National Grid, and for engineering studies that will advance a site in the Shovelready development process.

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ☐ Be the owner of the eligible site, **or**
- ☐ Be a public or not-for-profit economic development agency responsible for the development of the site.

To be eligible for this program, the **project (site)** must:

- ☐ Be located within the National Grid New York franchise area, **and**
- ☐ Be a designated BuildNow NY, Shovelready Certified or Chip Fab/98/SemiNY site, **and**
- ☐ Have existing electric or natural gas infrastructure that is clearly a barrier to attracting new industrial or commercial activity, **and**
- ☐ Have a plan for marketing the site
- ☐ (For a list of BuildNow NY, Shovelready Certified or Chip Fab/98/SemiNY, sites and more information on the program go to [www.ShovelReady.com](http://www.ShovelReady.com))

## **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Grant funds may be used for the installation of National Grid - owned electric and natural gas infrastructure. These grant funds will provide a maximum of 25% of total site development costs, not to exceed \$125,000.
- ❑ Grant funds may also be used for engineering studies that will advance a site in the Shovelready development process. These grant funds must be matched 1:1 and cannot exceed \$50,000.

## **How to Apply**

To apply for the Shovel Ready Incentive please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## URBAN CENTER/COMMERCIAL DISTRICT REVITALIZATION

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

The service territory of National Grid New York includes six major urban centers with populations above 50,000. A rising demand for urban living spawned by "empty nesters" and accelerated commercial district improvements created by urban university investments in their neighborhoods present a unique opportunity to utilize excess utility infrastructure and create new employment and capital investment in upstate New York's cities. This program is designed to assist the larger urban centers in National Grid New York's service territory achieve their revitalization goals, increase property tax bases, and promote "smartgrowth" investment in central business districts and commercial corridors.

The Urban Center/Commercial District Revitalization program provides matching grants of up to \$1,000,000 over a two-year period to municipalities, local development corporations, universities, and medical complexes undertaking major neighborhood revitalization projects. Eligible projects must be endorsed by appropriate municipal authorities and tied to specific investments in vacant/underutilized structures and sites within the urban core. Projects that capitalize on the distinctive character of historic city neighborhoods and demonstrate an aggressive approach toward attracting retail pioneers and reclaiming vacant structures will be considered favorably in the application process. Application requests may include the following activities:

- electric and gas infrastructure and lighting installations associated with pedestrian corridor improvements, site preparation and building rehabilitation
- the development of pre-construction drawings to advance an urban redesign plan associated with lighting improvements is also eligible, to the maximum extent possible lighting designs will promote energy efficiency.

Applicants must demonstrate a 3:1 match of public and other private resources to obtain funds under this program.

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must be:

- ❑ A municipality and/or its authorized development corporation, **or**
- ❑ A 501(c)3 or 501(c)6, university, or medical complex with the endorsement of the authorized municipality where the project is taking place

To be eligible for this program, the **project** must:

- ❑ Reside within the National Grid franchise area, **and**
- ❑ Be located in a central business district or commercial area, **and**
- ❑ Have existing utility infrastructure that is underutilized, **and**
- ❑ Have a 3:1 match of other public and private funds to National Grid's dollars, **and**
- ❑ Show specific evidence of job creation and capital investment by businesses or other economic entities attracted or retained by the project, **and**
- ❑ Show evidence of concurrent commitment to the renovation of vacant or underutilized sites and structures within the urban core , **and**
- ❑ Reside within a Community Development Block grant entitlement city (population above 50,000)

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Program funds may only be used to offset 33% of costs (3:1 funding match required) associated with planning, design, engineering, and construction costs related to the enhancement of a Urban Center/Commercial District involving lighting projects.
- ❑ Priority will be given to applicants who demonstrate smart growth strategies and partnerships designed to attract new investment and jobs in the urban core.
- ❑ Due to the size of the grants available through this program, the maximum limit for each eligible city is \$1,000,000.

## **How to Apply**

To apply for the Urban Center/Commercial District Revitalization please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*



## MAIN STREET REVITALIZATION

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

The service territory of National Grid, New York includes a substantial number of small to medium sized urban centers and main street corridors that possess unrealized potential and are located where National Grid often has excess utility infrastructure and capacity. This program is designed to assist communities in promoting "smart growth" and private sector investment in central business districts and commercial corridors that help their competitive viability, attract investment, and capitalize on their distinct development potential.

