



James A. Lahtinen
Vice President
Rates and Regulatory Economics

April 17, 2009

Honorable Jaclyn A. Brillling
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

Re: Case 09-E-0310 - In the Matter of the American Recovery and Reinvestment Act of 2009 - Utility Filings for New York Economic Stimulus - New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation

Dear Secretary Brillling:

In response to Mr. Michael Corso's April 2, 2009 letter regarding the American Recovery and Reinvestment Act of 2009 ("ARRA") for applications to the U.S. Department of Energy ("DOE") under the Energy Delivery and Energy Reliability ("EDER") program, New York State Electric & Gas Corporation ("NYSEG") and Rochester Gas and Electric Corporation ("RG&E") (collectively, "the Companies") hereby submit their list of proposed projects to be submitted to DOE for qualification under the EDER program¹.

The Companies understand that the DOE's formal guidelines for the EDER program are still being developed. The ARRA funds under the EDER program will be dispersed by DOE through a competitive grant process. Furthermore, DOE may provide grants to successful applicants of the EDER program that are between 20% but not more than 50% of the costs of qualifying investments. Thus, other sources must cover the remaining 50%-80% of the costs of these investments, and if such funding sources were to include ratepayer funds, recovery of these costs will require a determination by the Public Service Commission ("PSC" or "Commission") that such costs are reasonable. Requests for funding under the EDER program will have a greater likelihood of acceptance if such applicants have already secured the other funding sources.

The attached list of proposed projects are not currently included in the Companies' base rates, nor would they be included in the Companies' normal rate case capital spending over the next several years. They are incremental expenditures. Therefore, the Companies are willing to proceed with these projects if they are accepted by DOE, the Commission pre-approves recovery from ratepayers, the Companies agree with the DOE terms and conditions for acceptance of the federal funding, and the Commission approves the necessary ratemaking.

¹ NYSEG and RG&E are also considering other energy projects that may qualify under the ARRA that are not included in this DOE/EDER listing.

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The Companies propose a delivery surcharge mechanism to recover from ratepayers the return of and on these investments, and incremental delivery operation and maintenance costs. This surcharge mechanism would become effective soon after the Companies acceptance of the projects the DOE approves for funding under the EDER program. Approval by the Commission of the proposed surcharge mechanism, prior to Companies acceptance of the EDER funding, will provide an appropriate incentive to deploy these projects, and provide the Companies with the necessary assurance that prudently incurred costs will be recovered on a timely basis. If desired, these investments recovered through the surcharge mechanism can be moved to into base delivery rates at the time of the Companies' next rate cases.

The Companies have reviewed and discussed the attached list of projects with PSC Staff on several occasions. For each project the Companies have included, to the extent possible and where applicable:

- A brief project description, including location, equipment list and associated supporting facilities;
- The purpose, rationale, and justification;
- A list of expected benefits;
- The approximate number of jobs to be created or retained;
- The currently estimated total project costs (represented in millions of dollars);
- The amount of funding requested through DOE under the EDER program;
- An indication of the project type
- An indication if a project is "shovel ready", meaning work on a project may commence soon after all needed funding is approved and made available; and
- A project milestone schedule.

Based on the information provided in the above mentioned project list, the current approximation of total cost of all projects, the approximate amount of funding requested through DOE and the approximate amount of funding that must be recovered from ratepayers is (in millions of dollars):

	Estimated Total Project Costs	Funding Requested Through DOE under EDER program	Funding to be Recovered from Ratepayers ²
NYSEG	\$415	\$210	\$210 - \$330
RG&E	\$200	\$100	\$100 - \$160

² Funding provided by DOE could be between 20% and 50% of qualifying investments. The amount to be recovered from ratepayers must then cover the remaining 50% to 80% of the costs.

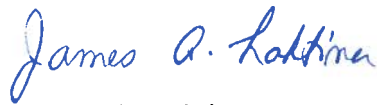
Honorable Jaclyn A. Brillling
April 17, 2009

Page 3

The Companies are aware that it may be necessary to amend this filing to comport with the issuance of DOE's formal guidelines and reflect updates of the estimates.

