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James A. Lahtinen PM 5:21  
Vice President  
Rates and Regulatory Economics

November 7, 2008

Honorable Jaclyn A. Brilling  
Secretary  
New York State Public Service Commission  
Three Empire State Plaza  
Albany, New York 12223

Re: Case 07-M-0906 – Generation Interconnection Operating Standards and Procedures

Dear Secretary Brilling:

Pursuant to Appendix 3, Paragraph 5 of the Abbreviated Order Authorizing Acquisition Subject to Conditions, issued and effective September 9, 2008, in Case 07-M-0906,<sup>1</sup> New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation referenced to herein as the "Companies," hereby file their Generation Interconnection Operating Standards and Procedures ("Standards").

The enclosed document clearly defines interconnection criteria and the process and procedures that the Companies will use to provide assurance of transparency in decisions regarding the provision of interconnection to generators. The Standards establish guidelines for generation interconnections to provide generators with open access to the Companies' transmission and distribution systems, and cover all types of generators. These Standards provide that all generators, regardless of energy source or interconnection type, shall be treated in an open, fair and comparable manner through the Standards.

Please direct any questions to Mr. Hank Masti, Director-Transmission at 607-762-7405.

Respectfully submitted,

James A. Lahtinen

Enclosure

cc: Active Parties

<sup>1</sup> Case 07-M-0906 - Joint Petition of Iberdrola, S.A., Energy East Corporation, RGS Energy Group, Inc., Green Acquisition Capital, Inc., New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation for Approval of the Acquisition of Energy East Corporation by Iberdrola, S.A., Abbreviated Order Authorizing Acquisition Subject to Conditions (Sept. 9, 2008).

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BEFORE THE  
NEW YORK STATE  
PUBLIC SERVICE COMMISSION

RECEIVED  
PUBLIC SERVICE  
COMMISSION  
EXECUTIVE OFFICE  
ALBANY

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Joint Petition of IBERDROLA, S.A.,  
Energy East Corporation, RGS Energy Group, Inc.,  
Green Acquisition Capital, Inc.,  
New York State Electric & Gas Corporation and  
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Approval of the Acquisition of  
Energy East Corporation by IBERDROLA, S.A.  
-----X

Case 07-M-0906

**NEW YORK STATE ELECTRIC & GAS CORPORATION AND**  
**ROCHESTER GAS AND ELECTRIC CORPORATION**  
**GENERATION INTERCONNECTION OPERATING**  
**STANDARDS AND PROCEDURES**

November 7, 2008

## **New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation Generation Interconnection Operating Standards and Procedures**

### **I. Purpose**

- A. This document sets forth the Generation Interconnection Operating Standards and Procedures (the "Standards") for New York State Electric & Gas Corporation ("NYSEG") and Rochester Electric and Gas Corporation ("RG&E") (each, a "Company" and collectively, "the Companies").<sup>1</sup> These Standards establish guidelines for providing generators open access to the Companies' transmission and distribution systems. The Standards will be available on NYSEG's and RG&E's public websites located at:

<http://www.nyseg.com/SuppliersAndPartners/interconnectioninfo.html>

and

<http://www.rge.com/SuppliersAndPartners/interconnectioninfo.html>

- B. The Standards apply to all types of generation facilities. All generators regardless of energy source or interconnection type will be treated in an open, fair and comparable manner throughout this process.

### **II. Business Standards**

- A. The business standard of each Company is to facilitate connection to such Company's transmission or distribution systems for all those generators who desire to do so (the "Interconnection"), without prejudice, on a first-come, first-served basis, contingent upon a generator's progress in completing its respective interconnection responsibilities, and, to the extent applicable, consistent with the requirements of the New York Independent System Operator, Inc.'s ("NYISO") Open Access Transmission Tariff (the "Tariff").

### **III. Communications, Record Keeping and Records Retention**

- A. All of the Companies' employees will document Interconnection-related communications with developers of generation. Each Company's Transmission Services Departments (each, "Transmission Services") will maintain master files on all Interconnections with such Company's transmission or distribution system. These

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<sup>1</sup> This document was prepared pursuant to Item # 5 of Appendix 3 of the Abbreviated Order Authorizing Acquisition Subject to Conditions in Case 07-M-0906. Case 07-M-0906 - Joint Petition of Iberdrola, S.A., Energy East Corporation, RGS Energy Group, Inc., Green Acquisition Capital, Inc., New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation for Approval of the Acquisition of Energy East Corporation by Iberdrola, S.A., Abbreviated Order Authorizing Acquisition Subject to Conditions (Sept. 9, 2008).

files will contain a complete and accurate record of all Interconnection-related written documentation, will be maintained in a secured location and retained for a period of ten years following the receipt of an Interconnection request. Upon request from the New York State Department of Public Service Staff ("Staff") and, to the extent applicable, subject to the confidentiality provisions set forth in Attachment X of the NYISO Tariff, the Companies will make available to Staff records of communications with generation developers in a timely fashion.