The Main Street Revitalization program provides matching grants of up to \$50,000 per project to municipal and non-profit development corporations' undertaking efforts to revitalize critical mainstreet/commercial corridors. Application requests may include the following: development of pre-construction documents that advance an existing community accepted design plan, site preparation and construction of commercial and industrial adaptive re-use projects and renovation and rehabilitation of commercial, industrial or mixed-use buildings under 100,000 square foot. Priority projects will be sustainable and demonstrate use of green building technologies/LEED certified initiatives (Leadership in Energy & Environmental Design) and Greening USA's 12 Traits of Sustainability. This program is not intended to provide funds for civic facilities, for example, sports and recreation complexes, libraries, public buildings, etc. Projects must be located in an underutilized central business district/commercial area. The building itself should be vacant or within a commercial area that has a vacancy rate of at least 50%. Projects that demonstrate job creation and the ability to stimulate ancillary public and private investment will be reviewed favorably in the evaluation process. Applications showing commitments from public funding resources such as the Governor's Office of Small Cities and Empire State Development are encouraged.

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must be:

- ❑ A municipality and/or its authorized development corporation, **or**
- ❑ A 501(c)3 or 501(c)6 corporation, working in tandem with a municipality and/or its Industrial Development Agency/Local Development Corporation.

To be eligible for this program, the **project** must:

- ❑ Receive electric or natural gas service from National Grid New York, **and**
- ❑ Be located in a central business district or commercial area, **and**
- ❑ Have existing electric or natural gas infrastructure that is clearly underutilized, **and**
- ❑ Show evidence of private sector job creation/retention and capital investment, **and**
- ❑ Reside in a building/site that is vacant OR within a target redevelopment area that contains a 50% vacancy rate

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- ❑ Grant amounts will be determined based on the size of the **total** capital investment you are making in your project/facility (including energy and non-energy related investments) as follows:

<u>Total Capital Investment</u>	<u>Total Avail Funding not to Exceed:</u>
Under \$500,000	\$25,000
\$500,000 up to \$5 Million	\$50,000
\$5M – up to \$10 Million*	\$100,000
Above \$10 Million **	\$200,000

\* Building clusters given priority

\*\* Must be cluster development

- ❑ Program funds may only be used to offset 50% of costs (1:1 funding match required)
- ❑ Projects demonstrating *Greening USA's* "12 Steps of Sustainability" or receiving some level of LEED certification are more likely to be fully funded.

### **How to Apply**

To apply for the Main Street Revitalization please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*





## TARGETED FINANCIAL ASSISTANCE

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### Program Summary

National Grid New York, has a number of energy discount programs, including Service Classification No. 12 and the Empire Zone Rider (EZR). These programs are designed to attract new business customers to upstate New York, help existing National Grid customers expand their businesses, and to provide financial assistance to business customers who have severe competitive challenges.

The **Targeted Financial Assistance** program is intended to fill gaps (either timing and/or other special circumstances related to the competitive position of the plant for new investment) in the National Grid energy discount programs by providing energy price reductions to business customers that have significant growth opportunities and severe competitive challenges. Applications must demonstrate that they have sought and are receiving benefits/incentives from state, federal and/or local development agencies.

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ❑ Be the owner of the eligible facility.
- ❑ Demonstrate **one** of the following competitive threats or opportunities to your facility:
  - Facility closure due to financial reasons, **or**
  - Facility relocation from NM service territory to a location outside of NM service territory, **or**
  - Ability to attract new jobs and investment.