Please direct any questions pertaining to this filing to Mr. Jeffrey McKinney at (607) 762-7469 or Mr. Henry Masti at (607) 762-7405.

Respectfully submitted,



James A. Lahtinen

Enclosure

cc: Mr. Michael Corso – via email
Ms. Kimberly Harriman – via email
Mr. Henry Masti – via email
Mr. Jeffrey McKinney – via email

New York State Electric & Gas Corporation

Brief Description	Priority Scale 1 (High) to 5 (Low)	Purpose, Rationale or Justification	List Expected Benefits (Quantify Where Possible)	Jobs Created or Retained	Total Project Costs (\$M)	Amount Requested	Project Type - e.g. smart grid, disruption recovery, etc.	Shovel Ready	Utility Submitting Project	Utility contact name	Project Contact Email
SmartGrid/AMI Demonstration and Technology Comparison - Elmira/Horseheads Area. PHASE 1 - Expand the existing WIMAX communications system to provide smart metering with electric and gas meters and upgrade selected control points for the electric and gas system within the WIMAX communications "cloud". Communicate all the data on a real time basis to the Elmira Service Center, the Energy Control Center in Vestal, and the ECC and Customer Billing Center at West Avenue in Rochester. Compare the performance and cost of a WIMAX system to an upgrade of the existing digital radio system that would allow data transmittal from the same smart meters and system control points. PHASE 2 - Evaluate the Potential Use of SmartGrid with WIMAX to Optimize Transmission Grid Performance by Integrating Real Time Wind Turbine Information with existing or proposed energy storage options.	1	PHASE 1 of this project would take advantage of existing WIMAX technology installed at the Bradley Farms M&R Station and existing tower locations. The system currently provides real time video transmission to the Elmira Service Center. We would be focused on expanding, comparing and evaluating two types of communication technologies (WIMAX and digital radio) that would take advantage of existing WIMAX technology installed, an existing digital radio system that is currently limited to voice only communications, and a series of existing tower location. The Horseheads area is served by 4 distribution circuits, each of which are currently overloaded on peak day. A "smart" system capable of communicating via either technology will be installed that will allow reclosing, sectionalizing and monitoring and will minimize the outage and increase the ability to maintain service to a larger number of customers during adverse circumstances. The inclusion of an energy management system at each customer location would provide the customer and Company with the ability to manage the load during peak periods, thereby reducing our peak load requirements and potentially reducing customer energy costs.	The customer would be provided with information on their energy use on a real time basis allowing them the opportunity to modify their usage and reduce costs. This would ultimately provide reductions in energy consumption, carbon footprint and energy cost. A "smart" system that would allow reclosing, sectionalizing and monitoring would minimize the number of customers impacted during an outage. The inclusion of an energy management system at each location would allow the customer as well as the utility the ability to manage the load during peak periods, thereby reducing our peak load requirements. This should also provide reduced operating costs by eliminating meter reading, turn on/off, estimated reads, remote read verification, the ability to examine the health of the grid - locate areas of increase losses, immediate outage notification, reduced restoration times, etc. The addition of SmartGrid communications technology with one or more wind farms would provide the ability to support the use of various renewable energy sources and energy storage by maximizing the availability and matching the source with the load. Ultimately a well balanced system that includes "smart" natural gas meters should provide a greater opportunity	20 Retained	11.2	5.6 50% matching grant	SmartGrid	Yes	NYSEG	JB Marcan	jbmarcan@nyseg.com