- B. Unless otherwise specifically provided in the NYISO Tariff (to the extent that the NYISO Tariff is applicable), the Companies will respond within five business days to any request relating to Interconnection from a generator or other entity involved in the Interconnection process, such as the NYISO. If the requested action cannot be completed within the five-business day period referenced in the previous sentence, the Companies will respond within the five-business-day period with an estimated date for delivery for such a response, and a brief explanation as to why the five-business-day timeframe is not practical or achievable.
- C. All Interconnection requests will be addressed on a first-come, first-served basis, consistent with the requirements in the NYISO Tariff (as applicable). Projects will be logged by each Company's Administrative Assistant - Electric Transmission Services (each, an "Administrative Assistant") and assigned a file number and tracked via Transmission Services status reports. The Companies will report to the Secretary to the New York State Public Service Commission (the "Secretary") on the first calendar day of each month any new request for Interconnection received from any generator in the previous month.
- D. The Companies will notify the Secretary of any disagreement with a developer of generation relating to the performance of Interconnection that cannot be resolved in good faith. Subject to the dispute resolution provisions set forth in Attachment X of the NYISO Tariff, to the extent the NYISO Tariff is applicable, the applicable Company or the affected generator may file a request with the New York State Department of Public Service ("DPS") for mediation or arbitration of the dispute.

#### IV. Residential Policies and Procedures

##### A. Residential Net Metered Generation

1. Under the rules and tariffs approved by the New York State Public Service Commission ("Commission" or "PSC"), two types of generators are eligible for residential net metering: PV systems, no larger than 25 kW, that are interconnected with PSC-approved inverters; and residential windmill systems, no larger than 25 kW, that are interconnected with PSC approved inverters. In addition, hybrid systems that combine PV and wind generation are eligible for net metering. A standard PSC contract for distributed generation units with capacity of 2 MW or less connected in parallel with the utility distribution system will be executed for such eligible facilities.

Excess generation from such eligible facilities will be paid at avoided costs, calculated based on the NYISO day-ahead market prices.

2. Eligible generators must be installed at a customer's primary residence, must be inspected by a licensed electrical inspector, and must meet the standards as defined in the Companies' Bulletin 86-01, "Requirements for Independent Power Producers of Electricity," ("Bulletin 86-01").<sup>2</sup> A proposed project will be evaluated by the applicable Company's Electric System Engineering Department ("Electric System Engineering") to ensure that all reliability and safety standards are maintained. Upon completion of all inspections, a bi-directional meter will be installed, the system will be interconnected and the net metering will be allowed. If a transformer change is required, the customer will be responsible for the tariffed costs associated with such change.

#### B. Residential Back-Up Generators

1. Residential customers seeking to install back-up generators will be instructed to use licensed electricians and inspectors. Only open transition interconnections (defined in Section VII A.(1)(a) below) will be allowed for these installations.

#### C. Residential Nonconforming Generators

1. Residential customers requesting Interconnection of generation that has not been approved by the PSC for net metering, whether based on the technology used by such generator or the size of the generation facility, may still be interconnected.
2. For generators that will be connected behind the customer's meter, the Companies will allow parallel operation, but any excess generation will not be eligible to be sold back to either of the Companies. A detented meter will be installed to prevent such sales. Customers will be instructed to use licensed electricians and inspectors, as required by the New York State Building Code and any applicable local codes. Generators will not be allowed to have a detrimental effect on the utility network.
3. Generators that will be connected on the Company side of the meter will no longer be considered "residential." The customer will be required to set up a new account and be categorized and assigned to the proper interconnection queue. Such Interconnections will be processed as set forth in the IPP Generation Policies and Procedures in Section VIII below.

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<sup>2</sup> A copy of Bulletin 86-01 is available on the Companies' websites identified in Section I (A) above.