To be eligible for this program, the **facility** must:

- ❑ Be located within the National Grid New York service territory.
- ❑ Have an end use that may be classified in the North American Industry Classification System (NAICS) as one of the following Manufacturing or Service Industry businesses:
  - Manufacturing (NAICS codes 31, 32 or 33)
  - Wholesale Trade (NAICS code 42)
  - Regional warehousing or storage (NAICS 493)

- Professional, scientific or technical services (NAICS code 541)
- Administrative or support services (NAICS code 561)

(If you're not sure what NAICS classification your business is, simply check on-line at <http://www.census.gov/epcd/www/naics.html>)

- ❑ Have an average metered monthly electric demand of at least 500kw. If you do not know your average metered monthly demand, look at the facility's National Grid bill for this information.
- ❑ Meet **one** of the following conditions that indicates your facility is an intense user of energy:
  1. Your facility imposes or is likely to impose monthly electric peak demand of more than 5,000 kW, **or**
  2. Your facility's electricity bills represent at least 8% of your facility's annual gross revenue from sales (You can figure this by your total annual electric bills divided by your annual gross sales), **or**
  3. Your facility has an average monthly load factor of at least 70%. (If you are unsure what your load factor is use the following calculator.

### **Load Factor Estimator**

$$\text{Load Factor} = \frac{\text{Monthly Usage (kWh)}}{\text{Monthly Peak Demand (kW) x 720}}$$

### **Funding and Eligibility Guidelines**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

- Discounts are available to eligible customers for up to a 3-year period.
- Maximum discounts may not exceed \$250,000 per customer in any year.
- The total amount of discounts a customer may receive may not exceed \$500,000.

- Priority will be given to customers who are not currently receiving the benefits of other National Grid Economic Development or other energy discount programs.
- Average delivery rates will never fall below National Grid's prevailing Empire Zone Rider (EZR) prices.
- If deemed eligible based on above criteria, awards will be granted and used on the following job requirements:

<u>Jobs retained or attracted</u>	<u>Total Avail Funding not to Exceed:</u>
Under 100	\$100,000
100-199	\$250,000
200-299	\$350,000
300 & above	\$500,000

### **How to Apply**

To apply for the Targeted Financial Assistance please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*

*Please do not submit an application unless you have reviewed it with your National Grid Account Manager.*



## **SMALL BUSINESS GROWTH (DEMAND CHARGE REDUCTION)**

*Note to state, regional, and local economic developers: If you intend to use this program as part of an overall incentive offer to a company, you must submit a written request to National Grid's Economic Development Department, in advance of the project announcement.*

### **Program Summary**

Growing medium size companies are responsible for an enormous amount of job growth in the service territory of National Grid New York. This program is designed to insure that those growing businesses can continue their success and provide an incentive to do so.

The **Demand Charge Reduction** program provides eligible businesses 2 years of electric service demand charge discounts.

**Minimum Program Requirements:** *Please review the following program requirements and guidelines, carefully. They will help you decide whether you want to apply for this program.*

*[Note: Program assistance is only available to customers in good standing, located within National Grid's upstate New York franchise territory. (Applicants must be current in payments with National Grid or have executed a deferred payment agreement with the Company.)]*

To be eligible for this program, the **applicant** must:

- ☐ Be the owner of the eligible business.
- ☐ Have an executed Service Classification No. 12 (SC-12) contract with National Grid, **and**
- ☐ Have been a SC2D customer prior to beginning their SC-12 contract term, and
- ☐ Be scheduled to complete the SC-12 contract term before December 31, 2003, **and**
- ☐ Have a metered monthly electric demand greater than 100kw but less than 500k.

*A customer's service classification and average monthly demand is located on its National Grid New York bill.*

### **Funding and Eligibility Guidelines:**

Program funding and parameters are established annually by National Grid. Grants are available on a continual basis until all funding is expended during that program year or until December 31<sup>st</sup> of the current program year. Funding is released to a grant award recipient only after the recipient has met all conditions of the program. In all circumstances, funding should be viewed by the applicant as a reimbursement for work completed following grant approval in the form of an award letter.

The grant award recipient should expect to execute a Funding Agreement with National Grid. The Agreement will outline the expectations of the grant program and the conditions upon which funds will be released.

Grant amounts listed are the maximum allowable award for each program. All applications are evaluated on a variety of factors. Some applications may not result in the maximum grant award.

If you are applying to more than one program for the same project, you must indicate that clearly on the application.

Under no circumstance will funding be released after December 31, 2011 without prior written consent from National Grid.