New York State Electric & Gas Corporation

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SmartGrid/AMI Demonstration of the Cooperative Use of Broadband WIMAX in Cooperstown for Community and Utility Services. Install smart meters and the communications infrastructure that would provide broadband capabilities as part of the installation of the gas system in the village of Cooperstown. This would provide a comparative demonstration to the proposed installation in the Elmira/Horseheads area, expand on the number and type of meters and devices as well as complement the interests that exists in many upstate communities to have broadband capability where it currently does not exist. A separate, secure communications channel would be provided for all utility requirements.	1	The Cooperstown area is served by two distribution circuits. A "smart" system will allow reclosing, sectionalizing and monitoring, will minimize the number of customers impacted by an outage and increase the ability to maintain service to a larger number of customers during adverse circumstances. The inclusion of an energy management system at each location would provide the customer and utility with the ability to manage the load during peak periods, thereby reducing our peak load requirements and potentially reducing customer energy costs. This should also provide reduced operating costs by eliminating meter reading, turn on/off, estimated reads, remote read verification, the ability to examine the health of the grid - locate areas of increase losses, immediate outage notification, reduced restoration times, etc.	Customers would be provided with information on their energy use on a real time basis allowing them the opportunity to modify their usage and reduce costs. This would ultimately provide reductions in energy consumption, carbon footprint and energy cost. A "smart" system that would allow reclosing, sectionalizing and monitoring would provide the utility with the ability to minimize the number of customers impacted during an outage. The inclusion of an energy management system at each location would allow the customer as well as the utility the ability to manage the load during peak periods, thereby reducing our peak load requirements. This should also provide reduced operating costs by eliminating meter reading, turn on/off, estimated reads, remote read verification, the ability to examine the health of the grid - locate areas of increase losses, immediate outage notification, reduced restoration times, etc. Ultimately a well balanced system that includes "smart" natural gas meters should provide a greater opportunity to deploy and integrate distributed resources.	5 Retained	2.4	1.2 50% matching grant	SmartGrid	Yes	NYSEG	JB Marean	jbmarean@nyseg.com
Smart Grid - MHP Metering	2	This project compliments the Mandatory Hourly Pricing initiative ordered by the PSC. By providing large C&I (>300kW) customers with access to real-time energy prices the expectation is that they will shave their peak loads and reduce costs. NYSEG is scheduled to install 500 more MHP customers in 2009.	Peak Load Reduction and Reduced Emissions	2 Retained	0.25	.125 50% matching grant	Smart Grid HR 1-29 --1-30	Yes	NYSEG	Jeffrey L. McKinney	jmckinney@nyseg.com

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Smart Grid/AMI - Full Project Roll Out	3	Real Time (or near Real time) data collection and detection of meter readings, voltage and current levels, outages, theft activity, ability to control other devices on the system such as capacitors, ability to integrate HAN (Home Area Networks) to give customers the ability to control loads based on pricing signals. An AMI MDMS (Meter Data Management System) would also give you the ability to sanitize the data, allow for pre-pay options, notice any strange changes in customer usages, etc. Collecting the meter readings through AMI also mean the elimination of estimated customer bills, thus reducing the amount of complaints about our billing process and ultimately likely reducing the number of calls related to billing issues. Savings are typically seen by the elimination of the meter reading workforce, however, there may need to be some more people added to the FSR workforce to handle meter issues (such as when a meter stops communicating).	Reduce Peak Loads, Reduce Operating Costs, and Increase Reliability.	75 Retained and 100 Created for the project term	249.0	124.5 50% matching grant	Smart Grid HR 1-29 -- 1-30	Yes	NYSEG	Jeffrey L. McKinney	jlmcKinney@nyseg.com
Bulk Transformer Replacement Initiative - Purchase spare transformers for the bulk power system; purchase replacements for transformers near end of life.	2	Infrastructure Replacement.	Increased Reliability and Energy Loss Reductions thereby Reducing Carbon Emissions and Environmental Risk.	2 Retained and an unknown number of transformer manufacturing jobs created.	70.0	35.0 50% matching grant	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	NYSEG	Jeffrey L. McKinney	jlmcKinney@nyseg.com