## V. Agricultural Policy and Procedures

### A. Agricultural Net Metered Customers

1. Under the rules and tariffs approved by the PSC, two types of generators are eligible for agricultural customer treatment and net metering: wind turbine generators with up to a 500 kW output; and waste digester generators with up to a 1 MW output. A standard PSC contract for distributed generation units with capacity of 2 MW or less connected in parallel with the utility distribution system will be executed for such eligible facilities. Excess generation from such eligible facilities will be paid at avoided costs, calculated based on the NYISO day-ahead market prices.
2. For eligible wind turbine generators, the facility must be installed on a farm that is also the customer's primary residence. The system must be inspected by a licensed electrical inspector, and must meet the Companies' standards as defined in Bulletin 86-01. The proposed project will be evaluated by Electric System Engineering to ensure that reliability and safety standards are maintained. Upon completion of all inspections, a bi-directional meter will be installed, the system will be interconnected and net metering allowed. If a transformer change is required, the customer will be responsible for the tariffed costs associated with such change.
3. For eligible waste digester generators, the facility must be installed and then inspected by a licensed electrical inspector, and must meet the Companies' standards as defined in Bulletin 86-01. The proposed project will be evaluated by Electric System Engineering to ensure that reliability and safety standards are maintained. Upon completion of all inspections, a bi-directional meter will be installed, the system will be interconnected and net metering allowed. If a dedicated transformer change is required for customers that are demand billed, then the customer will be responsible for the tariffed costs associated with such change.

### B. Agricultural Back-Up Generators

1. Agricultural customers seeking to install back-up generators will be instructed to use licensed electricians and inspectors. Only open transition Interconnections (defined in Section VIIA.(1)(a) below) will be allowed for these installations.

### C. Agricultural Nonconforming Generators

1. Agricultural customers requesting Interconnection of generation that has not been approved by the PSC for net metering, whether based on the technology used by such generator or the size of the generation facility, may still be interconnected.

2. For generators that will be connected behind the customer's meter, the Companies will allow parallel operation, but any excess generation will not be eligible to be sold back to either of the Companies. A detented meter will be installed to prevent such sales. Customers will be instructed to use licensed electricians and inspectors as required by the New York State Building Code and any applicable local codes. Generators will not be allowed to have a detrimental effect on the utility network.
3. Generators that will be connected on the Company side of meter will no longer be considered "agricultural." The customer will be required to set up a new account and be categorized and assigned to the proper interconnection queue. Such Interconnections will be processed as set forth in the IPP Generation Policies and Procedures in Section VIII below.

## VI. Commercial Policies and Procedures

### A. Commercial Net Metering Accounts

1. Under the rules and tariffs approved by the Commission, three types of generators are eligible for commercial net metering: (a) PV systems, no larger than 2 MW, interconnected with a PSC approved inverter; (b) wind systems no larger than 2 MW; and (c) hybrid systems that combine PV and wind generation that are collectively no larger than 2 MW. A standard PSC contract for distributed generation units with capacity of 2 MW or less connected in parallel with the utility distribution system will be executed for such eligible facilities. Excess generation from such eligible facilities will be paid at avoided costs, calculated based on the NYISO day-ahead market prices.
2. Eligible generators must be installed at a customer's primary place of business, must be inspected by a licensed electrical inspector, and must meet the standards as defined in Bulletin 86-01. The proposed project will be evaluated by Electric System Engineering to ensure that reliability and safety standards are maintained. Upon completion of all inspections, a bi-directional meter will be installed, the system will be interconnected and the net metering will be allowed. If a transformer change is required, the customer's responsibility for costs associated with such change will be as determined by the PSC.

## VII. Commercial Back-Up Generators

### A. Definitions

1. The Companies are obligated under the Companies' respective tariffs to Interconnect all commercial account back-up generators. These generators fall into the following three categories:

- a. Open Transition: Open transition means there will be a "break before make" switching between generator and utility power. The type and location of the disconnect switch will be of paramount importance. The customer's application must include enough information to ensure that such disconnect switch is satisfactory and installed in the proper location. A Company inspection of the completed generator will confirm that the switch is proper.
  - b. Closed Transition: Closed transition means that when the utility power has been restored, the generator and the utility will operate in parallel for less than 5 seconds to provide an uninterrupted restoration to the customer. The relay and protection system information will be collected with the application. This information will be evaluated by Electric System Engineering to ensure that reliability and safety standards are maintained.
  - c. Parallel Operation: Parallel operation means that the generator is running in parallel with the utility under normal conditions. During utility outages, the generator will maintain power for the customer, but will disconnect from the utility. A more extensive collection of system information is required for parallel back-up generators than for open or closed transition back-up generators. This information will be evaluated by the Electric System Engineering to ensure that reliability and safety standards are maintained. Depending on the size of the back-up generation and percentage of total load provided by the back-up generation, the customer's rate class will be adjusted.
2. For all commercial back-up generator Interconnection requests, the customer will be directed to the Administrative Assistant, who will send the customer a back-up generator information package, letter agreement, and application form. The packages will differ depending on the type of back-up generator for which the customer is requesting Interconnection.
  3. Depending on the type of back-up generation installed, the customer will be moved into the proper rate class. Such back-up generation must be installed in accordance with the applicable Company's standards and policies for safety and reliability.