### **How to Apply**

To apply for the Small Business Growth (Demand Charge Reduction) please:

Complete and sign the program application;

Attach the required documentation as noted at the end of the application;  
and,

Submit all of the above to:

Karen Mousaw  
Economic Development Program Coordinator  
National Grid  
300 Erie Boulevard West  
Syracuse, NY 13202

*If you need assistance in completing the application, please contact Karen Mousaw via email at [Karen.Mousaw@us.ngrid.com](mailto:Karen.Mousaw@us.ngrid.com).*

**Please do not submit an application unless you have reviewed it with your National Grid Account Manager.**

## ED Plan Financial Summary & Forecast

Program	2007 Actuals Expenditures	2008 YTD Actuals Expenditures	Estimated Average Cost Per Project	Projected Completed Projects	2009 Estimated Expenditures
<b><u>Capital Investment Programs</u></b>					
Capital Investment Incentive	\$ 1,779,292	\$ 2,342,000	\$ 200,000	15	\$ 3,000,000
3-Phase Power	\$ 92,139	\$ -	\$ 100,000	3	\$ 300,000
25 Cycle Investment	\$ 821,482	\$ -	\$ 80,000	0	\$ -
<b><u>Marketing Programs</u></b>					
Strategic ED Outreach	\$ 1,073,567	\$ 486,869	\$ 150,000	7	\$ 1,050,000
Cooperative Business Recruitment	\$ 40,000	\$ 10,000	\$ 9,000	8	\$ 70,000
<b><u>Energy Efficiency &amp; Productivity Programs</u></b>					
Energy Efficiency in Empire Zones	\$ 228,520	\$ 90,486	\$ 20,000	11	\$ 220,000
Agribusiness Productivity	\$ 12,493	\$ -	\$ 10,000	27	\$ 270,000
Power Quality Enhancement	\$ -	n/a	\$ 50,000	5	\$ 250,000
Manufacturing Productivity	\$ -	n/a	\$ 30,000	11	\$ 330,000
<b><u>Site Development Programs</u></b>					
Brownfield Redevelopment	\$ 528,300	\$ 185,700	\$ 100,000	6	\$ 600,000
Building Ready Upstate	\$ 120,000	\$ 30,000	\$ 30,000	2	\$ 60,000
Industrial Bldg Redevelopment	\$ 105,000	\$ 262,500	\$ 100,000	1	\$ 100,000
ShovelReady Infrastructure	\$ 288,416	\$ 386,770	\$ 100,000	3	\$ 300,000
<b><u>Revitalization &amp; Urban Dev Programs</u></b>					
Main Street Revitalization	\$ 505,900	\$ 180,000	\$ 60,000	10	\$ 600,000
Urban Center/Commercial Revitalization	\$ -	\$ -	\$ 500,000	1	\$ 500,000
<b><u>Pricing Incentives</u></b>					
Targeted Financial Incentives	\$ 100,000	\$ -	\$ 100,000	1	\$ 100,000
<b><u>ED Plan Communications</u></b>	\$ 219,168	\$ 136,489	n/a	n/a	\$ 250,000
<b>Total -- Proposed ED Plan Programs</b>	<b>\$ 5,914,277</b>	<b>\$ 4,110,814</b>	<b>n/a</b>	<b>111</b>	<b>\$ 8,000,000</b>