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Efficient Transformers Distribution Projects -	2	Purchasing core efficient transformers will reduce losses and associated system costs. Loss reductions range from 25-50% depending on transformer characteristics and loading. New transformers will contain environmentally-friendly, non-oil based dielectric fluid to reduce impacts in the event of fluid spill.	Increased Reliability and Energy Loss Reductions thereby Reducing Carbon Emissions and Environmental Risk.	2 Retained and an unknown number of transformer manufacturing jobs created.	31.5	15.75 50% matching grant	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	NYSEG	Jeffrey L. McKinney	jmckinney@nyseg.com
TDJRP Infrastructure - NYSEG Transmission and Distribution Infrastructure Replacement Program (TDIRP). Program started in 2005 and is intended to replace distribution, transmission, and substation equipment to sustain reliability.	2	Maintain reliability through targeted replacement of aged or unreliable equipment.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	25 Retained and an unknown number of wire and pole manufacturing jobs created.	Incr. 10.0+ per year	25.0+ 50% matching grant assume 5 yrs.	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	NYSEG	Jeffrey L. McKinney	jmckinney@nyseg.com
Smart Grid Capacitor Control and Additions	2	To be developed by NYISO.	Reduce power system losses as determined by NYISO.	??	??	??	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	NYSEG	Jeffrey L. McKinney	jmckinney@nyseg.com
Phasor Measurement Units	3	To be developed by NYISO.	Enhanced operational control. TBD	??	??	??	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	NYSEG	Jeffrey L. McKinney	jmckinney@nyseg.com

Rochester Gas and Electric Corporation

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Smart Grid - MHP Metering	2	This is a Mandatory Hourly Pricing initiative ordered to be done by the PSC. The intent is that large C&I customers (>300kW) will shave their peak loads if they know what the energy prices are at different hours of the day. At RG&E, we have proposed to integrate the Reactive Metering project with the MHP project. Therefore, the costs will be allocated in those R's and B's below. (The MHP project at RG&E will consist of 250 new meters in estimated for 2010 and 250 more estimated in 2011, but we are awaiting PSC approval. The costs include the installation of a new recording meter, but the customer also has to provide a phone line to the meter.	Peak Load Reduction and Reduced Carbon Emissions	2 Retained	0.1875	0.09375 50% matching grant	Smart Grid HR-1-29,30	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com
Smart Grid - Reactive Metering	2	RG&E currently has no customers on a Reactive Tariff. As far as we know, RG&E is the only utility in NY that does not have a reactive tariff. The intent with proposing a Reactive Tariff is that once customers are penalized for poor power factor, they will install appropriate equipment to reduce their power factor, thus clearing up some space on our grid for more power capacity. At RG&E, the proposal filed, but not yet approved by the PSC, is that we will install 250 Reactive, recording meters in 2010, and 250 more in 2011. These meters will be capable of measuring reactive power as well as recording the active kWh's for the MHP program proposed above.	Peak Load Reduction and Reduced Carbon Emissions	2 Retained	0.1875	0.09375 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com

Rochester Gas and Electric Corporation

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Smart Grid/AMI - Full Project Roll Out	3	<p>Real Time (or near Real time) data collection and detection of meter readings, voltage and current levels, outages, theft activity, ability to control other devices on the system such as capacitors, ability to integrate HAN (Home Area Networks) to give customers the ability to control loads based on pricing signals. An AMI MDMS (Meter Data Management System) would also give you the ability to sanitize the data, allow for pre-pay options, notice any strange changes in customer usages, etc. Collecting the meter readings through AMI also mean the elimination of estimated customer bills, thus reducing the amount of complaints about our billing process and ultimately likely reducing the number of calls related to billing issues.</p> <p>Savings are typically seen by the elimination of the meter reading workforce, however, there may need to be some more people added to the FSR workforce to handle meter issues (such as when a meter stops communicating).</p>	<p>Reduce Peak Loads, Reduce Operating Costs, and Increase Reliability.</p>	<p>30 Retained and 50 Created for the project term.</p>	<p>111.0</p>	<p>55.5 50% matching grant</p>	<p>Smart Grid HR-1-29,30</p>	<p>Yes</p>	<p>RG&E</p>	<p>Jeffrey L. McKinney</p>	<p>jlmckinney@rge.com</p>