#### B. Commercial Generation

1. For commercial accounts installing generation on the customer side of the meter, the customer will be required to meet the requirements set forth in Bulletin 86-01. The customer will be responsible for all Interconnection costs. Excess generation from such facilities will be paid at avoided costs, calculated based on the NYISO day-ahead market prices.



2. Generators that will be connected on the Company side of meter will no longer be considered "commercial." The customer will be required to set up a new account and be categorized and assigned to the proper interconnection queue. Such Interconnections will be processed as set forth in the IPP Generation Policies and Procedures in Section VIII below.

## VIII. IPP Generation Policies and Procedures

The following is a chronological mapping of the standards and procedures regarding IPP Interconnection.

### A. Interconnection Inquiry

1. A developer that is seeking Interconnection may contact NYSEG, RG&E or the NYISO. If the NYISO is contacted, see Section VIII C (FERC-Jurisdictional Interconnections) below. Developers that contact NYSEG or RG&E must provide the following basic information regarding the project in order to determine the category of Interconnection: (a) size and type of generation; (b) location of desired Interconnection (substation, line and pole numbers); and (c) firmness of project details.

### B. Determination of FERC Jurisdiction

1. The applicable Company's Manager will use the collected information in consultation with the applicable Company's Electric Distribution Engineering Departments to determine if the requested Interconnection is Federal Energy Regulatory Commission ("FERC") jurisdictional. All FERC jurisdictional Interconnections must comply with FERC requirements, to the extent applicable, and will be directed to the NYISO to lead the Interconnection.
2. If an Interconnection is deemed to be non-FERC-jurisdictional, then the customer must meet the requirements set forth in Bulletin 86-01. The customer will be responsible for all Interconnection costs. Excess generation from such facilities will be paid at avoided costs, calculated based on the NYISO day-ahead market prices.

### C. FERC-Jurisdictional Interconnections

1. All Interconnections deemed to be FERC-jurisdictional will be governed by the provisions of the NYISO Tariff, including Attachments, which is located on the NYISO website:

<http://www.nyiso.com/public/documents/tariffs/oatt.jsp?sort=none&order=descending&maxDisplay=35&=undefined>

2. Subject to any applicable NYISO Tariff or Interconnection Agreement requirements, the metering requirements are specified in the IPP Developer Responsibilities, Practices & Policies.<sup>3</sup>

D. Engineering and Procurement, Construction, Testing and Commissioning, and Commercial Operation

1. The procedures for engineering and procurement ("E&P"), construction, commissioning, and commercial operation include:
  - a. The development and execution of an E&P Agreement, if applicable;
  - b. The developer's provision of security for the costs of the project;
  - c. The applicable Company's provision to NYISO of cost updates and forecasts;
  - d. Construction by the applicable Company of the portions of the project that the applicable Company is responsible for constructing;
  - e. Performance of the applicable Company's testing procedures required prior to commercial operation; and
  - f. Determination of the actual cost of the project and submission of an invoice for such costs to the developer.

2. Property Transfer

- a. The procedures for the transfer of property include: (i) referral to the Real Estate Group; and (ii) the development and execution of property transfer agreements to transfer applicable property rights to the applicable Company.

3. Operations & Maintenance (O&M)

- a. Operations & Maintenance (O&M) charges will be collected from the developers as set forth in the Interconnection Agreement.

IX. Compliance with North American Electric Reliability Corporation's Standards

The Interconnection Operating Standards and Procedures set forth herein are intended to be in compliance with the North American Electric Reliability Corporation's standard FAC-001, Facility Connection Requirements as such standard may be modified from time to time.

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<sup>3</sup> A copy of the IPP Developer Responsibilities, Practices & Policies is attached hereto as Attachment 1.