## **APPENDIX A – 2007 PROJECT LIST**

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2007 ED PLAN Disbursements								
AP #	Organization	Program Name	Region	County	Requested Amount	Granted Amount	Summary	Approval Date
4031	Morrisville College	Strategic Economic Development Outreach	Central	Madison	\$50,000	\$50,000	Ag business incubator in upstate ny to support micro enterprise entrepreneurial food product development, packaging & marketing	07/15/2004
4042	Clayton Local Dev. Corp.	Mainstreet Revitalization Program	Mohawk Valley/Northern	Jefferson	\$50,000	\$50,000	Redevelopoment of major portions of the Clayton Mainstreet for new commercial investment.	09/30/2004
4045	City of Cortland	Mainstreet Revitalization Program	Central	Cortland	\$50,000	\$50,000	Conceptual/preliminary architectural services and market analysis to support and entice the renocation and redevelopment of vacant upper floors in the Central Business District.	01/28/2005
5029	Rome IDC	Brownfield Redevelopment	Mohawk Valley/Northern	Oneida	\$48,000	\$48,000	Purchasing old Rome manufacturing bldg and renovating.	04/22/2006
5051	City of Schenectady IDA	Mainstreet Revitalization Program	Capital	Schenectady	\$50,000	\$50,000	Renovation of 133 Wall Street, a 26,000 sq. ft. historic downtown building. The 1st phase in this application is the 1st floor facade stabilization interior space fit up and building infrastructure rehab and upgrades.	06/23/2005
5054	City of Ogdensburg	Cooperative Business Recruitment	Mohawk Valley/Northern	St Lawrence	\$10,000	\$10,000	Undertaking a regional marketing strategy using several different forms of advertising.	08/06/2005
5058	XXXXXXX	Capital Investment Incentive	Mohawk Valley/Northern	Oneida	\$200,000	\$200,000	Construction and operation of 907,000 sq. ft. new fully automated distribution facility This is the Spaulding Fibre Redevelopment Project and consists of 47 acres and includes an 860,000 SF abandoned, industrial building and 20 acres of undeveloped land. The future us of this site is redevelopment as light industrial and commercial, with recreational components. This application was specifically created for the demolition of the building located within the site.	07/05/2005
5065	Erie County IDA	Brownfield Redevelopment	Western/Frontier	Erie	\$300,000	\$300,000		07/26/2005
5080	St. Lawrence County IDA	Strategic Economic Development Outreach	Mohawk Valley/Northern	St. Lawrence	\$19,350	\$9,350	Newton Falls Paper Mill Feasibility Study	09/06/2005
5087	XXXXXXX	Energy Efficiency in the Empire Zones	Central	Onondaga	\$25,000	\$17,150	Energy efficient lighting, windows and HVAC	09/06/2005
5089	XXXXXXX	25-Cycle Investment Program	Western/Frontier	Erie	\$208,089	\$100,000	conversion of freight elevators, sewage pumps and sump pumps	09/28/2005
5093	Orleans County LDC	Mainstreet Revitalization Program	Western/Frontier	Orleans	\$17,000	\$17,000	Rehabilitation and redevelopment of the 3 story building. 1st story will become retail shops and 2nd & 3rd story will be commercial & residential units.	10/20/2005
5096	SEDCO	Mainstreet Revitalization Program	Central	Onondaga	\$50,000	\$50,000	Renovation of historic building and site improvements to adjacent lots. The project consists of 19 apartment units, on-site parking, resident only fitness center and 1st floor retail.	01/12/2006
5098	Montgomery County IDA	Building Ready Upstate	Northeast	Montgomery	\$30,000	\$30,000	Development of a 20,000 square foot spec. building in the shovel ready certified Florida Business Park. This building will be developed for use as a manufacturing light industrial distribution or back office space and will be marketed directly to our already identified targeted core sector industry.	11/03/2005