Rochester Gas and Electric Corporation

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Bulk Transformer Replacement Initiative - Purchase spare transformers for the bulk power system; purchase replacements for transformers near end of life.	2	Infrastructure Replacement.	Increased Reliability and Energy Loss Reductions thereby Reducing Carbon Emissions and Environmental Risk.	2 Retained and an unknown number of transformer manufacturing jobs created.	22.0	11.00 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com
Efficient Transformers Distribution Projects -	2	Purchasing core efficient transformers will reduce losses and associated system costs. Loss reductions range from 25-50% depending on transformer characteristics and loading. New transformers will contain environmentally-friendly, non-oil based dielectric fluid to reduce impacts in the event of fluid spill.	Increased Reliability and Energy Loss Reductions thereby Reducing Carbon Emissions and Environmental Risk.	2 Retained and an unknown number of transformer manufacturing jobs created.	10.7	5.35 50% matching grant	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com
TDIRP Infrastructure - RG&E Transmission and Distribution Infrastructure Replacement Program (TDIRP) provides for the replacement of distribution, transmission, and substation equipment to maintain reliability.	2	Maintain reliability through targeted replacement of aged or unreliable equipment.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	25 Retained and an unknown number of wire and pole manufacturing jobs created.	Incr. 5.0+ per year	12.5+ 50% matching grant assume 5 yrs.	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com
Smart Grid Capacitor Control and Additions	2	To be developed by NYISO.	Reduce power system losses as determined by NYISO.	??	??	??	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com

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Station 42 Capacitor Banks - Add four (4) 20MVAR capacitor banks at Station 42. One capacitor bank will be located on each of the four 34.5kV buses.	2	Station 42 uses approximately 60MVAR of reactive supply. Presently this reactive capability must be brought through the two (2) 115kV cables and 115/34.5kV transformer that supply the station. This heavy VAR flow uses the limited capacity of the cable and the transformers especially under contingency conditions of loss of one of the cables or one of the transformers. Adding the reactive support will provide significant voltage benefits to Station 42 which will ripple back to Station 13A which supplies Station 42. This area is very sensitive to the 115kV source voltage which is most predominate during high loads and most notably if Ginna Station trips off line. The capacitor bank additions should increase post-contingency voltages at Station 13A by approximately 2%.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and associated equipment manufacturing jobs created.	2.1	1.05 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com
Station 42 115kV SVC - Add a +/- 150MVAR SVC on the 115kV system near Station 42	2	Station 42 uses approximately 60MVAR of reactive supply and is a low-point for voltage in the Rochester area. Dynamic voltage support is required for voltage transient stability for large contingencies which include the tripping of Ginna. Adding the dynamic support where it is needed will provide significant voltage stability to the entire Rochester area.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	4 Retained and an unknown number of SVC/capacitor and associated equipment manufacturing jobs created.	17.5	8.75 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com

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Station 56 Capacitor Banks - Add an additional 9MVAR to both 34.5KV 9MVAR capacitor banks at Station 56.	2	Station 56 serves approximately 92MW of load which is 4,427 customers. During high load periods, loss of one of 115/34.5KV transformers results in significant overloading the transformers. This would result in shedding approximately 40MW of load to relieve the over load. The period of exposure is approximately 90 hours per year. The criteria used for this project is the single contingency criteria for the transmission system that provides for, loss of any element results in the remaining elements being below their long-term rating.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and associated equipment manufacturing jobs created.	0.8	0.4 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nvsrg.com
Station 48 Capacitor Banks - Add an additional 16MVAR capacitor bank to the 34.5KV at Station 48.	2	Station 48 serves approximately 100MW of load which is 2327 customers which includes Rochester Products. During high load periods, loss of one of 115/34.5KV transformers results in significant overloading the transformers. This would result in shedding approximately 10MW of load to relieve the overload. The period of exposure is approximately 30 hours per year. The criteria used for this project is the single contingency criteria for the transmission system that provides for loss of any element results in the remaining elements being below their long-term emergency rating.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and associated equipment manufacturing jobs created.	0.5	0.25 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nvsrg.com