**New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation  
Generation Interconnection Operating Standards and Procedures**

**Attachment 1**

**IPP Developer Responsibilities, Practices & Policies**

**I. Metering**

A. If a developer is building a substation that NYSEG/RG&E will own, operate and maintain, the developer is required to provide the revenue metering Current Transformer ("CT") and Voltage Transformer ("VT") and also the meter test switch (specifications to be provided at the time the switch is needed). The interchange metering point is to be located where the change of ownership occurs (on the NYSEG/RG&E side of the dashed line). NYSEG/RG&E will order the revenue meter on behalf of the developer and at developer's cost, giving the developer installation specifications, connection drawings and outline diagrams for the meter so the developer can provide the proper panel cutout and drill pattern required for mounting the meter on the panel board. The developer will install the CTs/VTs and complete the wiring between the secondary windings and the meter test switch. The developer will also complete all connections between the revenue meter and the remote terminal unit ("RTU") and the required dedicated phone connection to the RTU. NYSEG/RG&E will mount the revenue meter on the panel board and complete the wiring from the meter side of the test switch to the backplane of the meter. NYSEG/RG&E will then test and commission the revenue metering.

B. Devices used for revenue metering applications in New York must be approved by the Commission. The following Commission website contains a list of approved devices:

[http://www.dps.state.ny.us/approved\\_meter\\_list.PDF](http://www.dps.state.ny.us/approved_meter_list.PDF)

C. Because of the range between maximum generator output and on-site load when the facility is not generating, NYSEG/RG&E requires the use of extended range revenue metering CTs. NYSEG/RG&E will provide final review of all revenue metering devices ordered by the developer before the developer issues purchase orders. NYSEG/RG&E will also require certified factory test data for all revenue metering, CTs and VTs. Such test data must be specific to each device (i.e., representative or typical test data is not acceptable).

## II. RTU

- A. The RTU will be ordered by NYSEG/RG&E (typical lead time is approximately 8 to 12 weeks). System Operations will need approximately one week to test, configure and ship the units.
- B. NYSEG/RG&E will perform the RTU connections, point-to-point testing and commissioning. Communication and metering wiring required for Supervisory Control and Data Acquisition inputs and power for the RTU will be brought to the RTU by the developer to the actual physical location where the RTU is to be mounted with enough slack that all terminations can be made cleanly. It is the developer's responsibility to determine where the RTU will be located and that there is sufficient wire to make all required connections. All wires are to be clearly marked as to their origin and final destination.
- C. The developer must create point definition sheets associated with the SP&C package as per the alarm and point definition guide lines that were provided to them for the specific POI station. From these, the T-sheets (termination sheets) are to be created by the NYSEG/RG&E Systems Operation Group ("ECC"). Once the T-sheets are completed, the connection diagram for the RTU can be created.

## III. Instrument Transformers and Metering

- A. The difference in current magnitude between maximum generation and on-site load when the facility is not generating, requires the use of extended range current transformers "CTs." The instrument transformers are long lead time items and should be ordered as early as possible. The instrument transformers can be shipped directly to the construction site, but NYSEG/RG&E requires that factory-certified test reports be provided that include ratio and phase angle error test results. These reports shall be sent to the NYSEG/RG&E corporate meter lab for review. "Typical" test reports are not acceptable. Test data must be specific to each instrument transformer.
- B. The revenue meter must be shipped directly from the manufacturer to the NYSEG/RG&E meter lab so it can be programmed and tested before it is installed.
- C. NYSEG/RG&E requires use of a NYSEG/RG&E approved Meter Devices test switch. This is a rear connect, flush mounted switch with bussed current neutrals. NYSEG/RG&E's standard is the use of #10 AWG wire for all revenue meter instrument transformer secondary connections.
- D. The developer must install the metering units (three instrument transformer pairs) and complete all wiring from the secondary windings to the test switch and from the test switch to the back of the revenue meter. Also, the developer must make all connections between the revenue meter and the on-site RTU as well as from the revenue meter to the telephone demarcation. NYSEG/RG&E will test and commission the revenue metering system.

#### IV. Dedicated Leased Telephone Channel/Lines

- A. Some POI substations require a telephone and 4 wire leased line for the Remote Terminal Unit communications and plain old telephone ("POT") lines for house service and revenue meter communications. Those requirements will be provided by the Utility Shared Services (Manager Telecommunications) to meet NYSEG/RG&E requirements for these phone circuits. The developer is responsible for ordering and installing the circuits. The telephone company often requires in excess of 12 weeks to install this type of circuit.
- B. In connection with ordering the phone circuits, the phone company will require Ground Potential Rise ("GPR") information. The phone company will use this information to determine if 300 volt point and if High Voltage Special Protection equipment is required. The developer must determine the soil resistivity and design the ground grid such that NYSEG/RG&E can calculate the ground resistance value and determine the GPR. The GPR data will be required by the telephone company to process the circuit order. It is recommended the GPR data be provided at the time the order is placed with the telephone company.