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2007 ED PLAN Disbursements								
AP #	Organization	Program Name	Region	County	Requested Amount	Granted Amount	Summary	Approval Date
5101	Orleans EDA/IDA	Building Ready Upstate	Western/Frontier	Orleans	\$30,000	\$30,000	Development of a new 40,000 sq ft virtual building that is being built on a pre-determined 5 acre parcel at the Medina Business Park.	10/20/2005
5113	XXXXXXXXXX	Industrial Building Redevelopment	Mohawk Valley/Northern	Oneida	\$100,000	\$100,000	To insure proper power capacity, quality and reliability they need to improve the existing electrical service.	11/03/2005
5118	XXXXXXXXXX	Dairy Industry Productivity	Northeast	Montgomery	\$5,000	\$5,000	Dairy Farm energy efficiency improvement project.	12/07/2006
5120	XXXXXXXXXX	25-Cycle Investment Program	Western/Frontier	Erie	\$137,500	\$137,500	Conversion 25 cycle freight elevators, passenger elevators and transformers.	11/10/2005
5125	Syracuse University	Strategic Economic Development Outreach	Central	Onondaga	\$252,700	\$252,700	Supported urban master design plan for a major cooridor in downtown syracuse.	11/29/2005
5132	Anherst Chamber of Commerce	Building Ready Upstate	Western/Frontier	Erie	\$50,000	\$30,000	Visualization plan for underutilized urban neighborhoods to encourage new investment	07/26/2006
5133	SEDCO	Mainstreet Revitalization Program	Central	Onondaga	\$50,000	\$50,000	Renovation of vacant store on mainstreet corridor in Eastwood.	01/12/2006
5134	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	Onondaga	\$25,000	\$25,000	Installation of an energy efficient control system.	03/20/2006
5138	XXXXXXXXXX	25-Cycle Investment Program	Western/Frontier	Erie	\$175,000	\$175,000	Conversion of 25 cycle bridge	03/07/2006
5141	XXXXXXXXXX	25-Cycle Investment Program	Western/Frontier	Erie	\$30,000	\$30,000	Conversion of 25 cycle elevator system.	03/07/2006
5142	XXXXXXXXXX	25-Cycle Investment Program	Western/Frontier	Erie	\$152,800	\$152,800	Conversion of 25 cycle elevator system	06/10/2006
5143	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	Onondaga	\$25,000	\$25,000	Installation of an energy management control system.	03/20/2006
5144	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	Onondaga	\$25,000	\$25,000	Installation of an energy management control system.	05/03/2006
5146	CIDC - Carthage Ind. Dev. Corp.	Mainstreet Revitalization Program	Mohawk Valley/Northern	Jefferson	\$20,000	\$20,000	Restoration of 4 key facades which represent the remaining dilapidated buildings along the main street cooridor in downtown Carthage.	05/03/2006
5148	Erie County IDA	Brownfield Redevelopment	Western/Frontier	Erie	\$250,000	\$250,000	Redevelopment of approximately 12.5 waterfront acres into contemporary tourism destination.	03/31/2006

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2007 ED PLAN Disbursements								
AP #	Organization	Program Name	Region	County	Requested Amount	Granted Amount	Summary	Approval Date
6001	Village of Phoenix	Mainstreet Revitalization Program	Central	Oswego	\$50,000	\$50,000	Refocusing of village mainstreet coridor along erie canal providing funds for renovation of vacant or under-utilized buildings.	05/03/2006
6006	Mohawk Valley EDGE	Strategic Economic Development Outreach	Mohawk Valley/Northern	Oneida	\$90,000	\$80,000	Direct marketing strategy targeted at site selectors specializing in aviation, info-tech, nano-tech and back office industries. Designed to attract investment to available regional sites including Marcy IT, Frankfort Industrial Park and Griffis Tech Park.	04/11/2006
6008	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Capital	Albany	\$12,100	\$13,500	Installation of an energy management control system in Albany.	05/19/2006
6016	Adirondack Regional Chamber of Comm	Cooperative Business Recruitment	Northeast	Warren	\$10,000	\$10,000	Production of a DVD and multimedia CD Rom to cooperatively promote business relocation opportunities in Warren & Washington Counties.	05/19/2006
6017	Downtown Albany Business Imp District	Mainstreet Revitalization Program	Capital	Albany	\$50,000	\$50,000	Rehabilitation of the 9 story building in Albany. This building is currently vacant & will be remodeled to create a 74 room boutique hotel.	12/07/2006
6025	Buffalo Niagara Medical Campus	Strategic Economic Development Outreach	Western/Frontier	Erie	\$50,000	\$50,000	The initiative will focus on roughly 600,000 sq ft that will be used to support growth of the local info sciences industry and be a true cornerstone for BNMC development.	05/19/2006
6026	Buffalo Niagara Medical Campus	Strategic Economic Development Outreach	Western/Frontier	Erie	\$40,000	\$40,000	BNMC Economic Impact and Induced Development Study	05/19/2006
6029	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Mohawk Valley/Northern	Oneida	\$25,000	\$25,000	New energy efficient AC units and new control system for 4 air handling units that serve the can wash, can storage & can fill areas.	03/15/2007
6030	College of Nanoscale Science	Capital Investment Incentive	Capital	Albany	\$250,000	\$250,000	Construction of a new 60,000 sq ft clean room facility. To accomodate this clean room it is necessary to relocate & construct a high pressure gas line. \$200,000 has been paid out on this grant YTD.	08/07/2006
6034	Mohawk Valley EDGE	Strategic Economic Development Outreach	Mohawk Valley/Northern	Oneida	\$182,500	\$177,500	Funding for engineering and site analysis for SEMI-NY site on SUNY Institute of Technology campus in Marcy, NY and development of marketing and promotional materials for the semi-conductor and nano-technology industry.	07/25/2006
6036	XXXXXXXXXX	Capital Investment Incentive	Western/Frontier	Erie	\$250,000	\$250,000	This company is experiencing tremendous growth and a larger facility is cricial. They will be building a new 152,700 sq ft facility, more acreage, new equipment.	05/02/2007
6037	XXXXXXXXXX	Capital Investment Incentive	Western/Frontier	Erie	\$250,000	\$125,000	Building renovations of 119,000 sq ft of vacant bldg	12/07/2006
6042	XXXXXXXXXX	Dairy Industry Productivity	Western/Frontier	Cattaraugus	\$5,000	\$5,000	Dairy Farm energy efficiency improvement project.	04/05/2007
6048	XXXXXXXXXX	Capital Investment Incentive	Capital	Schenectady	\$250,000	\$250,000	Development and construction of 228,000 sq ft distribution facility with 1900kw of new load.	09/15/2006