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Station 198, 218, 194, and 181 Capacitor Banks - Add 34.5KV (2) - 1.5MVAR capacitor bank at Wolcott (181), (1) - 1.5MVAR capacitor bank at Station 198, a (1) - 4.0MVAR capacitor bank at Station 218, and a (1) - 1.5MVAR capacitor bank at Station 194. All would be voltage controlled.	2	Clyde 34.5kV substation serves approximately 25MW of load which is 9217 customers. During high load periods, the region served by Clyde substation will have low-voltages. This would result in shedding approximately 10MW of load to relieve the low-voltage. The period of exposure is approximately 175 hours per year. The criteria used for this project is the system normal criteria for the transmission system that provides when all elements are in-service all elements will be above the pre-contingency voltage requirement.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and equipment manufacturing jobs created.	2.7	1.35 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com
Station 180 and 128 Capacitor Banks - Add a 115KV capacitor bank at Station 180 and a 115KV 20MVAR capacitor bank at Station 128.	2	The Genesee region serves approximately 55MW of load which is 13,188 customers which includes Angelica municipal. During high load periods and with local generation off, the Genesee region will have low-voltages. This would result in shedding approximately 10MW of load to relieve the low-voltage. The period of exposure is approximately 300 hours per year. The criteria used for this project is the system normal criteria for the transmission system that provides when all elements are in-service all elements will be above the pre-contingency voltage requirement.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and equipment manufacturing jobs created.	2.2	1.1 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com

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Station 168 Capacitor Banks - Add a 12MVAR capacitor bank to both 34.5KV buses at Station 168.	2	Station 168 serves approximately 70MW of load. During high load periods, loss of one of 115/34.5KV transformers results in significant MVAR through the transformer and overloading the transformers. This would result in shedding approximately 10MW of load to relieve the overload. The period of exposure is approximately 90 hours per year. The criteria used for this project is the single contingency criteria for the transmission system that provides for loss of any element results in the remaining elements being above the post-contingency voltage requirement.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and associated equipment manufacturing jobs created.	1.0	0.5 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com
Station 127 and 125 and 120 Capacitor Banks - Add 34.5KV (2) - 3.0MVAR capacitor bank at Station 127, (2) - 3.5MVAR capacitor bank at Station 125, and a (1) - 7.2MVAR capacitor bank at Station 120. All would be voltage controlled.	2	Station 121 serves approximately 48MW of load which is 8321 customers. During high load periods, Station 121 and surrounding substations will have low-voltages. This would result in shedding approximately 15MW of load to relieve the low-voltage. The period of exposure is approximately 175 hours per year. The criteria used for this project is the system normal criteria for the transmission system that provides when all elements are in-service all elements will be above the pre-contingency voltage requirement.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and associated equipment manufacturing jobs created.	2.5	1.25 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmckinney@nyseg.com

Rochester Gas and Electric Corporation

Brief Description	Priority Scale 1 (High) to 5 (Low)	Purpose, Rationale or Justification	List Expected Benefits (Quantify Where Possible)	Jobs Created or Retained	Total Project Costs (\$M)	Amount Requested	Project Type - e.g. smart grid, disruption recovery, etc.	Shovel Ready	Utility Submitting Project	Utility contact name	Project Contact Email
Station 121 Capacitor Banks - Add a 115KV 75MVAR capacitor bank at Station 121.	2	Station 121 serves approximately 38MW of load which is 8300 customers and several key 115KV transmission lines. During high load periods, loss of Ginna results in instantaneous low-voltages at Station 121 and adjacent substations including Station 13A. The period of exposure is approximately 90 hours per year. The criteria used for this project is the single contingency criteria for the transmission system that provides for loss of any element results in the remaining elements being above the post-contingency voltage requirement.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and equipment manufacturing jobs created.	1.2	0.6 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com
Station 71 Capacitor Banks - Add a 115KV 50MVAR capacitor bank at Station 71.	2	Station 71 serves approximately 38MW of load which is 6779 customers. During high load periods, loss of the 917 line source from Station 7 results in low-voltages at Station 71 and adjacent substations. This would result in shedding approximately 20MW of load to relieve the low-voltage. The period of exposure is approximately 90 hours per year. The criteria used for this project is the single contingency criteria for the transmission system that proves for loss of any element results in the remaining elements being above the post-contingency voltage requirement.	Reduction in outage frequency and duration resulting in increased reliability, improvement in system losses, and reduced carbon emissions.	2 Retained and an unknown number of capacitor and equipment manufacturing jobs created.	1.2	0.6 50% matching grant	Electric delivery: Energy reliability HR-1-24, 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com
Phasor Measurement Units	3	To be developed by NYISO.	Enhanced operational control. TBD	??	??	??	Electricity Delivery and Energy Reliability HR 1-24 -- 1-25	Yes	RG&E	Jeffrey L. McKinney	jlmcKinney@nyseg.com