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2007 ED PLAN Disbursements								
AP #	Organization	Program Name	Region	County	Requested Amount	Granted Amount	Summary	Approval Date
6049	St. Lawrence County Chamber of Commerce	Mainstreet Revitalization Program	Mohawk Valley/Northern	St Lawrence	\$50,000	\$25,000	Renovations of historic building as part of Phase 2 of the renovations of Main Street in Brasher Falls.	10/26/2006
6051	Genesee Gateway LD Co.	ShovelReady Infrastructure	Western/Frontier	Genesee	\$100,000	\$100,000	Development of Gateway II Corporate Park in the Town of Batavia. The first gateway park went from vacant to virtually full in 7 years. This 2nd park is another 57 acres that is directly across the highway from the existing park.	09/06/2006
6052	XXXXXXXXXX	Capital Investment Incentive	Western/Frontier	Erie	\$20,000	\$20,000	Construction of 90,000 sq ft manufacturing facility - tenant will design & manufacture	09/15/2006
6054	CEG	Strategic Economic Development Outreach	Capital	11 county region	\$260,000	\$314,000	This is part of the multi year effort and is the continuation of the aggressive global industry attraction campaign, which includes trade show participation, industry specific marketing collateral, sales calls, prospect generation and hosting special events - all targeted at key industry decision makers.	10/26/2006
6056	South Side Innovation Center	Mainstreet Revitalization Program	Central	Onondaga	\$50,000	\$50,000	Vacant warehouse on the S. Salina St. Commerical Cooridor being turned into a new business incubator in the heart of economically depressed community.	10/12/2006
6058	XXXXXXXXXX	Capital Investment Incentive	Mohawk Valley/Northern	Oneida	\$51,500	\$51,500	Company is outgrowing its existing facility and will be constructing a 27,000 sq ft building addition.	10/26/2006
6059	XXXXXXXXXX	ShovelReady Infrastructure	Western/Frontier	Erie	\$100,000	\$100,000	development of 106 acre park	10/26/2006
6061	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	Onondaga	\$4,168	\$4,500	new Energy Efficient HVAC unit	11/07/2006
6062	XXXXXXXXXX	3-Phase Power	Northeast	Washington	\$50,000	\$50,000	need 3-phase power to operate sport park infrastructure	12/20/2006
6064	Buffalo Niagara Enterprise (BNE)	Strategic Economic Development Outreach	Western/Frontier	8 Counties	\$20,000	\$20,000	Perception Anaylisis and Marketing Blueprint over 8 counties.	10/26/2006
6065	XXXXXXXXXX	Capital Investment Incentive	Western/Frontier	Erie	\$250,000	\$250,000	construction of new Headquarters building	10/26/2006
6066	XXXXXXXXXX	3-Phase Power	Capital	Schenectady	\$42,139	\$42,139	Expansion of operation is moving them to new facility. New location needs 3-Phase Power for specific equipment use.	11/07/2006
6067	EDC Warren County	Mainstreet Revitalization Program	Capital	Warren	\$50,000	\$50,000	Rehabilitation of 6,200 SF vacated historic 3-story building on Glen Street in Warren County. Development will be mixed use with new retail and office space.	12/07/2006
6068	XXXXXXXXXX	Capital Investment Incentive	Western/Frontier	Chautauqua	\$250,000	\$250,000	Industrial plant expansion. Expansion will double the volume and increase the quality of the end product. They will be increasing the size of the building and adding machinery and equipment. The electrical infrastructure must be upgraded in order to handle the new machinery & equipment for the expansion.	04/24/2007
6069	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Capital	Albany	\$25,000	\$25,000	Convert the largest electric consuming process in our manufacturing operation from electric infrared heat to natural gas infrared heat.	11/07/2006

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2007 ED PLAN Disbursements								
AP #	Organization	Program Name	Region	County	Requested Amount	Granted Amount	Summary	Approval Date
6070	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	Onondaga	\$6,000	\$6,000	Lower heating costs by installing new natural gas fireplace (freestanding) heaters that are 100% eff/non vented units.	12/07/2006
6074	XXXXXXXXXX	Strategic Economic Development Outreach	Central	Onondaga	\$125,000	\$125,000	Funding for program to foster entrepreneurship in 19-county service area	10/25/2006
6077	XXXXXXXXXX	25-Cycle Investment Program	Western/Frontier	Erie	\$250,000	\$250,000	25 cycle conversion of passenger elevators	12/20/2006
7003	XXXXXXXXXX	Targeted Financial Assistance	Capital	Albany	\$100,000	\$100,000	Power costs represent 75% of their overhead and is a severe competitive disadvantage for them with their industry. They must consider relocation without some relief.	03/15/2007
7007	XXXXXXXXXX	Capital Investment Incentive	Capital	albany	\$50,000	\$50,000	expanding production capacity for expansion - need to upgrade infrastructure	07/18/2007
7010	XXXXXXXXXX	Capital Investment Incentive	Western/Frontier	erie	\$500,000	\$250,000	This plant has immediate growth opportunity to satisfy consumer demand for their products. Looking to bring this business in-house rather than outsource and plant is capacity restrained & requires upgrades to maintain & increase production.	06/14/2007
7013	Onondaga County IDA	Building Ready Upstate	Central	Onondaga	\$30,000	\$30,000	Creation of conceptual master plan of the Clay Business Park - specifically targeted to the Life science industry. The plan will demonstrate that the site is ready and can accomodate 2 100-acre campuses.	03/29/2007
7015	Livingston Co. IDA	ShovelReady Infrastructure	Western/Frontier	Livingston	\$100,000	\$100,000	Infrastructure improvements at Livingston Industrial Complex	04/24/2007
7016	NYS Economic Dev. Council	Cooperative Business Recruitment	Western/Frontier	Albany	\$10,000	\$10,000	Support of the BIO 2007 Tradeshow in Boston	05/29/2007
7027	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Mohawk Valley/Northern	Lewis	\$25,000	\$25,000	upgrading to energy efficiency equipment including premium motor, variable drive retrofit and larger gallon receiver tank.	05/29/2007
7028	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	onondaga	\$25,000	\$25,000	Energy efficient refrigeration system to effectively and adequately cool & freeze refrigerated and frozen products.	05/29/2007
7036	XXXXXXXXXX	Energy Efficiency in the Empire Zones	Central	Cortland	\$25,000	\$25,000	Installation a new energy efficient air conditioning unit in their production area to affect product quality. Without this the owner has to shutdown certain production units to reduce heat w/in the building.	07/18/2007
7045	XXXXXXXXXX	Dairy Industry Productivity	Mohawk Valley/Northern	Lewis	\$3,500	\$3,450	installation of plate cooler The Customer has experienced several power disturbances which has caused technical problems to their sensitive equipment. The power quality measures that they will be installing will allow for proper operation during power disturbances & prevent future damage to the equipment.	08/21/2007
7049	XXXXXXXXXX	Capital Investment Incentive	Central	Onondaga	\$50,000	\$50,000		09/14/2007