SCHEDULE - SMARTGRID ELMIRA/HORSEHEADS COMMUNICATIONS EVALUATION
 (\$M) Q 1 Q 2 Q 3 Q 4 Q 5 Q 6 Q 7 Q 8

PHASE 1 - DISTRIBUTION GRID

INSTALL WIMAX COMMUNICATIONS "CLOUD"	X	X							
INSTALL IT HARDWARE/SOFTWARE	X	X							
UPGRADE RADIO SYSTEM TO ALLOW DATA		X	X						
INSTALL "SMART" METERS AND CONSUMER PORTAL		X	X	X					
INSTALL DISTRIBUTION HARDWARE		X	X	X					
TESTING AND EVALUATION					X	X			
REPORT PREPARATION									X
CONTINGENCY AND PROJECT MANAGEMENT									
PHASE 1 SUBTOTAL									\$8.3

PHASE 2 - WIMAX WITH WIND FARMS

INSTALL WIMAX AT WIND FARMS		X	X	X					
TEST COMMUNICATIONS TO CENTRAL POINT		X	X	X					
INTEGRATE WITH PHASE 1 WIMAX SYSTEM			X	X					
EVALUATION					X	X			
REPORT PREPARATION									X
REPORT PREPARATION									
CONTINGENCY AND PROJECT MANAGEMENT									
PHASE 2 SUBTOTAL									\$2.9
FINAL REPORT									

TOTAL PROJECT COST (\$M) \$11.2

PHASE 1 Cost/Sq Mile for a WIMAX System = \$250,000, Horseheads area = 4 sq. miles w/ an average of 500 customers/sq mile; Cost per gas and electric meter set plus energy management system w/ labor = \$500; Grid reclosing, sectionalizing, monitoring equipment plus an RTU = \$75,000/unit, 12 units required; IT Hardware/GIS distribution system model and communications software = \$1.5M; Upgrade to digital radio system to handle data = \$2.5M; 20% Contingency.

PHASE 2 cost estimates for 2 locations - WIMAX at \$250,000/sq mile with the average wind farm covering 4 sq miles = \$1,000,000; communication systems = \$200,000/ wind farm; 20% contingency

SCHEDULE - SMARTGRID COOPERSTOWN COMMUNICATIONS EVALUATION*

(\$M) Q 1 Q 2 Q 3 Q 4 Q 5 Q 6 Q 7 Q 8

DISTRIBUTION GRID

INSTALL WIMAX COMMUNICATIONS "CLOUD"	X	X							
INSTALL IT HARDWARE/SOFTWARE	X	X							
INSTALL "SMART" METERS AND CONSUMER PORTAL		X	X	X					
INSTALL DISTRIBUTION HARDWARE		X	X						
TESTING AND EVALUATION				X	X				
REPORT PREPARATION							X		
CONTINGENCY AND PROJECT MANAGEMENT									
FINAL REPORT									X

TOTAL PROJECT COST (\$M) \$2.4

Cost/Sq Mile for a WIMAX System = \$250,000, Cooperstown area = 2 sq. miles w/ an average of 956 customers/sq. mile; Cost per gas and electric meter set plus energy management system w/ labor = \$500; Grid reclosing, sectionalizing, monitoring equipment plus an RTU = \$75,000/ unit, 3 units required; IT Hardware/software = \$300,000; 20% Contingency

*Project is contingent upon acquiring an approved franchise for a natural gas distribution system in Cooperstown